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JAMES R. WALLACE, M.D., F.R.C.S

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ORIGINAL ARTICLES.

WATER SUPPLY AND MALARIAL FEVER.

By R. H. H. MOORE, M.D., T.C.D.
Surgeon-Major, A. M. S.

WITH little or no change since the days of PARKES, we find English writers constantly harping upon the same old theme that the poison of malarial fever may be conveyed into the system by means of drinking water.

Articles advocating this view frequently crop up in the medical journals, and in some of the most recent works on Hygiene and Public Health published in England, as in Thresh's Water and Water Supplies, and others I need not specify, the writers are not ashamed to dolefully repeat the same old tales that have gone the round for years; to the annoyance and irritation of the reader they trot out these faded old Rosinantes which have become spavined and halt and blind from all the criticisms that have been hurled at them, and are now quite unequal to the load they are expected to bear.

The remarkable thing is that no fresh evidence of any kind is ever brought forward; one or two modern instances would make a pleasant change, but the writers prefer antiquity, and treat us to the well barked quotation from HIPPOCRATES, now HIPPOCRATES is well enough, but I am afraid the fathers of medicine do not get much respect from their sons of this generation, unless by chance their opinions happen to coincide.

When HIPPOCRATES said that the spleens of those who drink the water of marshes become enlarged and hard, he doubtless said what was quite true, but it may be presumed that the people who drank marsh water lived in marshes, and under such conditions enlarged spleens are common enough, though this is no evidence that the water is the cause.

Of the same nature is the statement made to PARKES by the villagers of Troy "that those who drank marsh water had fever at all times of the year, while those who drank pure water only, got ague during the late summer and autumn months." It is not probable that people holding such a belief ever drank marsh water from choice; those who drank it lived in marshes where they could get no other water.

The most famous case brought forward by the water theorists is that reported by BOUDIN, which has made the modern *Argo* almost as celebrated as its classical predecessor. Of this PARKES says: "The evidence seems here as nearly complete as could be wished," and with this case I fancy most others will stand or fall.

"BOUDIN'S account is as follows: "In the month of July 1834 the Sardinian ship *Argo* left Bône with 120 healthy soldiers, when she arrived at the lazaret at Marseilles, thirteen men had died in this short passage and been thrown into the sea, 98 men left at the lazaret presenting the most unequivocal signs of malarial infection in all its forms and in all its types, and attaining in some the greatest degree of gravity, or as some would say, pernicionsness."

"While these soldiers were attacked with fever, choleraic, epileptic, comatose, tetanic and other varieties which yielded, as by enchantment, to large doses of quinine, the crew of the ship in striking contrast preserved perfect health; but what could be the cause of such a difference amongst individuals, who apparently at least had been exposed to identically the same influences."

"Enquiry showed that if the crew had preserved their health they owed it to the purity of the water that was provided for their special use; while the soldiers were forced to drink a water drawn from a marshy place close to Bône, and embarked in haste at the last moment."

"The soldiers who escaped were some who, having saved a little money, were able to buy water from the Sardinian sailors."

"This fact demonstrated in a peremptory manner, that marshy matter in the liquid as well as in the gaseous state, when absorbed by the gastro-intestinal as well as by the bronchial mucous membrane can cause malarial fever."

In an extremely able and interesting article published in the *Annales d' Hygiene Publique*, April 1872, p 241, under the title "De l' nigertion des Eaux Marécageuses." M. COLIN tells us how, in looking over some old records, he came across the following, which at once arrested his attention from its close resemblance to the story told by BOUDIN, the paper referred to is by Dr. LEONARD, and will be found in Recueil de Mémoires de Médicine Militaire t. 38, p. 226.

Dr. LEONARD says: "A part of the facts which follow I owe to M. DUBSOUX, Surgeon Aide-Major of the 3rd Bn. 55 of the line. In the month of August 1834, what remained in Africa of the old regiment received an order to leave Bône and return to France. Merchant vessels were chartered for transport; amongst others I engaged a Neopolitan ship which took 125 men on board."

"During the passage of eighteen days, salt provisions had to be used owing to the scarcity of fresh water which, from being stored in old casks, quickly became bad."

"Under these insanitary conditions disease of a serious nature set in, symptoms of typhoid fever appeared, and about thirty of the soldiers died either on board ship or in the lazaret at Marseilles."

These two stories are so similar that, on reading them, the idea at once suggests itself that these both refer to the same event.

There are certain differences it is true, one ship left Bône in July, the other in August, 1834; one was a Sardinian, the other a Neapolitan; one had 125 men on board, the other 120; but it is easy to attach too much weight to these; the last two are very trifling, and only such as two different narrators might easily have made. With regard to the first, as the day of the month is not given in either case, it is open to assumption that the exact date was near the end of July, or beginning of August, in which case the difference is not very great.

The other facts recorded lend themselves to the above inference, though unfortunately none of them tally in such a way as to make the inference a certainty.

Perhaps the most curious thing, on the supposition that we are dealing with two distinct recurrences is, that neither writer makes any allusion to the experiences of the other, though the sick were landed at the same place, the lazaret at Marseilles, at a short interval, and a con-

[illegible] the time, owing to the very crowded, if not unprecedented, [illegible].

Whatever the truth may be, M. Colin, who was in a position to judge, has, after a careful consideration of all the facts and probabilities, come to the conclusion that the two accounts are only two different accounts of the same voyage. As to the nature of the sickness which appeared with such fatal results, he discredits the opinion of Boudin that it was of malarial origin, and supports the explanation given by Dr. Leonard.

His views on this subject have been generally adopted both in France[1] and Germany[2].

Kelsch and Kiener say: "Grave objections have been formulated against Boudin's interpretation of this matter by M. Colin, who is inclined to regard the occurrence as an outbreak of typhoid fever, such as is not uncommonly seen in over-crowded ships, and we have no difficulty in recognising the legitimacy of his doubts."

It is certainly a curious thing that this important contribution of M. Colin to the subject, has been so long over-looked by English writers, who continue their adherence to Boudin's very doubtful opinions long after they have been repudiated by his own countrymen.

Another case which is frequently quoted in support of the theory that malarial fever may be caused by drinking water is that of Dr. Blanc and Mr. Pridhaux. Parkes[3] states that Dr. Blanc in his papers on "Abyssinia" mentions that on the march from Massowah to the highlands, Mr. Pridhaux and himself, who drank water only in the form of tea or coffee, entirely escaped fever; while the others who were less careful suffered; and as Dr. Blanc believes from the water.

Anyone who takes the trouble to read Dr. Blanc's original paper in the *British Medical Journal* of April 1869, will be surprised to find how little there is in it to bear out the construction put upon it by Parkes.

In the first place Dr. Blanc never made the statement that he and Mr. Pridhaux derived their immunity from malarial fever to the fact that they never drank water, except in the form of tea or coffee; or that the others got malarial fever because they did not observe this precaution; though such is the inference that most readers would draw from the above quotation.

Dr. Blanc and Mr. Pridhaux displayed great wisdom and foresight in the means they adopted to ward off sickness of all kinds; everything was thought of, nothing left to chance, and the result was that they succeeded in traversing an unhealthy part of Abyssinia at an unhealthy time of the year, without paying any penalty in the way of sickness.

Their experiences show how malaria may be avoided, even in some of its worst haunts, and afford an admirable lesson to all travellers, in similar circumstances; while Dr. Blanc's paper may be looked upon as a summary of almost all that is known about malarial prophylaxis.

"Each of us," Dr. Blanc says, "had taken with him a folding, very light, iron bedstead, and we made it a rule never to sleep on the bare ground." Again, he says, "everyone slept in the open air wrapped up, face and all in a good thick blanket." And the following extract shows plainly [illegible] to other things, as well as [illegible] they took about their water: "Dew often fell so heavily towards the morning in the Soudan, that everything around us was wet, and had we neglected our [illegible], we would have been alone to blame had we awoke feeling sick and feverish."

They exercised the greatest care in the selection of their camping ground, always avoiding low-lying damp places; at night large fires were always kept up; and, needless to add their clothing was the subject of special attention.

To all these measures there can be no doubt that they owed their unimpaired health; but the deduction that it was due solely to the precautions they took regarding their drinking water is not justifiable.

So much for the immunity enjoyed by Dr. Blanc and Mr. Pridhaux, now for the statement that the others suffered because they were less careful; the inference being that they suffered from malarial fever because they drank impure, unboiled water.

There is one point in Dr. Blanc's narrative which makes it impossible to draw any conclusion between it, regarding the connection between malarial fever and drinking water, and makes any conclusions so drawn valueless.

Dr. Blanc, curious as it may seem, draws no distinction between diarrhœa, dysentery and malarial fever, but classes them all as malarious diseases, so that when he imputes sickness to the drinking water, it is impossible to decide which form of sickness he refers to.

"All our servants," he says, "suffered from some malarial sickness or other, they suffered severely from fever, diarrhœa, and dysentery."

He had to carry his drinking water long distances, and he found that "if the skins are not properly prepared, there soon remains out of several gallons but a few pints of a thick dirty fluid, as disagreeable to the taste as it is unwholesome."

Under such circumstances, and holding the views he did regarding malarious diseases, it is not suprising that he laid great stress upon the importance of a pure water supply when travelling in malarious countries, but no sufficient evidence appears for making him a sponsor for the waterborne theory of malarial fever.

Another case that has come to be regarded as almost classical is that of Tilbury last recorded by Brigade-Surgeon[2] Faught.

In that case it appears that "the Artillery" quartered at Tilbury Fort generally suffered, more or less from ague, while the people at the Railway Station and the coast guards and their families in the ship lying just outside the fort never suffered from malarial poisoning." In the report under consideration this difference was attributed to the fact of a different water supply being used.

The artillery got their water from tanks, which were underground and exposed to soakage from the surrounding salt marsh, while the other people got theirs from a spring at the railway station.

It is certainly a remarkable thing that during the time over which the observations extended, the amount of ague

1 Kelsch and Kiener Traité des Maladies des Pays Chauds, p. [illegible].
2 Hertz, Ziemssen's Encyclopædia, Vol. ii.
3 Practical Hygiene.

2 A. M. D. Reports, Vol. II, p. [illegible].
3 Parkes, op. cit.

[illegible] water used by [illegible].

Date.	[illegible]	[illegible]	[illegible]	Water used.	Remarks.
187[illegible]— Jany. to June.	103	34	33	Barrack tanks.	Water unpurified.
187[illegible]— Jany. to June.	103	12	11·6	Ditto	Filter constructed.
187[illegible]-187[illegible]— Dec. to July.	90	1*	1·1	Spring at Railway Station.	Tanks under repair.
1874-1875— Nov. to March.	53	4	7·6	Barrack tanks.	Water purified.

It will be observed from the above table that when the railway spring water was used, there was only one case of ague, which the footnote suggests was not contracted at Tilbury.

When the tanks were repaired and the water purified, the percentage of admissions was only 7·6, while before these works were carried out it was 33 per cent., and a considerable improvement followed the construction of filters in 1873, which brought the percentage down to 11·6.

This case, formidable as it appears, is open to several serious objections.

With one exception we are not told where the Batteries stationed at the Fort had previously served, the exception is the Battery which was there in 1875, which had just returned from Gibralter.

Regarding the years 1872-1873 and 1874, there is nothing to show whether we are dealing with three distinct bodies of men, or with only one.

I don't happen to know if the Batteries remained at the Fort throughout the whole year, or if it was only occupied during the months in which the observations were taken, but this point does not materially affect the criticisms I have to offer.

There is, of course, nothing surprising in the part of soldiers coming from abroad suffering more from ague than people who have never left England, and the omission to mention whether or not these men had been abroad is certainly unfortunate.

But the shakiest part of this case is the season of the year in which the observations were made.

When ague was a prevalent disease in England, the season for its appearance was late summer and autumn, not mid winter, and a person who stated that he got ague for the first time in January, though he had never left the country, would be liable, to put it mildly, to have his veracity seriously impugned. Yet that is the month in which one of the recorded cases appeared.

In that matter the French are much more methodical than we are, and divide their cases into those of primary invasion and relapses, and they fully recognise that the cases which crop up in considerable numbers in the spring almost invariably belong to the latter class.

It is quite impossible to believe that the poison of malaria has ever been active in England during the winter months, and the fact of a man getting ague at that time is no proof to the contrary, so that we are driven to the inevitable conclusion that [illegible] cases that occurred at Tilbury Fort were relapses, that they had really been contracted elsewhere, and that the poison was not present in air, water, or anything else. Supposing the same Battery had been at the Fort for the first three years after return from abroad, the falling-off in the amount of ague year by year would be only natural.

Supposing they were all different batteries, the number of things to be considered would be so numerous, that, quite putting aside the smallness of the numbers and the shortness of the periods referred to, it would be quite impossible to draw accurate conclusions from their statistics. These three examples I have thought well to consider in detail, others may be dismissed more summarily.

On the authority of M. C[illegible],[1] Parkes states "that in Marseilles puerperal fevers, formerly unknown, have made their appearance since the (water) supply to the city has been taken from the canal of Marseilles." Mauvin[2] has exploded this idea, and has shown that the fevers in question are due to the subsoil becoming saturated from leakage from this same canal. Smart[3] in an interesting paper published in 1878 states that he found a large quantity of organic matter in snow at Camp Douglas in the Rocky Mountains, and advanced the novel theory that organic matter was blown up from malarious regions, precipitated from the atmosphere by means of falling snow, that it then infected the water supply and caused malarial fever.

This idea has been completely refuted by the stringent criticisms of Dr. Woodward,[4] to which any one interested in it might refer.

A very strong case was made out for water infection by Mr. Bettington[5] in 1856, and in 1884 similar evidence was given by Mr. Whalley,[6] also of the Indian Civil Service.

These cases are difficult to criticise, if there was really any truth in the conclusions arrived at by these gentlemen, one would have expected the results to have been cumulative, and many more instances of the same nature to have been recorded since, which would have placed the matter beyond doubt. Such, however, is not the case, and like good wine, these stories do not improve by keeping; they are now indeed somewhat stale.

Regarding Mr. Billington's case Parkes says: "Nothing can well be stronger than the positive and negative evidence brought forward in this paper."

Here we are presented with instances of fever disappearing from native villages simultaneously with the digging of wells, the inference being that the disappearance of the disease was due to the introduction of a pure water-supply. This case may, I think, be compared with that recorded by Mr. Blower of Bedford, also mentioned by Parkes, "where the ague of a village (in England) had been much lessened by digging wells."

The effects of drainage in diminishing or removing malaria in many climates is well known, and there can be no doubt that wells have, to a certain extent, a similar effect in lowering the level of the sub-soil water; perhaps this may be the explanation here.

* [illegible] a few days after the arrival of the Battery.

1 Rev. de Méd. et [illegible] Nov. 18[illegible], p. 4[illegible].
2 Geographical Pathology, Davidson, p. 17[illegible].
3 Mountain fever and malarious waters, Amer. Jour. Med. Sc., Jan. 1878.
4 War of the Rebellion. Pt. III, p. [illegible] note.
5 Parkes op. cit. and [illegible] Annals 18[illegible], p. [illegible].
6 Brit. Med. Journ., 8th Nov. 18[illegible].

In the same way it was observed, that there was a very considerable reduction in the death-rate from phthisis in many towns in England, after the introduction of a regular system of sewers; this, which at first appeared to be the result of improved methods of sanitation, is now universally regarded as due to the lowering of the level of the sub-soil water, caused by the channels dug for the sewers acting as land drains. I mention this merely to show how easily errors may arise in observations of this and kindred kinds.

The great objection to most of the instances in which water is alleged to have caused malarial fever, is that they have occurred in places where the disease is endemic, and where it is almost impossible to demonstrate positively that the poison did not enter the system through the medium of air. As COLIN very justly says, in the paper before alluded to, "it is necessary to have cases where the infected person was exposed to only one of these causes, as for instance persons on board ship or in a residence sufficiently elevated or removed from marshy influence, yet drinking a water of marshy origin, or of persons living in an unhealthy district remaining free from disease through drinking a pure water."

The *Argo* is about the only case ever recorded which fulfilled these conditions and it has been discredited. If malaria could be conveyed (note the system) by drinking water, outbreaks of the disease must have frequently been reported from ships which are obliged to take in water in all parts of the world; and do so with impunity on the West Coast of Africa.

[1] That Surgeon COPPINGER says:—"The statistical returns of the navy show no improvement in the amount of malarial fever in the last thirty years, while great improvements have taken place in the character of the water supply."

If negative evidence were of any value in disproving the water theory, numberless instances could be quoted to show that marshy water and water charged with decaying organic matter, have been used over and over again without causing fever, but such cases are evidently useless for the supporters of the water theory, as far as I am aware, maintain merely that water is an occasional medium, not the sole medium by which the poison of malarial fever is conveyed into the system.

It is very difficult to understand how it is that the idea still holds its ground, considering how little there is to be said in support of it, unless it is due to the great influence of PARKES; for it is evident from his work that the water theory was a favorite one with him.

It is important to note that the theory has been entirely given up in France by COLIN, KELSCH and KUNIS, and in Germany by HERTZ.

It is necessary to add that a move has recently been made to survive it in connection with LAVERAN'S parasite.

LAVERAN[2] expresses himself in favor of it, and BABES[3] says: "According to my latest investigations, it appears that the parasites of malaria pass through one stage of their development in water."

VANDYKE CARTER [4] has also expressed his opinion that the infection is caused by drinking water. These statements must, however, rest on their own merits, for their authors have brought us forward no definite evidence of their truth.

1 Hygiene and Diseases of Hot Climates, (Bartleets) 1889.
2 Traité des Fièvres Palustres, p.p. 453, 454.
3 British Medical Journal, 7th August 1886, p. 263.
4 Scientific Mem. by Med. Off. A. of India Pt. II, 1886.

THE HEALTH AND VICE OF THE BRITISH ARMY IN INDIA.

By WM. HUNTLY, M.A., M.D., B.Sc.,
Nasseerabad.

SOME time ago, a medical brother remarked to me that in the native state town in which his work lay, venereal disease was rife, and in return enquired into my experience. While he spoke, my memory went back to a visit paid some years before to that same town and the sights I then saw. I was wondering if it could be worse; and, with this picture in my mind, casually replied that I did not expect there was as much in my place. Suddenly I was roused out of my abstraction by the wild comment that, of course, the better condition was due to the presence of the old regulations keeping it down, and in a moment I saw I was in a trap. If I had replied that venereal was increased, the retort was ready, namely, the increase was due to stoppage of regulations. This is the kind of medical argument which bears force at the present time. Whichever way an answer is given, the regulations have their appraisers, and to themselves their logic is impeccable. I'm afraid I again fell into a brown study as to the amount of moral obliquity present in my brother medical's brain shown by the indecent haste to give credit to these same vice-propagating rules. But the Indian Government is to find out that it has never given a more forcible impetus to the formation and growth not only in England, but in India, of a sound moral opinion on this subject, and that this opinion is extending beyond Christian men to the minds of our native medical brethren of either professed faiths. Our Government in India look on it only as a government question, concerning itself with their soldiers, and doubtless feels surprised that outsiders should touch it. They are to be rudely wakened up to see that it is a world-wide question and a world deep one, dragging not only our soldiers down to the deepest hell, if immorally answered, but bringing nearer and nearer the question of the several relations of mankind, irrespective of race. Faced honestly and answered truthfully by any nation means for that nation honor, faced dishonestly and answered evasively, and the result with mathematical precision is degradation.

What every lover of truth and Britain's honor desires to hear is this: not what is the wording of the new enactments, but rather how does the Indian Government intend to face and answer the question.

To inform our readers of the various legislative steps which led to the present situation, I beg to submit a somewhat lengthy quotation:—

THE SITUATION.

For nearly a quarter of a century the war against State regulation of vice was waged in this (England) country. During that long period the progress of the views we hold was steady and continuous. The end was that the whole system of regulation, whether in England or in India, was condemned by the unanimous vote of Parliament. Indeed, it was condemned by three separate Parliaments. First, by a resolution of the House of Commons in 1883, by an overwhelming majority slowly and gradually created by the force of conviction. Next, in 1886, in another Parliament, by an Act passed without opposition. And in the third place by a third Parliament in 1888 by a unanimous vote of the House of Commons. These are few causes which have been reiteratedly and continuously successful in three successive Houses of Commons, elected under very varying conditions.

This circumstance to the closely thrown convergence of all lines of argument in the condemnation of Regulation. From the point of view of morality it stood condemned, from that of justice and equality, from that of mixed womanhood and from the gradual and cumulative consent of all Christian churches, as less than from the point of view of science itself as well upheld by Sir James Stansfeld, and Dr. Nevins. To this condemnation was added that of the great economic philosophers, John Stuart Mill, De Laveleye, and Herbert Spencer, all of whom have been always active opponents of Regulation. There was then no chance or snatch element in the Repeal which was obtained. It was built up on a solid and wide basis.

The resolutions of Parliament were obeyed in England, but they were not obeyed in India. There lay the difference. In the distant cantonments medical and military faddists held their old course, and could open their minds neither to new ideas nor to a changed situation. It became evident in 1893 that something stronger was necessary for India than the mere expression of the House of Commons' wish, and in consequence, after considerable discussion, an Act of the Indian Government was passed in 1896 which rendered illegal the practices which had been condemned by the extremely important weight of authority which we have just quoted. That Act then was no snatch measure; it was the deliberate embodiment at the instance of the Parliament of this country, of the firm and solid convictions worked out by the contest and growth of quarter of a century. It is that Act which the Indian Government, with the sanction of Lord George Hamilton, have repealed, hurriedly without one word of discussion, acting on a manufactured panic. Any Government which had the least knowledge of, or respect for, the past would have replied to the Indian demand for something to be done—"Yes, do something, but remember the Act of 1895, the accumulated result of so much enquiry." But, on the contrary, what Lord George Hamilton replied was: You may repeal that Act, and thereby wipe out the lessons of the past." And for that legislative record he substituted merely his own advice not to do the things it forbade—advice which has never been found yet to weigh with the Indian Government. In addition to this, new regulations have been made which themselves amount to the re adoption of the system, and which, viewed in the light of the repeal of the Act of 1895, actually become the old system over again.

To make the matter clear as noon-day, the Act which is to be repealed or has been already repealed by the permission of the Secretary of State for India is as follows.—It forbade "any regulation enjoining or permitting any compulsory or periodical examination of any woman for the purpose of ascertaining whether she is or is not suffering from any venereal disease or is or is not fit for prostitution, or any regulation for the licensing or special registration of prostitutes or giving legal sanction to the practice of prostitution in any cantonment."

In repealing this the door is open to the gradual or rapid introduction of any so-called preventive measures, and thus immoral practices are left hang on the opinion of a very few out here in India, these few being free from any higher authority and responsible to none.

I have written that these regulations hang "on the *opinion* of a very few out here in India." It is well known that it is a mere opinion, and no definite judgment spontaneously emerging and deduced from experience. It has neither sound medical nor sound moral grounds on which to go. I refer to prostitution regulation.

In reference to this "opinion," which has been thrown back in the faces of those medical men who have promulgated an unfit medically to justify itself, and which has received fresh condemnation by the action of General Goschouwen, in Natal, who by choosing the better way has demonstrated that in Natal without regulation disease was only half what it was in Cape Town with regulation; in reference to this I re-read the other day in that old book "The Pilgrim's Progress" words that well apply to the present situation.

Great Heart thus says:—"Because good men heretofore have sinned of infirmity, therefore he, 'Self-will,' had allowance to do it of a presumptuous mind; or if, because a child by the blast of the wind, or for that it stumbled at a stone, fell down, and defiled itself in mire therefore he might wilfully lie down and wallow like a bear therein."

Self-will says:—"To do this by way of opinion, seems abundantly more honest than to do it, and yet hold contrary to it in opinion."

Great Heart replies:—"A very wicked answer; for though to let loose the bridle to lusts, while our opinions are against such things is bad; yet to sin and plead a toleration so to do is worse. The one stumbles beholdens accidentally, the other pleads them into the same."

Old John Bunyan's spiritual insight supplied the answer to the present situation long ere it arose.

Now-a-days the term prostitution does not seem to convey to many minds the horrible nature of the sin it represents, and regulated prostitution seems to represent something cleanly.

By Josephine E. Butler it is called "The abomination of desolations" which, to quote another, transforms the British army into an "ante-chamber to the brothel." *Such is the system in any form and in its brightest prospect!* Those who approve it justify themselves on what are named patriotic and national grounds. Such a policy is Machiavellian in principle, and such patriotism lends fresh proof to the truth of Dr. Johnson's definition of patriotism, that it is the last refuge of a scoundrel. There is so much medical proof, not only in the history of the past regulations, but from the records of other European nations, that no Government medical officer can stand up and justify them openly. It is all a perhaps, all an opinion that there may be a few less cases in hospital, a wretched, despairing, God-condemned position. In the *Indian Medical Record* a soldier not long ago wrote that we would require to start again with a new army of soldiers and a new army of prostitutes, and then we would not succeed to gain the end proposed. We have been informed that Government does not intend to carry on the old regulations, and what is going to be tried is this, that the soldier who presents himself with the disease has to point out the woman from whom infection has been caught, and that this woman must submit to treatment or be expelled from the cantonment.

As we expected. The soldier dreams that those who are not expelled are clean and thanking the Government for trying to make matters safe for him goes on his blind course feeling that he has Government with him. It would be much more effective if Government ordered to be printed in large letters and hung in every mess-room canteen and barracks the simple words of the seventh commandment—"Thou shalt not commit adultery," and let these words print themselves into soldier and officer alike. Those who are at the head of affairs do not see how every section of the army is being degraded by the position they actually have taken up on this question. Every one cries out that it is for the soldier in India, the

[illegible] are [illegible] of the [illegible] state of affairs in India. [illegible] that the soldier in India [illegible] placed [illegible] who have even exaggerated the vile [illegible]. The soldiers [illegible] and tongues [illegible] and the officers need not be [illegible] should [illegible] be carefully scrutinised and criticised.

[illegible] a whit better than they should talk [illegible] said a soldier to me the other day [illegible] letter from his home folks. And what more he [illegible] need not be printed here. There is no officer or man who is too high to be influenced to his hurt by an immoral opinion and by the presence in our midst of regulations which countenance vice. [illegible] best love their [illegible] and their country who seek their good and their true moral well-being. It is false to say we can't get out of this filth by moral means, and it is true to affirm that we shall never get out of it by temporising or tampering with [illegible]. There is a world of difference in renewing these regulations at the present time. We can condone the actions of medical men who thought that on purely medical grounds they were saving men; that day has gone for ever. The regulations are not even sanitarily a safe-guard, and men who propose them go forward, either blinking the facts or ignoring them. When will men learn that what God has judged immoral can never be healthy. For our nation it means only shame and worse.

OBSERVATIONS ON MALARIA PARASITES: MADE IN SECUNDERABAD, DECCAN.*

By Surgeon-Major Ronald Ross, M.R.C.S., D.P.H., I. M. S.

Secundrabad.

The following observations may be of interest in connection with certain statements which have been made of late respecting the malaria parasite, such, for instance, as its scarcity in India and the difficulty of finding it.

From 28th April to 8th September 1895 (that is from the middle of the hot weather little the middle of the rains) the writer examined microscopically the blood of all the fever cases which he found in the station, namely, such cases only as are returned under the heads of malarial and simple continued fever. The large majority of the cases occurred in men of the writer's regiment stationed in a malarious quarter of the large station of Secunderabad; all were natives or half-castes, and nearly all were fresh infections. It is proper to state here that the writer, owing to pre-occupation with other microscopical work at the time, did by no means profess to make any exhaustive examination of the blood in all cases; he used the simple method given by Laveran and Mannaberg, and detailed by Patrick Manson; he examined all cases once, but many cases only once, and it should be added many cases (specially when they were coming in at the rate of 4 or 5 daily) very hastily. Out of 112 casualties the parasites of malaria were found in 69 or 61.6 per cent.; namely, [illegible] spring tertians, 2 quartans, [illegible] fresh summer-autumns, [illegible] cases of crescents only, [illegible] mixed tertians and summer-autumns, and [illegible] of doubtful species. It must be remembered that this 61.6 per cent. of positive cases is [illegible] from a total [illegible] continued fevers which the writer [illegible] thought to be the more common [illegible].

The monthly casualties were as follows:—End of April (hot weather), 4 crescents only [illegible], [illegible] spring tertians, negative. May (hot weather), [illegible] spring tertians, 2 doubtful species, 4 negative. June (rains burst on 12th), 1 crescents, 2 quartans, [illegible] doubtful species, 12 negative (many possibly summer-autumns). July (rains), 12 spring tertians, 13 summer-autumns, [illegible] mixed, 1 doubtful, 10 negative. August (rains), 11 spring tertians, 18 summer autumns, 2 mixed, 1 doubtful, 10 negative. September (to 8th rains), 1 spring tertian, 1 summer-autumn.

Out of the 43 negative cases it is almost certain that a large number were cases in which the parasite had been overlooked; 5 of them, however (though malarial to judge by the symptoms), still gave negative results after repeated examinations of the blood. Of the whole number of cases not more than 2 could be diagnosed with any certainty on a study of chart, symptoms, and blood, as being non-malarial fevers; of these one was a three weeks' fever, and the other probably of a typhoid nature.

The great majority of cases, including such fevers as the writer had formerly thought to be febriculæ, were either at once shown by the microscope to be malarial or judged to be so by a comparison of them with the admittedly positive cases. The various species of the parasites agreed closely with the descriptions of Marchiafava and others; so that there is every reason for thinking that, as Crombie has already pointed out, the Italian classification holds also for India. The quartan, tertian and summer-autumn parasites differed markedly from each other; but, contrary to a statement of Mannaberg, the young parasites of the two former varieties exhibited often an undoubted ring form, though the rings were much larger than those of the summer-autumn parasites. In these varieties the small rings and amœboid forms were, in the majority of cases, the only parasites seen at first but were plentiful and easily found; occasionally, however, larger pigmented forms and "brassy" corpuscles were plentiful, and of course crescents, with the flagellate evolution form, set in as usual after the febrile period. The spring-tertians were generally double, and afforded, like the two quartans, a beautiful series of specimens. In the three mixed cases there were the small summer-autumn rings and amœbæ, in addition to the larger spring forms. It is an interesting point that the summer-autumn fevers set in after mid-summer; but it is impossible to state on one year's experience whether the seasonal variations found in Italy are also found in India; the crescent cases discovered in April and May were all old infections. With regard to the type of fever, it may be remarked that with the natives of India the summer-autumn parasites do not appear to occasion much more severe illness than do the other forms, rather the contrary perhaps. It is important to note that in several persons both quartans and spring tertians recurred, retaining the original type, so that Mannaberg's theory respecting the [illegible] of [illegible] can scarcely be upheld. In the large majority of [illegible] the fever was benign, but in four or five [illegible] accompanied by great prostration, and [illegible] and [illegible]. Two children [illegible] spleen.

* Reproduced from the British Medical Journal [illegible].

[illegible] been diagnosed [illegible] the microscope; one of these [illegible] the only death of the 1[illegible] cases. It was noted that in [illegible] of the [illegible] cases the parasites were [illegible] to be found at all in the peripheral blood; [illegible] in the case of [illegible] parasite only three rings were found in a dozen and [illegible] examinations made at different times. Splenic blood was not made use of.

In almost all the specimens in which the parasite, whether spring-tertian, quartan, or summer-autumn, was found at all it was found within one or two minutes of bringing the microscope to a focus. Experience showed that quickness of microscopic diagnosis depends solely on knowing how to make a specimen and what part of it to examine first: speaking generally, the smaller the parasitic form looked for the shallower must be the film of blood examined. For quick working by one familiar with the subject the only rules of technique which appear to be essential are to obtain a free (not squeezed-out) drop of blood from the finger, and to blow upon the slide in order to remove incessantly falling dust immediately before imposing the charged cover-glass. In large numbers of specimens diagnosis was effected almost immediately. The smallest summer-autumn forms were in reality *cæteris paribus* just as easy to discover as the larger parasites. In short, in the writer's experience, microscopic diagnosis is generally as expeditious as it is beautiful, satisfactory, and complete. Staining was not used; the writer preferring for himself to study the living and moving hæmatozoon in its natural aspect. It may be added here that the writer, since making the observations above referred to, has demonstrated the parasite in three cases to several gentlemen interested in the subject. In two cases not previously examined the time between bringing the microscope to a focus and finding the first parasite was taken by means of a watch and was seen to be 100 seconds in one case and 105 seconds in the second; while in a third case microscopic diagnosis was made under two minutes. Any one who has been shown what to look for in the blood and how to look for it must feel a greater and greater confidence with every case in finding the parasite; and the writer is inclined strongly to endorse from his own experience the opinion of Dr MANSON and others that it is to be seen in the finger blood in the large majority of cases.

With respect to the causation of the disease, it may be stated that the regiment in which the cases occurred numbers some 800 persons, and is stationed in lines of huts about a mile from the marshy origin of a large tank. On first thoughts the marsh would be declared at once to be the origin of the malaria; but there are reasons to traverse this view. For instance, the disease showed a tendency to infest certain portions of the lines more than others, though all parts are equally exposed to the marsh air. Thus out of 70 recruits who lived together in a stone-built house close to the rest of the lines, not one was attacked, though 100 of the remaining 730 men suffered. Again, in two houses all the inmates suffered, namely, father, mother, and children, and all had the same parasite, namely, the [illegible] variety. Such facts as these seem to point to a very local origin of the disease, such as would [illegible] be explicable on MANSON's mosquito hypothesis. The results of the writer's investigation of the behaviour of the crescents in the stomach of the mosquito have already been given by Dr. MANSON before the July meeting of the British Medical Association, and he has had the good fortune of being able to observe that the evolution of the crescents does not only go on within the mosquito, but goes on to a much greater extent than in finger blood. It should be added here that his observations on malarial fevers in Secunderabad strongly suggest the truth of the same theory, on the ground that the poison appears to have a much more localised and particular origin than would be possible on the supposition of a miasm generally diffused in the air.

IS THERE ANY TRUTH IN PHRENOLOGY?

By G. E. CLAXTON, L.R.C.P. & S. Edin.

On Special Plague Duty, Bandikui.

THE medical fraternity regard phrenology as a pseudo-science, yet, strange to say, though it has sadly degenerated since its pristine days, it rests on a scientific basis. Its originator, FRANCIS JOSEF GALL, was an enlightened medico, an original thinker, a painstaking investigator, and, as he was in medical charge of a lunatic asylum, had every opportunity of studying the mental peculiarities of its inmates. Before his time there was no system in vogue for dissecting the brain, so though GALL's method is now longer adopted, he may be regarded as the pioneer of a systematic and practical method of dissection of the brain, and his method has paved the way for other methods of ability, which have certainly led to an intelligent study of the brain substance. All GALL's observations and experiences were compiled in a learned and most "interesting treatise entitled" The functions of the brain; and as the result of many years of patient, thoughtful, diligent study, he was led to map out the majority of the bumps with which phrenologists are so "au fait," and which have been caricaturised as the science of craniology. Our modern methods of studying the cerebral organ, and the electrical researches of FERRIER and others on the brains of monkeys, dogs, pigeons, etc., etc., have totally eclipsed GALL's method of observation it is true, and made the faculty think this savant was erroneous and unscientific in his deductions, and that these do not contain even a modicum of truth in them, but surely a man possessing GALL's mental calibre could not have erred from the truth as his opponents aver, and though his experiences do not tally with the experimental methods of modern neurologists, still, it might be yet proved, that the portions of the brain which do not respond to electrical stimuli, contain the bumps which GALL so laboriously sketched out. No one has yet disproved their existence. Quite recently Sir WILLIAM GOWERS, in his address on "the Neuron and its relation to disease" (vide *British Medical Journal* 6th November 1897), has pointed out that the nerve substance, even in its simplest element the "axis cylinder" is a most complex structure, what then must the surface of the brain be, seeing it is studded with numerous sinuous convolutions and sulci, and possesses

grey substance which varies in thickness in different individuals? It is a well-known fact that the localisation of F. Fracture have been repeatedly confirmed by clinical cases, and that a knowledge of them has enabled the surgeon to ascertain with exactitude the bipod clot or depressed fracture, and give relief in many cases of paralysis, but it has never yet been proved that GALL'S method is incorrect, though we, with our conservative minds, and highly prejudiced feelings, have stigmatised it false, simply because charlatans have abused a science which was founded by one of its then ablest exponents, and by one who was certainly considered a leading neurologist in his day. Had GALL lived in the present age, he would have endeavoured to reconcile and harmonise his method with those now in vogue, and as he was a lover of his science, and did all he could for its advancement—his name being even handed down to posterity in the "columns of GALL" he would most undoubtedly have expunged all the dross, and retained only such matter as would have been of utility to a correct study of the brain. Professor ELLIOTSON, a contemporary of GALL, spoke in the highest praise of his "confrére," in his work on physiology, and most ably defended him against his many opponents. I myself believe there are yet undiscovered methods of investigating the "encephalon" that it only remains for future neurologists to bring these not only to light, but to also place phrenology on its scientific pedestal, and make its study tally with that of modern teaching.

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THE INDIAN HOOKAH: A REAL SANITARY SMOKE.

BY T. MORTON, M.D., L.R.C.P. & S. Edin., L.F.P. & S., Glas.
Mussoorie.

THE question is often asked by patients, and as often answered evasively by consultants, which is the best smoke? To smokers in general it is of supreme importance to possess this knowledge. For a perfect smoke three elements are necessary: the absence of (*a*) heat, (*b*) products of combustion of tobacco, acrid matters and carbonaceous compounds, (*c*) nicotine. A variety of pipes have been invented to obviate the latter two, but heat has always defied pipes. Cigars, cigarettes, and pipes, so long as they are smoked in this world, will always produce it. In a *hookah* we have an ideal smoke, and though prejudice may retard its popular use for a time, it will hold its own against all competitors. The time is not far distant when all Europeans in India smoked their *hookah* without being ashamed of it. I remember some old military officers' only a few years back indulging in their cool *hookah* and inviting their friends, just as the better classes of Hindus and Mahommedans do now, to drop in and have a pull at the *hookah*. An old officer, now over ninety-eight years, tells me that in the early days of John Company every officer had his 'abdar' who looked after the *hookah*, and after dinner was over at mess produced the graceful and sometimes be-jewelled *hookah* to adorn the table. It is fashionable at present to depreciate every thing Indian, and yet when we examine minutely the details of Indian custom and civilization, all are as a rule lost in admiration of the wonderful forethought, utilitarianism, and sanitary wisdom of those ancient people of a bygone age, who were the code manufacturers and lawgivers of this land.

Revenons à nos moutons.—The Turkish *narghelia* is an elegant modification of the *hookah*, and I strongly recommend every smoker to invest in one, till such time as he can reconcile himself to a *hookah* with a long elastic, and coiled-up stem. When he reaches this stage, he will bless the *hookah*. He will enjoy the coolest and least harmful of smokes, and he will smoke less on the whole. The cigarette for various reasons is the most injurious and the most indulged in. An ordinary cigarette smoker burns up at least 20 a day, with the result that his throat is as raw as a beefsteak in the morning, and drier than a bone. If he is given to lifting his little finger, after every two or three cigarettes, there is a strong temptation to have a peg. He might drink water, but as modern literature warns him that there are thousands of bacteria in it, he generally goes in for a whisky and soda. I have come across numerous cases of pharyngitis, and a few of laryngitis in inveterate cigarette smokers. Besides, in some cigarettes there is a quantity of opium also. After a few puffs of these, the smoker either feels giddy, or sickish, and he attributes the effect to nicotine. It is nothing of the sort. It is pure and simple opium-smoking with its baneful results, emaciation, palpitation, dyspepsia, &c. The most scientific as well as the most ancient smoke is the *hookah*, and I strongly urge every one who has the courage to fight fashion and prejudice, to invest in one *at once*.

THE TREATMENT OF CHOREA.

DR. D. DE RENZI has confidence in only three remedies: 1. Absolute rest, avoiding any external excitation whatever, and placing the patient in a dark room. 2. The ascending electrical current along the spinal cord—the best results with a gentle current, progressively increased. 3. Arsenic in large doses, commencing with twenty drops of Fowler's solution each day for children, and doubling this amount for adults. When the chorea ceases medicine should be continued, for the disease returns readily. The nutrition of the patient must be maintained, and good food and gymnastics are useful.—*N. Y. Med. Rec.*

A CASE OF [illegible] OF THE UTERUS; ABDOMINAL HYSTERECTOMY; RECOVERY.*

By Surgeon Dill Russell, M.B., B.Ch., [illegible], and Surgeon-Captain Smith, I. M. S.

Jalandar.

The patient was a Mohammedan woman, 50 years old. She had three children, the youngest being 25 years of age. For eleven years she had noticed a small abdominal swelling. There was then menorrhagia. During the past year the swelling had rapidly increased, and during this period there was complete amenorrhœa. A very large abdominal swelling was found on examination, much larger than a full-term pregnancy. A diagnosis of ovarian or possibly uterine fibrocyst was made. The patient was in a fair state of health. She had been tapped two and a half months previously by a native practitioner. She was prepared for operation in the ordinary way and the usual antiseptic precautions were taken.

The operation on 12th December 1896 lasted 2½ hours. An incision was made from 1½ inch below the umbilicus to within 1½ inch of the pubes. On opening the peritoneum a small quantity of pale ascitic fluid escaped.

On passing the hand into the abdominal cavity, adhesions were found in both iliac fossæ. The cyst was tapped with a trocar and cannula, and a large quantity of thick, bloodstained fluid escaped. The remaining contents being too thick to flow through the tube, and the tumour being too large and too adherent to get through the abdominal wound, the trocar puncture was clamped and the adhesions in the neighbourhood of the pelvis, which were very dense, were dealt with. The right broad ligament was included in a couple of silk ligatures and cut; on the left side the adhesions between the left ovary and the pelvic wall were treated in a similar way, the ovary being left attached to the cyst. The pedicle of the tumour was found to be the elongated and thickened cervix uteri. This was transfixed and tied with stout whipcord in two segments, the ligatures interlocking. The opening into the tumour was next enlarged, and the hand being inserted, a quantity of material like degenerated placenta was removed. The body of the tumour was still so large that the wound had to be extended up to the umbilicus. Adhesions to the great omentum were separated, and the mass turned out and cut off just above the ligatures previously inserted into the pedicle. The mucous membranes of the stump (cervix) was dissected out, and by a few silk ligatures was drawn together like a fish mouth, so as to cover it with peritoneum. The peritoneal cavity was washed out by pouring in gallons of hot boiled water till it came out clear. The abdominal wound was united with silkworm gut stitches through all the layers of the abdominal wall, and a drainage tube was inserted. Both ovaries were removed, the left one being attached to the cyst. It was normal; the right was enlarged and cystic. The [illegible] was an ovarian cyst, which [illegible] from a pea to ½ inch in diameter.

[illegible] days. Once or twice she vomited in a moribund condition, but rallied after hypodermic injections of brandy, strychnine, and morphine.

From the fourth day she made an uneventful recovery; her temperature never went higher than 99.4°F. The tube was removed at the end of [illegible] hours without disturbing the rest of the wound. The wound was dressed on the ninth day, and the stitches removed. It had healed by first intention, except for a small [illegible] where the tube had been. This was quite healed in a week's time. The patient was discharged well at the end of a month, and has continued so since.

Our thanks are due to Dr. Eaton, who gave chloroform for us, and to Miss Mackenzie, M.B., who assisted us at the operation.

Not many successful cases of abdominal hysterectomy have been recorded in the Punjab. The difficulties of the case, the size of the cyst, the adhesions, and the recovery of the patient seem to make the case worthy of being recorded.

CASE OF SPONTANEOUS AMPUTATION OF BOTH LOWER EXTREMITIES IN A NEWBORN INFANT.*

By Surgeon-Captain, C Duke, I. M. S., M.D., F.R.C.S.

Junior Civil Surgeon, Rangoon.

In July 1896, a healthy-looking young Burmese woman, aged about 22 years, brought her male child, aged 2 months, to the General Hospital. She said that the labor was natural, and the child healthy and well-formed. The day after birth she noticed some black and blistered blotches on the backs and fronts of both thighs, and the lower extremities were very cold. The lower extremities swelled and became black, and "the smell was like that of a dead body some days old." The lower extremities gradually separated, and there was no hæmorrhage. She had three children before, and all were healthy.

The child was healthy and well nourished, but both lower extremities were wanting. On the left side there was an oblique, firm, depressed scar over the face of the stump. On the right was a similar scar, but projecting from its centre and surrounded by a small area of ulceration was the black shaft of the femur, which was easily separated by twisting. The heart sounds were normal, and all organs were apparently healthy.

I am not able to discover any reports of similar cases. The case is probably one of the moist gangrene resulting from sudden obstruction of the lower end of the inferior vena cava, occurring either during labor or soon after delivery; but further explanation seems difficult. Unfortunately the mother was not asked whether the child moved the legs. The natural separation of two fully developed lower limbs without a fatal result is also worthy of note.

* Reprinted from the [illegible] by request.

SUCCESSFUL LAPAROTOMY WITH REMOVAL OF BOTH FALLOPIAN TUBES FOR ACUTE SUPPURATIVE PERITONITIS, SUPERVENING UPON DOUBLE PYOSALPINX.

By James E. Wallace, M.D., F.R.C.S.
Fellow of the Obstetrical Society of London, Formerly Resident Surgeon to the Eden Hospital for Women and Children, Calcutta.

Mrs. E———, a Scotch lady, 29 years of age, of very delicate physique, for some years a resident of Calcutta six years married, gave birth to her first and only child, 10 months after marriage. No further issue. Has suffered with ovarian pain since her child's birth in June 1893. Came under my care about three years ago for menstrual trouble. Was completely relieved and seemed to regain her health in every way. Being one of my regular annual patients, I frequently saw her, and by means of sedatives timely given, her sufferings were minimised, though every now and again they threatened badly. During my absence in England, she got a severe attack of pelvic inflammation and was attended in August last by Surgeon-Lieutenant-Colonel J. Lewtas, under whose care she obtained very satisfactory relief. Early in October, she was laid up again with pelvic cellulitis, supervening upon a severe chill, due to bathing in a very windy bathroom. Her temperature rose to 105 and kept ranging between 102 and 104 for days. There was intense nausea and vomiting and great pelvic pain and tenderness, more marked in the left iliac region. There was the most troublesome restlessness and insomnia, due to pain, which narcotics and hypnotics could not relieve. Fomentations, local sedatives and counter-irritants all failed to afford anything more than very transient comfort in her great suffering. Examined vaginally and bimanually, the uterus was found immovably fixed, in a dense, hard mass of infiltration, filling the left, and extending partially into the right cul-de-sac. This swelling almost reached to the umbilicus above and pressed firmly on the sacral hollow. It was devoid of resiliency or any sign of fluid formation. This state of things continued till the 8th November, when on examination I detected distinct fluctuation in the left cul-de-sac. The patient had now become very low, and as the exhaustion coupled with the high temperature present, pointed to considerable risk, I advised a consultation with some other physician. I therefore asked Surgeon-Lieutenant-Colonel A. Leahy to see the case with me. He confirmed my opinion as to the fluid formation in the left iliac region, and agreed with me in the view that immediate aspiration should be resorted to. I accordingly called in Dr. J. G. Anderson, who chloroformed the patient, and I aspirated the left cul-de-sac, drawing off nearly five ounces of thick, grey colored pus. This was followed by immediate relief and comfort, and sound sleep, together with a fall of temperature to normal. For three days the patient seemed doing most satisfactorily, but on the fourth day after the operation, pain and tenderness returned, together with fever which rose again to 104, attended with the same restlessness and insomnia.

On the 14th October the patient was very much worse; the abdomen was greatly distended and tympanitic, and acutely tender to the touch; the pulse was small and thready and [illegible]; the body was bathed in cold perspiration; and collapse seemed imminent. Vaginal examination proved a re-accumulation of pus in the left side of the pelvis, while in the right cul-de-sac there was a similar fluctuant tumefaction. I called in Dr. Leahy, as I felt convinced that general pelvic suppuration with peritonitis of a like character had set in, and the saving of life could only be effected by abdominal section and rapid washing out of the peritoneal cavity. Dr. Leahy concurred in this opinion, and I resolved to let the patient have the best and only chance of recovery. Her critical condition was explained to her and her husband, and the risks of the operation were also clearly set forth to them. They both readily decided for the operation. The room was an upper flat, airy apartment, surrounded on every side by other houses, and in the most densely populated portion of the English quarter of the city. The room having been thoroughly swept, the walls well dusted, all hangings removed, and the floor washed with a strong solution of carbolic acid, nothing but the operating table, the nurse's bed, a couple of chairs and side tables were placed in it, every other item of furniture being turned out. As helps at the operation I had Dr. Ayatulla, M.B. Edin., Mrs. E. W Madge, L.M.S, and Nurse Robson.

As it was decided to operate at 2 P.M., no food was given to the patient from 10 A.M. At noon an enema was administered and the patient's bowels were relieved, her bladder was also emptied and the hair shaved from the pubis, while the abdomen and thighs and back were thoroughly washed, and a sterilised towel soaked in hot carbolic acid solution was laid over the abdomen and the vulva, and tucked under the nates. The preparations for the operation were simple and were as follows:—About 40 gallons of pure boiled water, cooled down to 100°F; a dozen new hand towels, two new flannel binders, 4 yards of gauze, some cotton wool, a dozen sponges, a two-quart irrigator fitted with a new rubber tube, stop-cock and pipe; a bucket, a glass tray for instruments, and two pus basins. The instruments for use were a scalpel, a dissecting forceps; a pair of dressing scissors, a director, six Spencer Wells' forceps, two metal retractors, six curved surgical needles and a needle-holder, besides silk, silver and horse hair sutures. *Everything* used in the operation was sterilised, *i.e.*, put into boiling water for twenty minutes, except rubber tubes, which were irrigated and carbolised.

At 2 P.M. the patient was placed under chloroform by Dr. Ayatulla, the abdomen and other parts were carefully bathed and scrubbed clean, and the two assistants (Mrs. Dr. Madge and Nurse Robson) and myself, having first of all undergone the most careful cleansing of our hands and nails and arms, (each one's nails were cut short) by means of repeated washing with soap and boiled water, and scrubbing with nail brushes, the abdomen in the median line, was laid open carefully down to the peritoneum, by an incision 4 inches long. All bleeding points were secured and the peritoneum nicked up and slit over a director. The peritoneum was found thickened and inflamed and covered with oaky deposits of lymph which had caused firm adhesions between this membrane and the intestines. By gentle manipulations these were freed, and then the true state of things in the pelvis was revealed. The pelvic cavity was filled with an indescribable mass of

[illegible] with organs which [illegible] were completely [illegible] by inflammation and [illegible] changes. Most [illegible] and carefully, however, the [illegible] were [illegible] and then the ovaries were reached and it was seen that the tubes were enormously distended with pus. They were both freely incised and about eight ounces of pus came away. This was removed from the pelvic cavity by means of soaking with sponges. It was now found that the membrane of the tubes looked very sloughy, almost gangrenous, so I snipped off all the unhealthy looking shreds and finding the ovaries healthy, I left them untouched. I now allowed a stream of sterilised water to flow into the abdomen and thoroughly wash out its entire cavity. Having assured myself that there were no bleeding points (the few that showed themselves were stopped easily by a few moment's pressure with Wells' forceps), and that the pelvis was thoroughly clean, I placed a large rubber drainage tube into the pelvic cavity and fixed its outer end to the lower angle of the abdominal wound. This was removed after 48 hours. I now stitched the edges of the incision together, using three consecutive layers of stitches, the first of silk for the peritoneum, the next of silk for the abdominal muscles, and the third of silver wire for the abdominal wall (skin and fat). Superficial horsehair stitches were used to accurately co adapt the edges of the cut skin. The dressings consisted of sterilised gauze and sterilised cotton kept *en situ* by a sterilised towel used as a binder. This dressing was not changed for two days. The patient bore chloroform well and also the early part of the operation, but by the time she was dressed, the pulse had run down alarmingly and she was in a state of collapse. An enema of brandy and egg yolk and milk (the yolk of one egg, a dessert spoonful of brandy and two ounces of milk) was given per rectum and repeated every two hours Hot bottles were placed around the trunk and extremities. She was allowed to suck ice, but nothing else was given her by the mouth for 48 hours. After the first rectal injection the patient rallied and continued to improve. Beyond a little burning pain in the wound, the operation was followed by a complete subsidence of the fatally threatening peritonitis and absolute relief of all pain, a complete lowering of febrile temperature and the most refreshing sleep Nothing could have been more gratifying than her condition for the first 48 hours after the laparotomy. Within 8 hours of the operation, the patient voided urine, and within 20 hours the bowels moved naturally. On the second day after the operation, after the removal of the dressings, the patient began to suffer with a teasing sense of twitchings in the wound, but this was due to flatulence, as it was relieved by a dose of oil of turpentine This was accompanied by some degree of restlessness and sleeplessness, which were combatted by Battley's sedative.

The diet after the first 48 hours (when the rectal feeding ceased) was soup, sago, milk, water and grapes, and this was continued till the 8th day after the operation when light solid food was allowed. The outer stitches were removed on the 8th day, and the wound was found healed by first intention, save in a spot over one of the deeper sutures. From this place a little pus oozed for a few days, and then I closed the gap with a horsehair stitch and it healed at once. There is nothing further of special interest to note, save that the subsequent convalescence of the patient was unmarked by a single bad symptom. It is of importance to remark, from a clinical, as a well as a physiological and anatomical point of view, that the patient had a free and painless menstruation 34 days after the operation. It may be interesting to mention that on the 14th day after the operation, she was well enough to sit up, that she left her bed on the 20th day and was going about in her carriage on the 30th day, though she underwent so severe a surgical operation for a serious and critical malady which threatened to destroy her life.

This case is further worthy of record among the few successful cases of its kind that have been performed in India.

The Indian Medical Record.

1st January 1895.

AGUE OR INTERMITTENT FEVER. ARE THE PHYSIOLOGISTS OR THE PLASMODISTS RIGHT?

We have received a very interesting and suggestive pamphlet with the above title, by Brigade-Surgeon Lieutenant-Colonel M. D. O'Connell, M.D.,* Officiating P. M. O, Rawal Pindi District, in which the author advances the theory that the phenomena observed in ague are due to an increase of water in the blood, and that this change is entirely dependent upon climatic causes.—"Meteorological environment."

He casts doubts upon the parasitic nature of Laveran's bodies, and we must confess that these bodies, their various forms, and the changes they undergo, are somewhat disappointing, and he further shows that, according to the opinions of physiologists, changes in the blood can be brought about by other means (excess of water and heat) which cause the corpuscles to assume appearances similar to the appearances ascribed to Laveran's parasite by all observers.

He compares the opinions of physiologists and "plasmodists" as follows:—

Physiologists tell us	Plasmodists tell us.
1. If *water* be added to normal blood, the red corpuscles lose their discoid form, become spherical, swollen, and *dropsical*, the hæmoglobin is washed out of them, and ultimately they disintegrate and disappear.	1. The red corpuscles attacked by the malarial parasite are usually the larger ones. They lose their disc-like shape and become spherical, swollen and *dropsical*; they lose their colour and ultimately disappear.
2 If blood be *heated*, vacuoles are produced in the red corpuscles which appear as little, clear, colorless shining spots that assume spherical, annular or other forms. They change their form. They increase in size till they occupy half, two-thirds or the whole of a corpuscle They exhibit amœboid movements form contractions in the surrounding hæmoglobin, and they throw out little fine-headed prolongations which pass to and fro. There may be one or more vacuoles in each corpuscle.	2. Malarial parasites appear in the first instance on or in the red corpuscles as little clear colorless shining spots of various forms, spherical, annular or other They change their form. They increase in size until they occupy most or the whole of the corpuscle. They exhibit amœboid movement, and throw out flagella There may be one or more parasites in each corpuscle.
3. If water be added to normal blood *and* the specimen heated a few degrees above normal, the white blood corpuscles which may or may not contain pigment exhibit active amœboid movements, and Brownian movements of the contained pigment.	3 The larger spherical pigmented parasites exhibit active amœboid movement, and their contained pigment exhibits active swimming movement.
4. The result of increase of water in the blood and exposure to increase of temperature, is destruction of red corpuscles, and production of pigment, free and enclosed in spherical and various shaped bodies.	4. The result of invasion of the red corpuscles by the parasites is wholesale destruction of the corpuscles and increase of pigment in the blood, free and enclosed in spheres, crescents, etc.

* *Note.*—The pamphlet is published by Messrs. Thacker, Spink & Co., Calcutta.

"These phenomena are certainly sufficiently alike to arrest the most casual attention.

To account for the melanæmia, he refers to Professor Hunter's Lectures on blood destruction (*Lancet*, 26th November 1892). According to him the causes of hæmolysis, or blood destruction, are of two kinds: direct and indirect; the first consists of agents injected with the blood, such as water; the second acts from within through the splenic cells.

Hunter describes the appearance in the blood, during the progress of hæmolysis, produced by the injection of water; of the following:—

"1st *Colorless spherules.*—Albuminous and highly refractile of varying size.

"2nd *Colored spherules.*—A red corpuscle becomes constricted at some portion dividing into two parts connected by a colorless portion. These are best studied by warming blood to 45°C (a temperature not much above portal blood in a paroxysm of ague) when the corpuscle breaks up into a number of colored spherules. This description of the disintegration of a blood corpuscle produced by a temperature of 45°C, plus addition of water, reminds one of the description of sporulation of parasites, said by plasmodists to occur during each paroxysm of ague."

That there is an actual increase of water in the blood in all cases of ague, he brings forward no new experiments or researches to prove, but relies upon Leibermeister's authority.

"Liebermeister," he says, quoting from *Fagge*, Vol. I, p. 48, "seems to have established this, for he declares that the wasting of the body in ague, is sometimes concealed by the excessive amount of *water* contained in the blood and tissues. From this cause the weight of the body may be increased as much as 10 lbs, although there may be only slight œdema of the ankles to indicate an excess of water in the blood and tissues."

But the word ague does not occur in the original; Liebermeister's remark refers to fevers in general, and it should follow according to Dr. O'Connell's theory, that as there is an excess of water in the blood in all fevers, there should also be the bodies described by Laveran, provided the temperature reaches a certain point; and this seems to us a weak point in Dr. O'Connell's contention.

As to the manner in which the "meteorological environment" brings about an increase of temperature and of the water in the blood, he refers to experiments by Lacy and Heiligenthal on the effects on the body of increased temperature and increased humidity of the atmosphere.

"By exposure in a Turkish bath, or hot *dry* air-bath to a temperature of 149°F for 50 minutes, the temperature of the body was only raised to 101·6°F. On the other hand, exposure in a Russian or hot vapour bath of only 118°F for only 25 minutes, raised the body temperature to 104·6°F."

"In the hot, moist atmosphere of the Russian bath, evaporation from the skin and lungs is impeded, if not arrested. The natural cooling function of the skin being thus arrested, the body-temperature must, of course, rise, as it does in the vapour bath."

"But besides impeding evaporation from the skin and lungs, exposure in the hot vapour bath also diminishes excretion of water from the kidneys. It must therefore produce *accumulation of water* in the blood. The two most obvious effects of exposure in a Russian or hot vapour bath are then.

1st—Increase of water in the blood.

2nd—Increase of temperature of the body.

Bearing in mind the above results of exposure in the hot, moist, stagnant atmosphere of a Russian vapour bath, it is evident how exposure to the hot, moist, stagnant atmosphere of malarial climates will as certainly, if not so rapidly, produce the same effects."

And this brings us to the starting point of his argument that the climatic conditions under which ague is most prevalent, are the conditions most resembling a Russian vapour bath.

He says:—"The meteorological environment under which ague becomes most prevalent is a hot, moist, stagnant atmosphere."

The example he takes to illustrate this is Singapore. In this statement and in his illustration we do not think he is very fortunate. Singapore, far from being a malarious place, is rather famous for the opposite character.

In the table given in the pamphlet Dr. O'Connell gives the rates of admissions for Singapore as 409 per 1,000. We do not know where this figure is taken from, or what it refers to, but even if it were correct, it would not at all compare with Mian Meer, the figure for which in 1895 was 1,413 admissions per 1,000.

According to the Army Medical Department Report for 1895, the admission rate amongst European troops in the Straits Settlements, of which Singapore is the healthiest part, was only 46 8 per 1,000, and this was higher than the preceding year—a fact which the P. M. O. accounts for by saying —"The majority of cases occurred in the Northumberland Fusiliers, which had recently arrived from India."

The average admissions per 1,000 from 1866 to 1894 was 114 4.

Singapore is therefore a far less malarious place than Mian Meer, and so also is the whole of the Madras Presidency, but no one will have a doubt where the conditions of excessive heat and moisture are most constant

We do not consider that this point invalidates Dr. O'Connell's main thesis, though it is certainly deserving of his attention

We need not enlarge upon the ingenious manner in which Dr. O'Connell brings his theory to explain not only the different forms of ague, as tertian, quartan and quotidian, but also the causes of susceptibility and immunity, and we can only hope his views will receive more attention than is usually accorded now-a-days to anything that does not emanate from the bacteriological laboratory.

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MEDICAL EDUCATION IN GREAT BRITAIN WITH HINTS TO INDIAN STUDENTS.

As the question of medical education in Great Britain is an important one, having a fascinating interest to many ambitious students and practitioners in India, who harbour the aspirations and the hope that they will some day acquire diplomas from the Home-land, an article based on the latest educational numbers of the *British Medical*

[illegible] will, we can never be at fortune to many of our readers. Before entering upon the study of medicine, the would-be physician should insure, that five years of close assiduous work is required of him, and that the days of examining indifference are over, the more so as the standard of admission to the portals of the profession has been considerably raised during the past few years. After deciding as to the medical school he is to study at, the first thing to do is to pass the preliminary examination, as no school course counts as part of the "annus medicus" until this has been accomplished. The possession of a degree in arts from any British or Colonial University or some of the higher British schools having certificates, exempt from this examination. It is essential that no candidate for medical study should attempt to leave India unarmed with this passport to admission to the British medical course, as failure to pass the preliminary examination in Britain would entail useless and expensive labor at mathematics and English literature and foreign languages. Allowing that an Indian candidate has completed his full five years' course of the medical curriculum, he is eligible for examination by any of the British Corporations. In the case of British or Irish Universities, a brief residence of from six to twelve months is demanded before a degree can be competed for. Supposing that a candidate purposes putting in a full course at a British school, then comes the question as to the choice of the school. There is scarcely any room for choice with regard to the London medical schools. They are all well equipped and well officered, but St. Bartholomew's and Guy's are reckoned as being somewhat better than the others. In Scotland we have Edinburgh, Aberdeen, Glasgow, St. Andrews and Dundee. Edinburgh stands to the fore "in the land o'Cakes and brither Scots." The Royal Infirmary here contains about 800 beds, and is at present being extended. It is in close proximity to the University, the classes of which are so arranged as to suit the clinical work in the hospital. The opportunities for both observation and practical work in the Royal Infirmary are many, *e g*, the student makes the clinical report of the case allotted to him and reports daily to the Resident in charge, any serious change of condition. Again he anæsthetises his own patient if operation be necessary, and under chloroform he is permitted to perform the gynecological examination. Of the professors of the Edinburgh University, we need not write, as their fame is world wide, the mere mention of their names will suffice.

Professor Simpson	...	... Midwifery.
„ Fraser	...	... Materia Medica.
„ Sir T. Grainger Stewart	...	Medicine.
„ Chiene,	...	... Surgery.
„ Annandale	...	... Clinical Surgery.
„ Sir Douglas McLaghan,		Medical Jurisprudence
„ Rutherford,	...	... Physiology.
„ Greenfield,	...	... Pathology.

Again, the city itself offers many attractions. Besides being the capital, it is one of the largest and healthiest of our Scottish cities. One of the great advantages the Edinburgh student has is the extra-mural teaching, which stimulates healthy competition; so that if the style of lecturing of any of the professors is obnoxious to him, he can take one of the extra-mural schools. Of course this can only be done to a limited extent: three subjects in all being the number allowed. So far as we know, the extra-mural teaching is only carried on at Edinburgh. As to the cost of a medical education, this varies greatly with the student himself. The class fees, of course, are fixed—£4-4 for each theoretical and £3-3 for each practical class. This would indicate about £120 during the 5 years for class fees alone. To this must be added the cost of the four professional examinations,—a sum of about £22—and again books and instruments have to be borne in mind, which requires a sum of at least £40. So that, roughly speaking, a sum of £200 is almost necessary for the educational part.

The cost of living is entirely in the hands of the student. Rooms can be had from 6s. a week upwards to almost any price. Approximately the weekly bill in Edinburgh may vary from 13 to 21s.

Now concerning the subject of text-books in general use.

Anatomy.—On systematic anatomy the standard text-books are Quain and Gray. Both are well up to date; the former is the more comprehensive of the two. Smaller works, but which suit students equally well, are Turner, Owen, MacAlister, Mackay and Cleland, all of which treat of systematic anatomy.

The favorite text-books among dissectors are Ellis, Heath, and Cunningham. For the study of the dry bones—perhaps Holden is as good as any,

Surgical Anatomy.—That of Fred Treves is the most popular.

Physiology.—Foster, 4 parts, is the best English text-book of the subject. *Landois and Sterling* is more for reference than for student work. *Kirke.*—Compact summary of the whole subject of physiology.

Histology and Embryology.—So far as the student is concerned, these subjects are treated fully in his physiological and anatomical text-books.

Chemistry.—Roscoe and Thorpe are very good on Inorganic and Remsen or Key holds for Organic.

Physics.—Balfour Stewart or Alfred Daniel, both of which are excellent companions to lecture notes.

Biology.—Prantyl and Vino on Botany; Arthur Thomson on Natural History; Ewarts' dissection of the frog, are all excellent text-books.

Materia Medica and Therapeutics—Lauder Brunton, (22/6), more adapted for senior students. Garrod (12/6); Hale White (7/6); Mitchell Bruce, excellent for students.

Medicine.—Fagge (40/), for depth and thoroughness it is unequalled. *Quain's Dictionary* also an admirable work.

Smaller works but more suitable for student's purposes are those of Osler (24/); Bristowe (21/); Taylor (15/); Roberts and Burney Yeo.

Clinical Medicine:—Judson Berry (21/); Finlayson (8/6); Gibson and Russell (10/6); Jakoch (25/), all excellent and reliable works.

Surgery.—The standard English text-books on the science and art of surgery are those of Erichsen and Treves. Smaller works are those of Walsham, Heath, Mansell Moullin and Caird and Cathcart; the latter being an excellent book for emergency cases.

Operative Surgery.—Treves, Bell and Jacobson are excellent guides

Midwifery.—W. S. Playfair is, we think, the most widely read on this subject; other reliable works are those of Galabin, Lusk and Herman.

Haultain issues a small compend, handy for pocket use.

Gynecology.—Hart and Barbour, a favorite work among students, thorough and comprehensive in all detail.

Lawson Tait and Bland Sutton on diseases of ovaries.

Diseases of Children.—Ashby and Wright (25/); deals with both surgical and medical diseases, contains all one requires to know. Smaller works are those of Carmichael Owen, and best of all Smith.

Pathology.—The principal works on the subject are Coates, Payne, Hamilton, Ziegler and Sims Woodhead.

Diseases of Eye.—Swanzy, George Berry, both suitable for students.

Forensic Medicine.—Taylor (14/); Guy (16/); authoritative books.

Public Health.—All that is necessary for this subject, so far as medicine is concerned, is a course of 30 lectures, and the general text-book used by students is that of Lewis Parkes. If a degree in Public Health be desired, then special courses including analysis of food, air and water must be taken out.

Bacteriology.—The elements are given in the ordinary pathology class, but special courses can be had in this subject, also the principal works are Sims Woodhead, Schenk, Salomonsen, Vaughan, and Kanthack.

Psychology.—The more important works are Clouston, Savage Sully, a perusal of which will repay the student. If one intends taking a degree in mental science, then a special course is necessary

We think we have mentioned the outstanding features of our profession. The study, though hard, will more than repay one, and the knowledge he obtains of the working and mechanism of the human frame and of his ability thereby to treat and cure the ailments of his suffering fellow-men, is well worth all the time and money he can devote to its acquirement.

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THE FOURTH ANNUAL GENERAL MEETING OF THE INDIAN MEDICAL ASSOCIATION.

In accordance with the notification duly given in the *Indian Medical Record* of the 16th December, the Fourth Annual General Meeting of the Indian Medical Association was held at the residence of Dr. WALLACE, the Secretary, at 50, Park Street, Calcutta, on Monday, the 27th December at 6 P.M. There was a fairly large attendance of members. Telegrams, congratulating the Association and wishing the Annual Meeting great success, were received from H. H. Sir BHAGVAT SINHJEE, G.C.I.E., M.D., F.R.C.P., Thakore Saheb of Gondal, Vice-President of the Association, from Dr. A. MITRA, of Kashmir, Representative in Council for the Independent States of India, from Professor CALER, Representative in Council for the Panjab, from Dr. JOHN MORTON, Representative in Council for the N.-W. P and Oudh, and from Dr. C. NAYLOR, Representative in Council for Madras; other telegrams came in later. The President, Dr. LAL MADHAB MUKERJI, Rai Bahadur, F.C.U., being unavoidably detained, Dr. E. W. CHAMBERS, Vice-President, was voted to the chair, and with a few words of greeting to his audience, opened the proceedings of the evening by calling upon the Secretary to read the Report of the year.

THIRD ANNUAL REPORT OF THE INDIAN MEDICAL ASSOCIATION.

The Secretary has the honor to submit the following Report of the affairs of the Indian Medical Association for the year 1897:—

1. *Membership*—

The members may be classified as follows, showing the growth of our body for each year:—

	For 1894.	1895.	1896	1897.
Army Surgeons ...	2	44	51	55
Independent Physicians ...	71	105	123	157
Civil Surgeons ...	72	94	102	111
Civil Assistant Surgeons ...	79	95	122	135
Military Assistant Surgeons	173	194	260	316
Hospital Assistants ...	49	85	87	132
Total ...	452.	617.	745.	906

There have been no withdrawals from our Society, but two deaths have occurred among the members of the Association during the year.

2. *The Council and its Meetings.*

The Council has held four Meetings during 1897, and all were well attended.

One member of Council (Dr. MONEY LALL DUTT), died during the year, and his place has been filled by the election of Dr. RAKHAL DAS GHOSE.

Three additions have been made to the Council under the new regulation concerning the direct representation of the local services. Dr. HARI DATT PANT, being appointed to represent the Civil Assistant Surgeons' Service, Surgeon-Major JAMES FORSYTH to represent the Military Assistant Surgeons' Service, and Mr. M. I PHILIP, S.H.A., to represent the Hospital Assistants' Service. Dr. ARTHUR FOY, Member of Council for Bombay, having retired from the country owing to ill-health, and Dr McCABE DALLAS, Member of Council for Assam, having removed to Bombay, he was appointed Member of Council for Bombay, while Dr. WILLIAM BROWN was elected to fill the post of Member of Council for Assam. Dr. N. N. PARAKH of Rangoon, was elected to fill the place of the late Surgeon-Major GODBER as Member of Council for Burmah.

The Secretary takes this opportunity of referring to the great loss which the Council has suffered by the lamented death of Dr. Dutt. He further acknowledges with much pleasure and thankfulness, the ready and very cordial assistance he has received from our worthy President and every Member of Council in all his labors. Our colleagues have given up their scanty leisure cheerfully at the call of duty, and their work has been of the greatest value in determining upon the questions that have arisen for deliberation. The Secretary was absent in England during six months of the current year, and his duties were ably carried on by Surgeon-Major HODGKINS.

3. *The work of the Association:*—

(*a*) The chief aim of our Society has been directed towards uniting and cementing the bonds of union among the scattered members of our profession throughout this land. It has been felt, up to the present time, that the *raison d'etre* of the Association, the necessity of its existence, is foreshadowed in the great task of upbuilding, developing and advancing all that pertains to the interests and prospects of locally educated

and other domiciled independent practitioners, both Indian and European, of every grade, whether in the service of Government or out of it. It has not been called upon to do anything that concerns the higher medical services of this country, and hitherto its field of labor has been entirely confined to safe-guarding the interests of independent medical practitioners and the local medical services. The Association has not pretended to do any scientific work, though, when well established with funds, it will endeavor to aid the advance of medical science in some tangible form; this being one of its objects. At present its attention is absorbed with such questions as affect the social and material advantage of its members, and to this end the society has directed its best efforts. That the labors of the Association have been appreciated and approved of by its *clientele*, is apparent from the steady growth of its membership, and by the fact that no form of dissension has arisen from its wise and carefully conducted policy, such as would be indicated by the withdrawal of members.

(*b*) *The Formation of Branches of the Association.*—

No new branches have been formed during the year. The only one that exists is the Straits Settlements Branch, and this body is doing excellent work.

(*c*) *Medical Reform in India.*

Owing to the disparaging delay in responding to the appeals to Government by this Association, the Council deemed it imperative to approach the various Provincial Governments with a renewed attempt to obtain redress for the grievances of Civil and Military Assistant Surgeons, and Civil and Military Hospital Assistants. It is hoped that the recent action of the Council in addressing the Imperial and Provincial Governments on this subject, will result in early and favorable action being taken by the State. The Council found it necessary to approach the N.-W P. and Oudh Government in connection with the important question of the interference with the rights and privileges of the independent medical practitioners in Mussoorie, by the Civil Surgeon of that Station. A strong case was made out by the Government itself, for insistence upon State-paid Surgeons being confined wholly to their legitimate official duties, and it is anticipated that the Government will see its way to prohibiting the highly paid Civil Surgeon of Mussoorie, from competing in private practice with the independent surgeons in that station.

(*d*). *Representations to Government by the Council.*—

The Council has approached the Supreme and Provincial Governments on the following matters during the current year:—

1. Calcutta Sanitation and Plague Segregation.
2. The granting of Fellowships in the Calcutta University to our President and Vice-Presidents.
3. The grievances and disabilities of the local Medical Services.
4. The question of Government Surgeons and Private Practice.
5. The appointment of a representative of the Association on the Bengal Plague Commission.

(*e*). *Medical Registration for India.*—

In view of the inaction of the Government with regard to the subject of a Medical Registration Act in India, the Council has approached the General Medical Council of Great Britain, to lend its powerful aid to the inauguration of a system of compulsory registration on all practitioners holding British qualifications and Indian University degrees. It is felt that the acceptance of this measure will prove to be the first step towards a perfect system of general medical registration in this country. It will serve also to emphasise the anomalies of medical education in India, and will undoubtedly in the near future, bring about not only a better and more perfectly equalised standard of education and examination in all the State Medical Schools, which will tend to the betterment of the social and material status of the local profession, but it will put an end to fraudulent practices by men who dare to boast of spurious medical qualifications, and even go the length of affixing false titles to their names, when they have none at all.

(*f*). *The Indian Medical Association Provident Fund.*—

This important scheme though growing slowly, has had a somewhat discouraging growth during the current year. It was promulgated in February, and up to the present time, only 250 members have enrolled their names on its list. The amalgamation of the Medical Warrant Officers Provident Fund and our own Fund, has been accomplished by popular vote, and it is hoped that ere long, the full complement of membership will be attained and our own Fund satisfactorily launched on a firm basis.

(*g*.) *Change of Rule.*—

It has been found difficult at times, during the past three years, to carry on the work of the Council, owing to inability to form a quorum under Rule 18, by which the quorum is fixed at six. It is felt that the number should be changed to *four*, and therefore this matter is now placed before the Annual General Meeting for alteration.

(*h*.) *Election of Officers and Council.*—

As under Rule 11, the President, Vice-Presidents, Treasurer and Secretary, having now filled their offices for three years, are compelled to retire, and as all the Members of Council, are by the same rule, compelled to do the same, they shall at the present Annual Meeting retire and seek re-election.

(*i*.) *Honors to our Officers.*—

It is a very pleasing duty to refer briefly to well merited honors that have fallen on the leaders of our Association. Our excellent and revered President, Dr. LAL MADHAB MOOKERJI, has been greatly honored by His Majesty, the King of Nepal, who received him in open durbar, as a mark of respect and esteem for his valuable work as an Ophthalmic Surgeon. In successfully operating for cataract, on a patient in Nepal, aged 106 years' Dr. MUKERJI added another score to his already renowned skill as an operator. His Excellency the Commander-in-Chief of Nepal also made very valuable gifts to Dr. MUKERJI for his able and successful professional attendance on himself. Dr. MUKERJI was the recipient of the very handsome presents and also of a very elegant Gold Medal on this occasion, and the Maharaj, the Prime Minister who made the presentation expressed the high appreciation of our President's skill and reputation as an Ophthalmic Surgeon. I have also to refer to our worthy and esteemed Vice-President, Sir BHAGVAT SINHJEE, M.D., F.R.C.P., &c., who received during his recent visit to London, where he was specially invited

to attend the Levee and Drawing-room of our Queen Empress, the most valuable distinction of a Grand Commander-ship of the Royal Order of the Indian Empire. We all feel like congratulating our President and our Vice-Presidents on these tokens of esteem that have come to them, for our Association is honored by every distinction that is conferred upon or won by our leaders, and by every member of our Society.

(d.) *Finance.*—

INDIAN MEDICAL ASSOCIATION BALANCE SHEET.
Abstract of Receipts and Disbursements for the year 1897.

Receipts.		Amount.			Disbursements.		Amount.		
		Rs.	A.	P.			Rs.	A.	P.
Balance 28th Dec. 1896	...	817	9	9	Parchment for and Printing 100 Certificates	...	66	4	0
					Inscribing names on 94 Certificates	...	23	8	0
Subscriptions to 26th Dec. 1897	...	1,344	12	0	Binding and Postage on 2,000 Annual Reports (1896)	...	46	14	0
					Printing 2,000 Annual Reports (1896)	...	292	0	0
					Printing 5,000 Provident Fund Rules	...	360	0	0
					Minor printing, Post Cards, and Petty Expenses	...	23	11	6
						...	825	5	6
					Balance in hand	...	1,339	0	3
Total Rs.	...	2,162	5	9	Total Rs.	...	2,162	5	9

PROVIDENT FUND.

145, members have paid Rs. 570 as "Call money."

H. C. HOSKINS,
Hony. Treasurer.

CALCUTTA,
27th December 1897.

In the absence of Dr. MUKERJEE, Dr. CHAMBERS called upon Dr. R. D. GHOSE to read

THE PRESIDENT'S SPEECH.

LADIES and GENTLEMEN, I am sure, we are all gratified with our Secretary's excellent Report for 1897. It speaks of energy and zeal and faithfulness, and of success all along the line. If growth is a sign of progress, then the Indian Medical Association can prove, by its increasing membership, to be progressive both in popularity and usefulness and in public influence. Unquestionably our Society has won the confidence of the local profession in all its grades, and a review of its work, as revealed in the Report just read to us, exhibits a good measure of concern in the welfare of the local services and of the local profession, as well as a keen perception of the public duties in political matters, that may well call forth the encomiums of all right minded men and women in India. Thanks to our Council, the year that is now closing, was beset of a round of zeal and labor on behalf of our professional brethren. After three years of hard work, we can honestly claim, that our Council and our Association have abundantly justified their existence, and that we have nothing to blame ourselves for in all that concerns our responsibilities as the representatives of the local medical profession.

We all read the *Indian Medical Record*, and therefore we all know the sphere and scope of the labors of our Council.

I wish now however, to urge once again the claims which our Council holds upon the grateful appreciation of the local profession, and to emphasise the duty that ought to be clear to every medical man and woman in India, outside the higher or imported medical services, to join our Association. This is a step which our brethren should no longer hesitate to take. We annually publish the lists of our membership, we report every item of business we transact, so that our doings and our position are all clear and above board. If our efforts and endeavors on behalf of the local medical services, and the profession generally, have not been happily attended with well merited success, blame cannot be ascribed to us, but to the apparent supineness and indifference of the medical authorities in India. I have no hesitation in saying that the neglect meted out by the State to the grievances and disabilities of the local medical profession, is a very serious blot upon the medical administration of this country. Bad as things may be with the A. M. S. in England, nothing can compare with the lamentable condition of the so-called *Subordinate* or local medical services. The state of dissatisfaction and excitement throughout these services, is akin to a hopeless want of confidence in the Government, in regard to its policy towards the local services, and I feel it my solemn duty to inform the authorities that this strain is likely to be followed by wholesale retirements and resignations, a calamity that would be most disastrous both to the Government and the public, were our fears to be practically realised. The Council has made a very clear and decisive representation to the Imperial and Local Governments on this subject, and it now remains for those who are responsible for this flaw in the medical administration of India, to set their house in order ere it is too late. I feel it my further duty, however, to press upon the consideration of the members of the local medical services, the duty of continuing steadfast to their posts, and loyally fulfilling their trust during these trying times of plague, and war and famine. I cannot, however, refrain from an expression of very earnest and loyal sympathy with the Government in the face of so many calamitous visitations and their attendant administrative burdens, although I feel that nothing can excuse or nullify the plain and honest duty of the State towards its long-suffering and truly loyal servants, the Civil and Military Assistant Surgeons, and the Civil and Military Hospital Assistants.

The old bugbear of private medical practice in India and the interference by State paid doctors with the same, has formed the subject of a representation to the N.-W. P. and Oudh Government. The case against military sur-

[illegible] public duties, [illegible] duties, [illegible] private enterprise, could not have been [illegible] made.

It is very gratifying to us, as an Association, to find that the representations of our Council during the current year, on the subject of Calcutta Sanitation and precautionary measures for plague prevention and segregation, have merited the careful attention of the Bengal Government, and that in their resolutions concerning these matters, the State has referred to the valuable suggestions we set forth in our letter to Government. It is hoped that the Government will not withhold its practical appreciation of our efforts in the public weal, and that the distinction sought at its hands for our President and Vice-Presidents will be readily allowed.

With regard to the subject of Plague Segregation, I find that the action taken by the Bengal Government is not approved of by the Hindu and Mahomedan sections of Her Majesty's subjects, and I wish to publicly invite attention to the excellent suggestions of our Council contained in its letter to Government in March last, which I have abundant reason to know, are highly approved by the leaders of Indian Society in Calcutta, and which are capable of being carried into effect with the best possible results. The Council has under consideration further suggestions in connection with these matters which will be placed before the Government in due course.

I wish most emphatically to take this opportunity to refer to the most praiseworthy and zealous labors of our worthy Secretary during his stay in England. On the eve of his departure, the idea of approaching the authorities of the India Office and the War Office of London with a view to improving the position of the local medical services, and obtaining some promise for the larger utilisation of local medical talent, as well as paving the way for a system of Medical Registration for India, was duly considered by us, and Dr. WALLACE, acting upon these thoughts, has not only loyally fulfilled a great commission, but he has proved by his personal tact and ability, that he could win the attention and sympathy and favor of the highest authorities in England. I have seen from certain documents in Dr. WALLACE's possession, which he is not as yet permitted to make public, that very important and valuable changes are likely to occur in the near future for the material advantage of the medical profession of India. We owe a debt of gratitude to our indefatigable and able Secretary not only whose official work but whose professional success in gaining the Fellowship of the Royal College of Surgeons demands our congratulations. (Applause.)

It now remains for me to announce, that under the provisions of Rule 11 of the Registered Memorandum of Rules and Regulations of the Indian Medical Association, the President, Vice-Presidents, Secretary and Treasurer, having filled their offices for three years, must all retire from such positions this day, and with them the whole of the Members of Council, as is done annually. The Secretary informs me that all these gentlemen are willing to be re-elected, and it becomes your duty to-day to make [illegible] of officers for [illegible] year.

It is my duty also to remind you of the Secretary's request, at [illegible] meeting with a quorum of our Council, that I ought to recommend this change in the interests of efficient work, and also having due regard to the many responsibilities with which our Committees are freighted in relation to their own private avocations.

I now conclude my address with a very hearty wish that each and all of us will enjoy A HAPPY NEW YEAR," and that the coming year will be one of great prosperity and success, not only to our Association, but to every one of its many members.

The President's speech was received with loud acclamation; whereupon Dr. CHAMBERS expressed his regret and the general regret of the meeting, at Dr. MUKERJEE's unavoidable absence, remarking at the same time that he knew of few men in his Districts who were so faithful and punctual at their engagements as Dr. MUKERJEE. He referred to the number of those present at the meeting, and said that the busy and trying nature of the work of many of the practitioners, who were members of our Society, kept them from attending, but he wished to invite attention to the telegrams read to the meeting, and which came from gentlemen from all parts of India, who not only held high and honored positions in the profession, but were the elected representatives of large sections of our profession in the various provinces of the country. Dr. CHAMBERS said that the work of the Council, as shown by the Secretary's Report, was varied and important. He desired specially to point to that phase of it which dealt with the suggestion of a Medical Registration Act for India. He felt that the introduction of such an Act was very urgently required, on public as well as medical grounds, and he hoped to see every section of medical practitioners in India obtain due and proper justice from the carefully devised provisions of a Medical Registration Act for India. As Coroner of Calcutta, he had brought the whole subject of medical practice in India under the notice of Government officially, but up to the present time nothing had been done by the State. He desired also to add his kindliest expressions of esteem to the memory of his friend and colleague, Dr. MONEY LAL DUTT, whose death the Council so much deplored. Dr. DUTT was an ornament not only to our profession, but to the whole Bengali community.

He desired also to add his vote of hearty appreciation for the excellent and remarkably successful work which had been so courageously undertaken and so loyally fulfilled in England by their Secretary, Dr. WALLACE, whose labors were for the good of the medical profession at large (loud applause and three cheers for Dr. WALLACE)

Dr. CHAMBERS concluded his remarks by an exhortation to unity and good feeling and the certain success that awaited the toil and zeal of the Indian Medical Association.

The following Resolutions were then put to the meeting and carried unanimously :—

1. That this meeting hereby re-elects the present Officers and Members of Council to a continuance of their offices, in accordance with the Rules and Regulations of the Indian Medical Association.

Proposed by Dr J. G. ARBUTHNOT.
Seconded by Dr. BILLIMORIA.

2. That this meeting approves of the alteration of Rule 11, by which the quorum for a meeting of Members of Council is fixed at six, and that Rule 11 is hereby altered, so that four members shall henceforth form a quorum.

Proposed by Dr. JOGENDRO NATH GHOSE.
Seconded by Dr. R. W. JONES.

A vote of thanks to the chair was

Proposed by Surgeon-Major FORSYTH.
Seconded by Surgeon-Major MCNEILL.

and was carried with acclamation.

CURRENTS AND NEWS.

HYGIENE AS A MATRICULATION SUBJECT IN INDIAN SCHOOLS.

We have received a Pamphlet from the pen of JOHN MURDOCH, LL.D., entitled "*Appeal to the Indian Universities for the Recognition of Hygiene.*" "This Appeal," we are told in a Note, "is in support of a proposal to be laid before the five Indian Universities to make Hygiene a compulsory subject in the Matriculation Examination."

On page 12 of the Pamphlet we read "most of the Indian Universities have two science subjects for the Matriculation Examination, generally Physics and Chemistry. To be effectively taught both require good apparatus with which high schools are, in general, not sufficiently provided The students at that stage have also an insufficient knowledge of English, under the circumstances little more than a confused smattering can generally be acquired. Such subjects should be transferred to the First Arts Examination. Instead of them let Hygiene and Physical Geography, including an outline of Astronomy be substituted."

We cordially agree with Dr. MURDOCH and the authorities quoted by him, that there is plenty of room for reform in our somewhat fossilised educational system, and we are quite as alive as he can possibly be to the practical value of Hygiene; yet we think it wise to hesitate before committing ourselves unreservedly in favor of the suggestion contained in the above sentence.

The amount of Hygiene that can be learnt without a previous knowledge of Physics and Chemistry must be very small, such a limited course may be very well for a school, but is it sufficient for a university Matriculation Examination? It is manifestly absurd to teach a youth that air consists of oxygen, hydrogen and nitrogen, or that a certain amount of CO_2 in the atmosphere is injurious, when he does not know what oxygen, hydrogen, nitrogen and CO_2 are, and how can he be expected to understand the principles of ventilation if BOYLE and MARRIOT'S and GRAHAM'S laws are a terra incognita to him?

Similar objections might be extended to almost every branch of Hygiene, were it necessary.

The objections formulated by Dr. MURDOCH against Physics and Chemistry appears to us equally applicable to Hygiene, and we have the same objection to "ineffective teaching" and a "confused smattering" as he has. Moreover, the difficulty of defective apparatus is one that can be surmounted.

We should be sorry to see Physics and Chemistry done away with, and particularly the former, which is certainly the most interesting to youthful minds.

In the curriculum of the student of medicine, Hygiene occupies an important position, but it comes late in the course after Physics, Chemistry, and Physiology have been mastered; and such, we think, is its natural and proper place.

We do not, however, see why Hygiene of such a limited scope as is possible under the circumstances, should not be added to these sciences for the Matriculation Examination.

We notice that the Matriculation subjects are not the same at all the Universities, and that seems to show that those presumably best qualified to judge, find considerable difficulty in deciding upon what subjects are the best; and this is a point upon which we do not feel it our duty to express an opinion.

We think, however, that it would be a mistake to admit Hygiene to the exclusion of Physics and Chemistry.

ANTISEPTIC PROPERTIES OF BILE.

In this age of scepticism and investigation, many of our most cherished ideas have received their death blow, nothing is held sacred, and now we note that the apparently well established idea that the bile possessed antiseptic properties has received a rude shock, if not its quietus at the hands of Dr. MAYO ROBSON. To this effect he adduces evidence as follows:—

In a case of biliary fistula, when bile was absent from the intestine for fifteen months, no irregular fomentative processes followed.

BLACK has demonstrated that the bile in cases of disease of the gall bladder or bile ducts always contains micro-organisms.

When the flow of bile along the ducts is arrested, micro-organisms often minds the gall bladder. CHARCOT and GOMBANET demonstrated the presence of organisms within it after ligaturing the common duct in dogs This was confirmed be NETLER in 1886, who found that 24 hours after aseptic ligature of the common duct in dogs, organisms, both staphylococcus and bacillus coli communis, could be cultivated from the bile.

Mr. C. B. LOCKWOOD found streptococci and other organisms, but no amœba coli in an empyema of the gall bladder. NETLER found staphylococci and streptococci present in pathological human bile, and MARTIN, GILBERT and GIRODE and BOUCHARD have found the bacillus coli communis in the bile in cases of inflammation of the biliary passages. GILBERT and GIRODE found typhoid bacilli in the pus from a case of empyema of the gall bladder which came on as a sequence of enteric fever. CHIASE investigated systematically a series of 22 cases of typhoid fever. With the exception of 3 cases, one of which was in the infiltratine and two were in the necrotic stage, he obtained typhoid bacilli invariably out of the gall bladder; it is probable that they enter by the bile ducts. There is no doubt that the bacilli multiply in the gall bladder, and it is possible that they may be responsible for post-typhoidal cholesystitis, for gall stones and also for relapses of the disease.

Normal bile is, however, generally sterile, this was proved by NETLER in 1884.—(*Lancet.*)

LEPROSY OVERCOME BY ISOLATION IN THE MIDDLE AGES.

ALBERT S. ASHMEAD, M.D. of New York, writes as follows.—"In the Middle Ages leprosy spread in every country of Europe and continued to spread until strenuous efforts were made to bring the diseased parts out of contact with the healthy community. In this no charitable regard was had to the victims of the scourage; the weal of the same majority alone was considered. It is from this point of view that it behoves us also to judge the conduct of the church. The Order of Lazarus was founded and lazarettos built in great numbers. The work and purpose of the order were to segregate and govern the afflicted and dangerous part of humanity. The thing was necessary, was an unavoidable consequence of the resolve of healthy mankind to remain so, and it was not so much charity as one might believe. The community wanted this work to be done, and who could do it but the church?

"But, according to Dr. EHLERS, Secretary-General of the Berlin Lepra Conference, the church might have been spared these worries and these dangers, for isolation is not necessary, as these Middle Age people believed, who through isolation were fortunate enough finally to overcome the disease.

"It is not certain that the growth of civilization since the Middle Ages has rendered the spread of leprosy impossible. We cheerfully admit that it cannot overwhelm people who

are clean in their habits, well separated in their families, careful of their bedding, living in sufficient remoteness from the inferior animals, etc., as it did our ancestors of the Middle Ages, whose life was so very different. Yet some danger still exists, and the spread of leprosy in various parts of Europe, and in parts which I venture to say are cleaner than the leprosy centres of Norway and Iceland, proves that the disease has not lost, under circumstances, its vital stamina; it seems to stir itself with remarkable vigor, and to be able to take advantage of any elbow room left to it.

"If enforced isolation and a permanent committee of official delegates do not come out of the Congress of Berlin —and Dr. EHLERS does not want them to—that Congress will have been held for nothing, or at least only *ad majorem Ehleri e gloriam*."

RUSSIAN IMPRESSIONS OF THE PLAGUE IN BOMBAY.

SAYS the *Lancet* :—"At a largely attended meeting of the Kief Medical Society, Professor VUISOKOVITCH recently gave an account of his expedition to Bombay to study the outbreak of plague. The Russian Commission, of which he was the head, had made a careful study of the epidemic from the clinical, bacteriological, and other aspects, and the general impression they had gathered was that although plague is a very severe disease, yet it is easier to deal with and control than some other diseases such as diphtheria or cholera. The plague bacillus dies quickly if completely dried up and it cannot live long in water. The disease is spread from man to man directly or by the medium of fomites; it is in fact a purely 'house-disease.' The part played by rats in spreading it is still doubtful. The most successful measures against the spread of the epidemic have been the following: the searching out of cases; their segregation in hospitals; removal of the healthy from an infected house; disinfection of the house and contents, examination of persons arriving at, or departing from, any district; and an eight or ten days' quarantine. Unfortunately these measures met with resistance in an unenlightened community; consequently it is of more importance to endeavour to keep the infection out of a country or district. This is not difficult if proper precautions are taken on the frontier. Professor VUISOKOVITCH stated that neither YERSIN'S nor HAFFKINE'S prophylactic inoculations had proved to be quite satisfactory. In monkeys neither gave more than ten or fourteen days' immunity. The best results followed the injection of a fresh agar cultivation, killed by heating to 60°C. for one hour. YERSIN'S serum had given very encouraging results as a curative agent. Among 150 patients so treated the mortality had, it is true, been 40 per cent., but it would probably have been less could many of the patients have been seen at an earlier stage of the disease."

A RONTGEN SOCIETY.

RONTGEN photography has now a society of its own which was inaugurated under the presidency of Professor SILVANAS THOMPSON, F. R. S., who in his address related the history of the discovery, and gave an account of recent work done in connection with it.

The rays possess electric and chemical properties. When discovered, they appeared to constitute a new kind of light somewhat resembling invisible ultra-violet light waves but differing from them in several respects. They possess a remarkable power of penetration and can neither be reflected nor refracted. They differ from all known kinds of electricity in refusing to be deflected by the magnet.

It is nearly two years since they were discovered, and but little advance has been made in that time. Improvement in the tubes have reduced the time of exposure, special films have been devised by photographic chemists; as long as no glass intervenes; ten dozen skiagrams can be imprinted simultaneously on superimposed films.

It is suggested that by the aid of these rays the blind might in some cases be made to see, but experiments up to date have not been successful, and of course where the optic nerve is destroyed there could be no hope. In certain cases the retina of the normal eye does possess a faint perception for the rays.

A Tesla's induction-coil was exhibited, giving high-frequency oscillatory discharges direct from any ordinary electric supply with small expenditure of energy. When one of Tesla's own tubes is excited with this machine, the emission of Rontgen rays is so intense that standing 50 feet away from it one can still obtain on a luminescent screen the shadow of the bones of one's hand.

THE CASE OF MALONEY *CUM* RICHARD AND THEIR RECENT DOINGS IN CALCUTTA.

AT the recent meeting of the General Medical Council of Great Britain in London, one the minor items of business was the consideration of the case of WILLIAM ROBERT NUTTALL MALONEY, of Roden Street, West Melbourne, in the Colony of Victoria, registered in England 3rd March 1886, as Lic. Soc Apoth. Lond. 1885, who had been summoned to appear before the Council to answer the following charges as formulated by the Council's solicitor :—

The matters charged against Mr. MALONEY relate to public advertisements by him in Calcutta, Melbourne, and Belfast, and also to his conduct in associating himself with a so-called medical electrician. (Richard) and in practising and conducting in public a medical electrical treatment; and it is complained against him that he seeks to attract patients by a system of extensive public advertisements of his name and address and qualifications, and of the said treatment as practised by him, in and by which persons in need of medical aid were invited to consult him professionally and adopt the said treatment, and that the advertisements systematically published by him were of themselves of a character discreditable to a professional man.

Mr. FARRER said that Mr. MALONEY had been summoned, and in reply had sent certain letters of defence. The matter had been brought to the notice of the Council by the Royal College of Surgeons of England, who had removed Mr. MALONEY'S name from their list of Members. He submitted to the Council, specimens of the advertisements as well as a newspaper account of a meeting held in the Ulster Hall, Belfast. In one of his letters Mr. MALONEY suggested that he had been sufficiently punished by being deprived of his place in the Membership of the Royal College of Surgeons of England. As to the electrician (Mr. RICHARD, with many *aliases*) with whom he had been associated for a time, he had fled the country when his antecedents became known. Mr. MALONEY further said, that his qualifications, had been inserted in no advertisement with his knowledge. He explained his non-appearance before the Council with the statement that he was standing for re-election as a member of the Legislative Assembly of the Colony of Victoria.

Mr. BRYANT gave some account of the experiences of the Royal College of Surgeons of England with Mr. MALONEY.

The Council on the clear evidence before it, found the charge proved, and adjudged Mr. MALONEY to have been guilty of infamous conduct in a professional respect, and directed the Registrar to erase his name from the Medical Register.

WIDAL'S TEST FOR TYPHOID FEVER.

GUERARD (*Journal of the American Medical Association*) from an analysis of the results hitherto obtained, makes some interesting observations on WIDAL'S method of diagnosing typhoid fever.

The test, he says, is by no means specific in the strict acceptation of the term; it has certain limitations in its practical

[illegible] which, if not properly appreciated, may lead to false conclusions.

The precautions to be observed refer to (1) the virulence of the typhoid cultures employed; (2) the dilution of the serum; (3) the time limit for the reaction.

The culture should be of a high and known degree of virulence and the bacilli actively motile; the dilution should be in the proportion of at least 1 to 10, with a limit of 15 minutes for the reaction to appear.

It should be remembered that the reaction may be due at times not to a present but to a past case of typhoid so mild that it has been entirely forgotten. The absence of a reaction does not necessarily exclude typhoid fever, as the reaction may be delayed till late in the disease, the test should be applied several times when the results are negative.

The best way to obtain the serum is by a cantharides blister. There can be no doubt that in the hands of the expert bacteriologist the test will give valuable assistance to the physician, although it is sometimes wanting or indecisive.

THE FLAGELLATED FORM OF THE MALARIAL PARASITE.

Dr. W. G. MACCALLUM, of the John Hopkins Hospital, Baltimore, publishes some interesting observations on the above. The theories put forward up to the present time by LAVERAN, DANILEWSKY, MANNABERG, MANSON, SAKHAROFF, and the Italian school have not, he says, obtained general evidence, his own observations were made on crows, which are very generally infected with the halteridium of Labbe.

In fresh blood, only the mature forms undergo any change; they become rounded and extruded from the corpuscle, both in fresh blood and in stained specimens two forms can be distinguished, the protoplasm of one is granular and opaque of the other clear hyaline; the latter alone becomes flagellated.

The granular forms lie quiet and are approached by the flagella which have torn themselves free from the hyaline organisms. One of these plunges his head into the granular organism and wriggles himself inside; a second flagellum cannot enter the same body.

The admitted flagellum is at first active and churns up the contained pigment, soon it becomes quiet, in 15 to 20 minutes a corneal process appears at one side of the organism, the pigment collecting at the opposite side, the process grows and the pigment condenses, fill the organism and assumes a fusiform shape. The spindle-shaped organism moves forward twisting on its long axis and displaying amœboid contortions; it destroys the red corpuscles in its path and the hæmoglobin escapes.

In an intense infection a great destruction of corpuscles occurs; sometimes leucocytes fall victims. Nothing definite can be said of the ultimate fate of these forms. It is suggested that they may be the resistent forms that escape from the body during life.

Phenomena of a somewhat similar nature were observed in human blood.

IS DIABETES CONTAGIOUS?

A CONSIDERABLE number of cases of the simultaneous development of diabetes in husband and wife, has raised the question of the possible contagiousness of this disease. M. BOISUMEAN discusses this subject at length in his Thèse de Paris, 1897. The disease does not, as a rule, appear late in married life.

In one of SCHMITZ's cases it attacked the husband at the end of five years, and the wife a year later; the husband died and the widow married again, and at the end of two years she had given diabetes to her new husband. KÜLTZ mentions cases in which it [illegible] twenty-five, thirty-one, and [illegible] after marriage.

In one of BOISUMEAN's own cases it attacked the wife twenty-nine years after marriage.

The husband is generally attacked first; the length of time between the attack of the one and that of the other varies from three months to sixteen years.

According to PIERRE MARIE there are two theories to account for "Conjugal Diabetes": (1) The similarity of the mode of life, and of diet, and the fact that the two share alike in misfortunes; (2) a true contagion.

The second has received support from DEBOVE, SCHMITZ, TESSIER, CHARRIN, and MARIE.

The following two cases given by BOISUMEAN are suggestive of contagion. A man, who was the son of a diabetic and affected with diabetes, lost his first wife from diabetes; he married again and his second wife got the disease. In the second case, this man's sister, a diabetic, had as her first child a diabetic son, she married a second time, and her second husband became diabetic.

M. BOISUMEAN advances no theory to account for the contagion or its mode of conveyance.

ENGLAND'S POSITION WITH REGARD TO TROPICAL DISEASES.

GENERAL satisfaction is everywhere being expressed as to the step taken by St. Georges' Hospital and St. Mary's Hospital, London, in instituting a course of lecture on tropical diseases, to be delivered by Dr. MANSON; this step has been taken not a moment too soon, and it is a sign that the medical teaching bodies in Great Britain are having their eyes opened, like Great Britian generally, to their duties to the Empire on which the sun never sets.

In the matter of Tropical disease, England has fallen sadly behind the times. The English text-books are probably the worst in the world on the subject; we have nothing in our language which at all approaches the French treatise on diseases of hot climates by KELSCH and KIENER, both French Army Surgeons. DAVIDSON's medley of compilation "Hygiene and Diseases of Hot Climates" is a very second-rate affair compared to it; and, it may be observed, that all the recent work in it of any value is borrowed from the Continent.

There was a time when we had an English School of Tropical Medicine connected with such justly honored names as BUDD, ANNESLEY, MOORHEAD, MACLEAN, etc. these be amongst the ancient, but the moderns where are they?

It is curious to observe how far medicine is behind the allied sciences as regards the climatology and distribution of disease; it is easy enough to obtain the most exact information regarding the physical geography, the geology the meteorology, the fauna, the flora, the ethnography, etc. of almost any part of the world, but the climatology and distribution of disease has not yet been worked out in the same thorough manner.

Our Government does not appear to recognise the immense importance of encouraging medical research, nor have we any wealthy medical bodies which push the question. And it is with a feeling not akin to satisfaction that we see some of the most important bacteriological work in India in the hands of aliens.

DEATH THROUGH FAULTY DISPENSING.

THE death of a Superintending [illegible] at Delhi from an overdose of strychnia due to the carelessness of a dispenser in exceeding the quantity ordered in the prescription, calls attention to the class of men to whom the dispensing of drugs is too frequently confided in this country.

It ought to be illegal to permit anyone to undertake the responsibility, of making up prescriptions without passing some test, the unfairness of this custom its risks, its objectionableness from every point of view, except that of the proprietor's pocket, who pays wages little better than those of a cooley, ought long ago to have raised a storm of resentment to force the legislature to wipe it out. True, throughout Great Britain unqualified persons are permitted to dispense drugs, but they are on a higher scale of civilisation; the responsibility is more apparent to them; they have more to lose and are more certain of losing it, and if they by mistake should poison the poorest of the poor, the Coroner's inquest may be depended upon for bringing the culprit to justice.

It is unfortunately not at all certain that accidents of this kind are very uncommon amongst the poor of this country.

Another case has since occurred at Rawal Pindi, the victim being Mr. FRANCIS, Secretary to the Rawal Pindi District Board.

THE COMPARATIVE INTELLECTUAL CAPACITY OF MEN AND WOMEN.

SIR WILLIAM TURNER, at the meeting of the British Medical Association at Montreal, has been ungallant enough to bring prominently forward, once again the old assertion that because the average brain of man weighs more than that of woman, therefore man possesses a greater amount of brain power than woman. This is a delicate subject, and one that might well be let rest at a time when women are making such gigantic strides in every direction.

The gross methods of tare and trett are not altogether convincing when applied to such intangible things as intellectual attainments.

Man, as a rule, has of course more muscular tissue than woman, therefore he has more muscular power, he is, in fact, a bigger brute and therefore has more brute force: it follows that a larger portion of his brain is taken up in controlling and directing these forces, and there is nothing to show that the residue, which we may assume to be connected with the higher qualities (though the assumption in many cases may seem to be extravagant) is any greater than the corresponding portion in woman

In discussions of this kind, the fair sex will soon be quite able to take care of themselves; at present they have a powerful supporter in Professor DARKSHEVITCH.

CHEMISTRY OF BACTERIA IN THE INTESTINAL CANAL.

THE following are some of the conclusions, drawn by A. L. GILLESPIE, from a series of elaborate experiments upon "The Chemistry of the Intestinal Contents, and the Influence of the Bacteria Present:"

1. The reaction of the contents of the stomach and intestine is *acid throughout*.

2. Two classes of organisms, mutually antagonistic, are present · (*a*) Acid-producing and unable to liquefy gelatin; (*b*) alkali-producing putrefactive bacteria, capable of liquefying gelatin, The ammonia formed by the latter often unites with the acid due to the former, to form ammonium lactate, a salt favorable to the growth of either.

3. Normal or increased acidity of the stomach contents favors the destruction of the less resistant putrefactive bacteria.

A low gastric acidity has the reverse effect, and might thus cause indigestion. On the other hand, the low acidity, by encouraging the growth of the acid-forming bacteria, may ultimately increase the acidity of and lessen the putrefactive decomposition in the lower part of the canal.

Herein lie hints for the treatment of that very troublesome complaint dyspepsia, *Verb*; *Sap*.

STATE-PAID DOCTORS AND THEIR MONOPOLIES IN INDIA.

The important subject of the monopoly by State-paid doctors of private practice in India, must soon engage the serious attention of the Supreme Government, as it is impossible for the higher authorities to view with unconcern, the irresistable claim for protection which the private practitioner has plainly proved is his just due from the State in the matter of his legal rights to earn his livelihood, and in the clearer light of the other side of the shield, namely, that State-paid servants should only perform State duties, a principle which is recognised and acted on in every other department of the State except the Medical Department. This great question is intimately associated with another important anomaly in medical matters, namely, the monopoly of State civil work by military surgeons. The inconsistency of the position, for the purposes of argument and justification, which has been hitherto assumed by the Government for officering our large metropolitan public hospitals by military surgeons, namely, that these officers were intended as a Military or "War Reserve," turns out to be almost as chimerical as it is false, for who has not observed the fact, that while there has been a great outcry in India about the pressing and urgent need for the services of Military Surgeons in the present frontier war, when every I. M. S. Surgeon has been drawn away from civil duty, the Military Surgeons who are "lent" to our large metropolitan public hospitals, though their places might easily have been filled by independent physicians and surgeons of excellent qualifications and experience, all these military officers, we say, were permitted to hold their snug and lucrative civil posts undisturbed. How efficiently might not their hospital duties have been performed by men both willing and able to take them up. How readily might not the services of these Military Surgeons have been set free as a veritable "war reserve," but strange to say, the perquisites of these war-reserve men, as general medical practitioners, was too strong an incentive to treat the much vaunted principles of the Indian Government, as being not worth the paper they are printed on. And so this anomaly flourishes in Calcutta, Bombay and Madras. Imagine one of these Military Surgeons of this so-called "War Reserve" being allowed to hold a civil appointment in Calcutta, *not* as a doctor, but as an Examiner in Oriental Languages! Could any farce be more ludicrous, and could any stronger argument be adduced to prove the utter weakness and falsity of the reasons upon which the Government bases its claim to perpetuate an anomaly that is so harmful to the public services. We sincerely hope that the question of our public hospitals being officered by open selection from the medical profession, as they are in every country, save India, will engage the active and earnest attention of the public and of the Council of the Indian Medical Association at an early date.

THE DISPOSAL OF TYPHOID DEJECTA.

A DESIDERATUM of the present day, is a means of rapidly and effectually destroying the evacuations in cases of infectious disease. There is only too much evidence to show that the practice of passing them into drains is fraught with danger, while their disinfection or destruction in private houses cannot be relied on.

In many manufacturing towns in England where the pail system of night soil removal is in force, it is the custom to smear a special pail, colored red or green up every house where a typhoid case is known to exist. This pail is charged with a powerful disinfectant and fitted with an air tight lid; it is frequently changed and the contents sent to the destructor.

An apparatus was exhibited at Newcastle in 1893, called the "Newcastle destructor" designed by Dr. ARMSTRONG, Medical Officer of Health, Newcastle-upon-Tyne, and Mr. W. G. LAWS for effectually dealing with these evacuations.

This apparatus, which consists essentially of a hermetically sealed iron vessel of a capacity of 50 gallons in which evacuations and other infected liquids are boiled under steam pressure, was used in the Cholera Hospital at Newcastle during the prevalence of the disease, and found to work well.

The makers are Messrs. GODDARD, MASSEY, and WARNER, Nottingham.

STATE INCONSISTENCIES IN MEDICAL MATTERS.

It is alleged that the Government of India has under consideration a scheme for the increase of pay to Military Hospital Assistants. How is this allegation, which is announced with some measure of authority, to be reconciled with the fact that the Government of India only a few months back recorded its inability to allow the college course or school-training of these same Hospital Assistants to continue beyond three years? The period of study was not only reduced from four years to three, but three important subjects, viz., midwifery, jurisprudence and hygiene, were excised from the curriculum. This was done on the score of economy, and the measure was held to be imperative from financial considerations. The paltry saving supposed to be effected is not only prejudicial to the best interests of the State, but a positive injury to the individual launched into medical practice partially equipped. By a recent enactment we find Hospital Assistants classed among "Qualified Medical Practitioners," and that being so, the curtailment of his sphere of usefulness by the restriction in his education must be deplored. His academic training will no longer place him even on the same footing as the vernacular licentiate in medicine and surgery. He will be an anomaly in the medical world and a hybrid of the dresser-cum compounder type.

PROMOTION STOPPED FOR MILITARY ASSISTANT SURGEONS.

We often wonder if it has struck the Director-General's Office as strangely singular and unjust, that the present method of over-stocking the junior grades of the Military Assistant Surgeons' Service is resulting in a very real grievance to the members of these grades. The authorised strength of the lower grade of the Bengal Branch is 35. It stands at present at 76.

This means that promotion from this grade will involve a period of 7 to 8 years' waiting. How crushingly this will be felt may be seen by the following statement. A lad completes his course at college at 20 or 21, he then gets a salary of Rs. 80. He is 26 or 31 before he gets Rs. 85, at 37 he gets Rs. 110, at 43 he gets Rs. 150, and when he has completed 20 years' service or when he is 42 or 44 years old, he receives the magnificent salary of Rs. 200 per mensem! We doubt if the Director-General's Department has ever had this handship placed before it. If there is any condition likely to set up chronic discontent in the present badly paid state of the Military Assistant Surgeons' Service, it is this unhappy stagnation of promotion. This state of things emphasises the prayer of the memorial of this department that promotion from grade to grade be made to depend on a certain number of years of service, as holds in every other department.

NEW DEVELOPMENTS IN FORENSIC MEDICINE.

There is no knowing to what extent application of [illegible] medicine may not extend. One of the latest developments in Forensic Medicine is M. Megnin's method of determining the date of death of an individual by an entomological examination of the different genera of insects which attack the dead body in the course of its exposure; and the following is a very suggestive example of the practical utility of the idea.

Early in May 1895, the body of an unknown man was found dead in a lonely spot with a bullet hole in the skull. The decomposition of the body was far advanced, adipocere was formed, and in places the bones were partly bare. Body and clothes swarmed with larvæ of pyophilæ casei, and were literally covered with large dipterous larvæ and empty pupæ cases. The police thought that the man had been murdered during the winter in a house near by. The presence of the diptera larvæ and pupæ cases placed the date back to some time during the preceding summer. The body was subsequently identified as that of a man who had been seen near the spot during the harvest season of the previous year; he had also shown a revolver to several people. The revolver was found subsequently near the spot where the body had been found, and the case pronounced to be one of suicide and not of murder, as the police would have it.

MILITARY MEDICAL RESPONSIBILITY.

WHEN we read in a daily paper that the medical arrangements were admirably carried out by General so and-so, one is at first inclined to think that a mistake has been made. This, however, is not the case. The General Officer Commanding is really the person who is responsible for the health of the troops, and this responsibility is only too frequently multiplied by the way in which that official either does not ask for or tacitly ignores the advice of his responsible adviser—the Principal Medical Officer. Under the circumstances it seems rather a pity that a little knowledge of sanitation is not considered a necessary qualification for a General, as their ignorance of, or contempt for the rudiments of this science, must be held largely responsible for the outrageous amount of sickness amongst the troops at the front. It is a pity their duties in this respect cannot be brought a little more home to them, but as long as "Correspondents" at the front consider it their whole duty to throw dust in the eyes of the public, and carefully hush up anything of an unpleasant nature, nothing can be done. It is only too well known that the tales these "Correspondents" tell by the fireside are very different from what appears in their papers, and ever so much more interesting.

THE PHYSICIAN AND MORALS.

SAYS the *Medical and Surgical Reporter*:—"A physician who cannot assimilate morals into his being can never expect to amount to much as a man. In other words, a physician as a man is measured by the depth of his moral nature, and not by the pretensions to professional greatness with which he would veneer his real self. It is for this reason that many men seemingly great are really small. They are out of harmony with true success, because they are out of harmony with their better selves. They play at greatness, for they cannot achieve it. They array themselves, as does a child, with the symbols of greatness—such as affixing to their names L.L.D., Ph. G., etc., with the vain hope that the uninitiated may with reverence bow to their stupendous learning. They interview themselves in the daily press, present the vast array of their accomplishments (largely imaginary), have themselves selected as Surgeon-General to Cuba—all on paper, however—with the same vain hope that some

[illegible] of the medicals and their pretendants, who never succeed, but are always pushing before the public as the gentlemen, as does the public before them. There is a reason for future here, and that is, because they are not of harmony with, and are not true to themselves, for the mere making of money is not professional success."

IS CIGARETTE SMOKING A CAUSE OF DEATH?

SAYS the *British Medical Journal*:—"At a recent inquest on the body of a boy of 16 at Felling, near Gateshead, the jury found that he died from syncope due to nicotine poisoning caused by the excessive smoking of cigarettes, on which the coroner is reported to have said that there seemed to be quite an epidemic of such cases. Though there can be no doubt that excessive cigarette smoking, especially in youths, acts injuriously on the digestive and nervous systems, and, though the cardiac ganglia affects the heart, it would be interesting to learn what were the symptoms which in the case quoted preceded death, and how it was inferred that they were due to cigarette smoking. The coroner urged that the attention of parents should be called to the danger of their children smoking at too early an age. We do not certainly desire to see established in England the Burmese habit of children learning to smoke as soon as they can walk, but we venture to think that the coroner overstated the case when he said there seemed to be an epidemic of deaths from cigarette smoking. It would be satisfactory to have more authentic facts on this subject."

NEW OUT-PATIENT DEPARTMENT OF THE CALCUTTA MEDICAL COLLEGE.

SAYS *Indian Engineering*:—"We have on several occasions referred to this important addition to the accommodation for the sick at the Medical College Hospital. It has now progressed to a point close upon completion, and will, we understand, be brought into use early in 1898. The arrangements are admirable, the place is roomy, well-ventilated and efficiently lighted, and the building will be, when ready, the best of its class in India. The initiation is due to Dr. Ross, late Inspector-General of Civil Hospitals, the design from Mr. W BANKS-GWYTHER, A.R.I.B.A., and the execution by Mr. B. K. FINNIMORE, Executive Engineer, 1st Calcutta Division, ably assisted by Mr. G. TRUSLER, who has been in immediate charge throughout. Externally the building will present a quiet, pleasing effect in its garb of red brick, with pale pink terra-cotta dressing and ornamentation from the well-known Potteries of Messrs BURN & Co., at Ranegunge."

THE ROTTEN STATE OF THE ARMY.

MR. ARNOLD FORSTER in the *Times* and Major RASCH, M. P., in the *Saturday Review* have been pretty plainly representing to the English people the rotten state into which the Army has been allowed to fall under War Office regime. "Our Military advisers" must be either naturally or wilfully blind that they have not discovered this for themselves; the "doctors" could have told them long ago. With the standard for recruits fixed as something under 5 feet 4 inches and 32 inches chest measurement, and 20 per cent. "specials," which means that 20 per cent. of accepted recruits do not even come up to this low standard, what can one expect?

The cry is for more men, which of course means more money; but what really is wanted is better quality, the number is only a secondary consideration when we find that over 20 per cent. are unfit to [illegible] company, perhaps we might [illegible] the enlistment of women as a solution of the difficulty, for it is only too evident they can't get men.

QUININE AS A MALARIA PROPHYLACTIC.

THE recent French conquest of Madagascar has given us further reason to doubt the efficacy of quinine as a prophylactic against malaria. M. LAVERAN in his report upon the memoir of M. M. VINCENT and BOURET on malaria dwelt upon certain interesting facts brought to light in the Madagascar Campaign; the authors condemn the practice of giving small doses—10 and 15 centigrams. These doses are useless, only large doses have been efficacious; more than 50 centigrams, up to 60 and even 75 centigrams are necessary. In order to prevent the occurrence of cinchonism, half a gramme or rather more twice a week is the best treatment. Even these measures, M. M. VINCENT and BOURET fear, are not certainly prophylactic. A competent authority declares that if he were obliged to choose between the protection conferred by quinine against malarial infection, and that of the well known hygienic measures formulated, he should sacrifice the quinine and strictly follow out the precautions.

TREATMENT BY ANTITOXIC SERUMS.

SOME interesting experiments have recently been made in Berlin on the treatment of scarlet fever, measles, pneumonia and erysipelas, by the injection of blood serum taken from persons who had recovered from these diseases.

The results do not appear to have been altogether satisfactory though some advantage resulted.

Of 13 cases of scarlet fever a distinctly favorable effect was observed in three, and the disease was generally shortened. Of nine cases of measles a distinctly favorable effect was noted in two or three; in the remainder the result was doubtful.

Of 14 cases of pneumonia 2 died, in all the crisis occurred between the third and eleventh days.

In 10 cases of erysipelas no definitely favorable results were noted.

THE PHARMACOPŒIA.

Mr. H. E. ALLEN, the Registrar of the General Medical Council of Great Britain, read the following report from the Pharmacopœia Committee:—

The committee having had entrusted to it the duty of preparing the new edition of the British Pharmacopœia, has now the honor to submit for the approval of the Council copies of their final draft of the work subject to the correction of typographical and other errors. The estimated amount to be expended on its production will be about £900. If 20,000 copies are printed the cost to the Council will be about 6s. per copy. The committee accordingly suggest that the price of the volume might suitably be 7s. 6d., but the power of actually fixing the price rests with the Commissioners of the Treasurer. In order that the Pharmacopœia may be issued early next year the committee recommend that it be delegated to the Executive Committee to adopt the fully corrected work as "The British Pharmacopœia, 1898," to communicate with the Commissioners of the Treasury on the question of price, to publish the Pharmacopœia, and to make the legal announcement of publication by notice in the London, Edinburgh, and Dublin Gazettes in accordance with the provisions of the Medical Act, 1858.

NEW MEMBERS OF THE INDIAN MEDICAL ASSOCIATION.

THE following have joined the Association since our last publication:—

Chas. S. Brown, D.A.M.C., Assistant Surgeon, Rawal Pindee.

Alex. A. Temple, L.R.C.P. and S., Calcutta.

G. C. Ringrow, M.D., Assistant Surgeon, Oomeerarry, Bombay.

John Francis, C.M.S., 5 Co. Q. O. Madras Sappers and Miners, Malakand.

F. T. Mantin, Assistant Surgeon, B. G. Hospital, Nowshera.

V. Muthuswamy Dass, L.M.S., Assistant Surgeon, Chickmaglur.

[illegible]lab, C.M.S., Pasrur, Sialkot, Punjab.

Mirza Mohammad Mansoor, C.M.S., 8, Peter's Lane, Calcutta.

George Hancock, M.B., C.M., Edin., 13, Wellesley Street, Calcutta.

THE CALCUTTA HEALTH OFFICERSHIP.

AT a special meeting of the Calcutta Municipal Commissioners, held on the 21st instant, Dr. J. NIELD COOK, at present Health Officer of Madras, was elected Health Officer of Calcutta, *vice* Dr. SIMPSON. Only three candidates were proposed. At the first ballot Dr. CAYLEY, who is now on his way out to India as one of the medical officers selected at Home for plague duty, tied with Dr. NIELD COOK. A second ballot being held the votes ran: Dr. NIELD COOK, 20 votes; and Dr. CAYLEY, 18 votes.

NEW MEMBERS OF THE INDIAN MEDICAL ASSOCIATION PROVIDENT FUND.

The following have joined the I.M.A. Provident Fund as associate members since our last issue:—

C. S. Browne, D.C.M.C., Assistant Surgeon, Station Hospital, Rawal Pindi.

Dr. Mirza Mohammad Masoom, Calcutta.

George Chatham Bingrow, M.D., Assistant Surgeon, Bai Mathbai and Sir D.M. Petit Hospitals, Comercarry, Bombay.

Faizullah, C.M.S., A-52 Native Field Hospital, Fort Lockhart.

Dadabhoy P. Pestonjee, Officiating Civil Surgeon, H.H. the Nizam's Civil M. Service, Kureemnugger Dispensary, Hyderabad, Deccan.

SHORT ITEMS.

Vaccination returns for Bengal increase apace. Even backward districts such as Cuttack and Chittagong show considerable advances upon past records. Several districts, notably in Northern Bengal, show decreases, but this is due chiefly to prevalence of famine and inability to defray the small vaccination charges. It is satisfactory to note that vaccination by human lymph is dying out. In Dr. Dyson's opinion it will soon be altogether superseded in Bengal by the vaccine lymph method.

The question of a vote censure on Dr. Weir, proposed by Dr. Bahadurji, came on for discussion again at the meeting of the Municipal Corporation of Bombay the other day. It was resolved by a majority on an amendment, that the Corporation, while recognising the strenuous efforts made by the Health Officer to deal with the bubonic plague, regretted that he should not have fully recognised the gravity of the situation when the first cases of plague occurred in the town.

A Nursing Association for the Punjab has now been started, A meeting, we believe, has been held at Government House, under the presidency of Lady Mackworth Young, when the following business was transacted:—To elect a Governing Body, appoint a Working Committee with power to make rules and start working, to decide a place where the Home shall be located, appoint a Lady Superintendent, and to decide on the number and class of nurses to be obtained from up-country and the Nursing Association in England.

In a recent despatch the Government of India pointed out the desirability of holding in abeyance the appointment of one of the three proposed Sanitary Officers during the period in which Surgeon-Major A. M. Davies, A. M. S., will remain attached to the office of the Principal Medical Officer, Her Majesty's Forces in India, in order to meet the urgent necessity for competent bacteriological investigation in cases of severe outbreaks of enteric fever.

The Government of India have sanctioned the grant to Military Assistant Surgeons of all grades, while on plague or famine duty, of any acting or charge or house allowance which they may have been drawing at the time of their deputation to such a duty, and which they would have continued to draw but for such deputation, in addition to the deputation allowance permissible under the rules.

It is announced that the monthly *Army List* for December and January will not be published, pending a complete revision, which, we presume, will appear in February. This announcement would seem to indicate that a re arrangement of the existing *List* is not all that is intended, but a complete reorganisation, foreshadowing important changes in the constitution of the army.

Dr. Lloyd Jones, who is in charge of the general plague hospital, Poona, recently invited by public notification all who had sick relations or friends in the hospital to come and visit them on Wednesdays and Sundays. The effect has been that large numbers now go on these days to see their relations, whom they are able to talk to from a short distance.

The following officers of the Army Medical Staff are coming out for a tour of service in this country:—Surgeon-Major E. L. Maunsell, Surgeon-Lieutenant-Colonel W. T. Johnston, Surgeon-Captain A. Watson, Surgeon-Captain C. A. Young, and Surgeon-Lieutenants E. G. Forrest and A. H. Waring.

At the December Doctorate examinations at Brussels, two ladies from India passed the three examinations for M.D., and obtained their diplomas, namely, Miss Blong and Miss L. Edith Sykes, L.R.C.S., Edin., and L.R.C.P. Edin., the latte with distinction."

In addition to the Health Officer of the Barnagore, Cossipore, Chitpore and Maniktolla municipalities, it has been decided to appoint an Assistant Health Officer for each, as the area of the three municipalities is too large for one officer.

Her Majesty the Queen has been graciously pleased to nominate Dr. James Little, of Dublin, to succeed Dr. William Moore as the Crown representative of Ireland on the General Medical Council for the next five years.

Brigade-Surgeon-Lieutenant-Colonel T. H. Hendley, C.I.E., has returned from furlough in England, and has assumed the office of the Presidency Surgeon, Jeypore, and Administrative Medical Officer in Rajputana.

Surgeon-Lieutenant-Colonels G. Hall, J. Duke, and J. McConaghey, I.M.S., of the Bengal Establishment, have been selected for promotion to the rank of Surgeon-Colonel.

Surgeon-Captain E. S. Peck, I.M.S., reverts to Military duty from the date of making over charge of his duties under the Government of Bengal.

Veterinary Captain H.T.W.Mann, A. V. D., and four trained assistants, have been named for service in the British East African Protectorate.

The Secretary of State has sanctioned the selection of Surgeon-Major D. Prain to succeed Dr. King as Superintendent of the Botanical Gardens, Calcutta.

A scheme is under the consideration of the Government of India for materially improving the pay and prospects of Military Hospital Assistants in the four commands.

Brigade-Surgeon-Lieutenant-Colonel Fawcett, Madras Medical Establishment, has been selected for promotion to the rank of Surgeon-Colonel.

THE ANGLO-INDIAN CAUSE IN ENGLAND.

Public Reception to Dr. James B. Wallace.

A crowded commencement of the domiciled European and Anglo-Indian community was held at the Calcutta Town Hall, on Tuesday, the 23rd December 1892, at 8 P.M., under the auspices of the Anglo-Indian Association. The hall was artistically decorated with bunting and banners, floral devices and lovely foliage plants, while the spaces between the magnificent pillars were hung with mottoes, such as "Unity is strength," "The Anglo-Indian Cause," "Success to Britons in India," and others. There was a very large and fashionable gathering of ladies and gentlemen, so that the body and both side aisles of the hall were filled. It was clear that the Directors in announcing that the meeting was to welcome Dr. Wallace had struck upon a popular call, for the response was a most representative gathering, who throughout the proceedings displayed a keen and enthusiastic interest in all that was said and done. On the platform were seated a score or more of the Directors of the Anglo-Indian Association. Punctually at 9-P M the Hon'ble Mr. M. C. Turner, who had undertaken to fill the Hon'ble Sir Griffith Evans' place at the meeting, was voted to the chair, and was introduced in a few well-chosen words to the audience, by the Very Revd. Father V. Marchal, the Officiating President of the Association.

The Chairman then addressed the gathering as follows.—

Ladies and gentlemen,—In making a few introductory remarks before going to the business of the evening, I must ask your kind indulgence in having been called upon at the last moment to fill the place of that distinguished gentleman and accomplished speaker, Sir Griffith Evans, who has met with an unfortunate accident, compelling him to forego his engagement to preside this evening Further, having my time fully occupied during the day, I have been unable to give the consideration that the subject of this meeting deserves. But in glancing hurriedly through the report of that very important deputation, which in July last waited on the Secretary of State for India, I was struck with two very important facts which were brought into special prominence by Dr. Wallace, (cheers), namely, that domiciled Europeans in India and those who have British blood in their veins, amount to about one million, and of this number some 25,000 have enrolled themselves as citizen soldiers In this country citizen soldiers form a very important reserve force, and should it be ever necessary to call them out, they will prove to be a most efficient body, and a substantial aid in time of necessity. (Loud applause). It seems to me a most extraordinary fact that although the State are willing and glad to avail themselves of your services as Volunteers, they will have nothing to do with you as paid soldiers. (Applause). Time will not allow of my going into details, but I am bound to say that I think the employment of domiciled Europeans and Eurasians as soldiers is a subject which deserves most careful consideration on the part of the State (Loud applause). It is, as we all know, nowadays, a matter of extreme difficulty to find employment for our sons (hear, hear), and if we receive no encouragement from those in power, how can we expect to launch the young generation out into the world (Applause). I earnestly trust that this question may receive the serious consideration of the Government of India. (Hear, hear). I would say to those gentlemen who so ably advocate the cause, stick to plain facts and figures, and do not go in for political agitation; do not ally yourselves with any political party in England, but rely on the justice of your cause, and I am sure you will receive the hearty sympathy of Englishmen throughout this country (Applause). As President of an Association which numbers many of your kindred among its members, I can certainly say that you have our complete sympathy and will have our support when it is needed. You have done such good service to the country in the past, and there is no doubt that you will do good and faithful service in the future. (Applause). As we have a great deal to get through this evening, I think we must now begin business. (Loud applause)

The Chairman now called upon Dr. Wallace to address the meeting.

Dr. Wallace, who rose amid loud cheering, said.—Mr. Chairman, ladies and gentlemen, I am sure it must be a source of real gratification to the Directors of the Anglo-Indian Association to find this spacious hall filled with so large, so representative and so brilliant an audience. This fact in itself bears eloquent testimony to the interest that exists, and now seems so intensely emphasised, in the great cause that has attracted so large and influential a gathering of the domiciled European community of this metropolis. It must be an incentive to further zeal and enthusiasm in the Anglo-Indian Cause, to find such a wide and general response from the community to the "call to arms," issued in the public press at such short notice, and in spite of so many counter-attractions. However, here we are, and before I go further, I wish to express our sympathy with Sir Griffith Evans, who had so kindly promised to preside at this meeting, but who, by an unfortunate accident, was prevented from doing so. I wish also to express, on behalf of the Directors, our earnest thanks to the Hon'ble Mr. M. C. Turner for having so generously consented to take Sir Griffith Evans' place at considerable personal inconvenience to himself. I desire also to publicly acknowledge the indebtedness of this meeting to Messrs. Hall and Anderson, the well-known and flourishing drapers of this city, for their liberality in placing these handsome, costly and artistic decorations of this Town Hall at our disposal. I further desire a vote of appreciation and thanks, in anticipation of our excellent programme of music, to the ladies and gentlemen who are giving their time and their talents for our pleasure this evening. Now to the task set before me. The Directors of the Anglo-Indian Association have asked me to speak to you of the work I did for our people in London. Well, this is a duty I have already performed; for I spoke freely of my humble doings in England, at the public reception which the domiciled British community of Bombay so generously gave me on my return to India three months ago. The proceedings of that meeting were very widely published in all the public papers of this country, and I feel I would be guilty of egotism were I to recapitulate my experiences. My earnest desire is that the cause we all have so much at heart—not individuals engaged in furthering that

cause—[illegible] brought [illegible] and widely understood, and thus largely advanced.

The Anglo-Indian Cause is the burning question of the hour. It is the pivot on which the most vitally important concerns of the Domiciled British Community are centred. Our very existence and growth as a people and as a distinct nationality, depend on the manner in which every unit of our community treats this great question. As I said before, the existence, the numerical proportions, the social and political status of the Anglo-Indian people are matters on which the most wide-spread ignorance prevails throughout England, Scotland and Ireland. The disabilities and the grievances under which we labor, cannot possibly appeal to the sense of justice and right of Englishmen in the Mother-country, because they know nothing of us. And so long as this lack of information concerning us remains unsupplied and donor, so long will our claims remain unrecognised and ignored. I am assured, however, of one great fact from my recent experiences in the House of Commons, with Members of Parliament, with officials in the India Office and the War Office in London, and with numerous leading public men in England, Scotland, and Ireland, wherever I had an opportunity of proclaiming the Anglo-Indian Cause, I found eager, attentive, sympathetic hearers, who were not only willing to help us, but who put their promises to the most gratifying practical tests, by giving me very valuable aid. We have strong friends in our kinsfolk in the Homeland. We have friends in India too, but India and the Indian Government are almost powerless against the paramount dominancy of the India Office. That bureau is the great stumbling block to every reform for India, and for the people who live and work in India, only however if they belong to India. The India Office seeks unbounded power in patronage, and it means to have this at any cost. Not only must stores and provisions and manufactures of every description come from England through the machinery of the India Office, but all posts in the Indian service worth having, must henceforth be in the gift of that conclave of retired Anglo-Indian officials. Fired with this determination, the India Office has decreed that henceforth all posts in the higher sections of the State Services in India shall be given to men from England. No Englishman or his descendants in India shall ever get into the Imperial or higher Services, unless he goes to England. There is no longer need to highly educate our boys, for, under the circumstances, any sort of education will fit them for *subordinate* positions. They are doomed never to rise to the standard of imported Englishmen. And why? Not, because they are not fitted by merit or qualification or loyal service to do so, but simply because they are born and educated in India. The very idea of such a policy is preposterously unjust and cruel in the extreme, for it places a ban on the Domiciled British Community of India by branding the accident of birth and education in the land of our adoption, as a stigma and a curse. Will Anglo-Indians quietly and uncomplainingly submit to such a policy? I read your answer in your faces. Never! We will and must protest against such injustice. We possess claims to the higher appointments of the Indian Services, and if Britishers are to hold such posts, then we insist that we are Britishers, and we claim the right to compete with all comers on fair and equal terms. We cannot, and shall not, be forced to the wall in this matter. We must fight this battle of our rights and privileges in England. Once let it be known and felt by the British people that we are being wronged by the India Office and the Indian Government, no power on earth will then keep back the righteous and just removal of our disabilities and the redress of our grievances. I therefore feel it my earnest duty to urge upon this Meeting to raise a Fund, for the purpose of sending a delegate to Parliament next year. The sinews of war are needed in all enterprises, and for this movement, money will be required. Though we spent nothing on our last delegate, our next representative will [illegible] on larger lines, and his [illegible]. I am sure our people all over India will certainly respond to the call to contribute to a "Anglo-Indian Patriotic Fund"; and as I [illegible] will be made, to canvass the whole [illegible] resources to carry out our campaign. I feel that your hearts are in unison in this matter, that you feel the force of what I have said in your hearts, and now I only hope it will result in a very deep feeling in your pockets and that the Fund will be an accomplished fact. (Loud applause).

The Chairman now asked Mr. T. C. Ledlie, Barrister-at-Law, to address the audience. Mr. Ledlie said:—

Mr. Chairman, ladies and gentlemen,—I wish to say a few words on the replies of Government to the memorial presented by your Association on the 22nd May last. That memorial protested against the exclusion of persons educated in this country from the Financial Department (Enrolled List), Public Works Department, Superior Accounts Branch and Railway Department, Superior Traffic Branch. The replies of the Government of India to the memorial was subsequently approved by the Secretary of State for India. The gist of those replies was that the rule of exclusion was made "in the interests of efficiency." I am desirous of laying before you a few facts which will enable you to test the value of this plea.

I do not profess to be a *sub-junta*, (know-all) and cannot therefore say anything about two out of the three departments named. But, in common with others in Calcutta, I know something of the Financial Department to which, therefore, I will confine my remarks.

At a certain time when owing to the impossibility of finding a competent Financier in the Bengal Civil Service, a gentleman had to be sent out from England to deal with the finances of the country. Mr. Wilson, for many years Editor of the *Economist*; was brought out. At that time there was a clerk in the Financial Office named Robert Hollingbery. Shortly after Mr. Wilson's arrival and his assumption of the office of Financial Member of Council, he fell in with a pamphlet on the Income Tax, written by Mr. Hollingbery. It was so closely reasoned and shewed such mastery of the subject, that the Financial Minister was much impressed with it. He said that the author was a thinker and had a head-piece, and that was the making of Mr. Hollingbery. He rose in the Financial Department until he reached the position of Assistant Secretary. He gave his days and nights to his work, and was distinguished for his great industry and research. His notes on financial questions were a repertory of information, and the tomes of the office containing them, are still referred to for the assistance they afford. Mr. Hollingbery published besides a treatise on the Silver Question, two large volumes on the relation of landlord to tenant in Bengal. Besides his own original views which were clearly and forcibly expressed, the book contained official papers of great value, historical documents, which he had fished up out of the Metcalf Library. The book to which he was not allowed to attach his own name, came out anonymously and fell still-born from the press. But it has furnished others, in writing on the rent question, with materials which have been used without acknowledgment. Mr. Hollingbery retired not long after on a special pension of Rs. 400 a month. I have no hesitation in saying that he was second to no official in the Financial Department. Mr. Hollingbery was entirely educated in this country in the old Parental Academy of Calcutta.

Again the Military Accounts of the [illegible] Department up-country fell into confusion and a competent accountant was required to put them right. The Viceroy of the day,—I forget exactly whether it was Lord Mayo or Lord Canning—selected for the work, George Kellner, a clerk in the Financial Department. Mr. Kellner was accordingly deputed to the North-West, where he dis-

[illegible] Mr. K[illegible] [illegible] distinction [illegible] Accountant-General [illegible] to England and [illegible] India Office. While in Europe he studied the [illegible] other systems of accounts, and was so appreciated by the Secretary of State that he was sent to Malta—a post which was virtually that of Finance Minister. Mr. KELLNER was rewarded with the distinction of Knighthood, and is well remembered by us as Sir GEORGE KELLNER. Like Mr. HOLLINGBERY, Sir GEORGE KELLNER was wholly educated in this country.

I may add that Mr. HOLLINGBERY's successor, who has achieved distinction as a statist as well as Sir GEORGE KELLNER's brother Mr. E. W. KELLNER, who has lately had to retire from the Presidentship of this Association, owing to failure of health, and who rose to be a C. I. E. and Accountant-General of Lahore, were both wholly educated in this country.

In the light of these facts I ask you, ladies and gentlemen, to say whether the efficiency of the Financial Department was impaired by their having these distinguished officers. Was it not rather greatly *promoted*; and, if so, why should the Government of India be debarred from employing local talent and from availing themselves of the services of a class who have proved themselves most efficient and serviceable.

The Hon'ble Mr. TURNER now called on Mr. W. C. MADGE, Secretary to the European and Anglo-Indian Defence Association, to speak to the meeting

Mr. MADGE (who was received with cheers) said:--Apart from the honor of addressing you this evening, I have a pleasure in doing so that is all my own, and that no one can take from me. I am sure most of you will forgive me if I refer to it briefly. Eighteen years ago, at the First Annual Meeting of the Anglo-Indian Association in this very hall, it was my privilege to draft a resolution moving for a commission to go to England, to make known our needs as a community to the great English people. At many a subsequent annual meeting I have suggested the same step, and at the last annual meeting I suggested that advantage should be taken of Dr. WALLACE's visit to England, to entrust him with our commission. And now the dream of the past has become a fact. I recall all this for no purpose of self glorification, I do so merely to claim, as a long and careful student and supporter of such a movement, the knowledge to judge how it should be carried out, and I do this simply in order to point out how thoroughly Dr WALLACE has done his work. As a later resolution will deal formally with this matter, I must only free my mind by saying that it could not have been better done, and that Dr. WALLACE has placed our community under an obligation that can never be repaid. (Loud cheers). And now as the special subject entrusted to me to deal with this evening, the recruiting of Anglo-Indian Soldiers: there are two dangers to be guarded against, one the failure to give us any Anglo-Indian recruiting at all, the other to reduce us to the level of native sepoys. A proposal of this latter kind was once seriously made, and if I could only show you the passions of resentment with which it was refused, you would understand why we cannot be made native soldiers. You remember the stirring words of the late Poet Laureate in greeting the Princess of Wales :—

> Normans and Saxons and Danes are we
> But all of us Danes in our welcome of thee, Alexandra!

It is almost a shame to parody these beautiful words, but I am impelled to say :—

> Britons, Anglo-Indians and Eurasians are we
> But all of us Britons in devotion to thee, Victoria!

(Prolonged cheers.)

When the Indian Mutiny swept like a blast of evil wind over the country, there came out from many an obscure Eurasian home throughout the troubled tracts, aye, and from many humble Eurasian hovels, too, men who fought like heroes side by side with their British brothers, to restore British supremacy in India. To this day we have amongst us men whose grandfathers and great grandfathers helped to win this Indian Empire, who are Britons in blood, in habits, sympathies, and instincts, and proud of their great heritage. Why should such men be shut out from military service now? The financial distress of the country adds an additional reason to our plea for recruiting in this country. That it will succeed, there can be no reasonable doubt. Up to 1864, when the CARDWELL scheme came in, there were depôts in various parts of the country at which English and Eurasian recruits were enlisted. The recruiting sergeant at one of these depôts himself told me of scores of men of the old high standard, Englishmen and Eurasians, being taken in. I understand that some of the latter have since been retired in England, and are sighing to join the British Army in India, but may not do so—good matured soldiers as they are—under some absurd rule. I cannot say that any very large number of men would be obtained right off, but the saving of the transport charges, at least in the case of every body of local recruits, however small, is, apart from other grounds, a consideration that a financially strained country cannot rightly despise. Now mark what has gone on at home, while good recruits have been declined in India. From General FIELDING's annual report—he is the Inspector-General of Recruiting—it transpires, that for seven years past, owing to the difficulty of obtaining the kind of men wanted and formerly obtained, but now growing scarce, the standards of both chest measurement and height, have been gradually lowered—the former from 35 to 34·5, 34 and finally to 33·5; and the latter from 5 feet 7 to 5 feet 6, and 5 feet 5 and I think even lower. You will have notified from a telegram 3 or 4 days ago, that Lord Lansdowne at the War Office, was doing all he could to raise the status and improve the prospects of British soldiers in order to attract men. To this no one can possibly object. But while the strain lasts, and men of the old standard of height and chest measurement cannot be secured at home, why should not the right kind of men of the old type be enlisted in India as they were before? The answer that the system of linked battalions suits the Army everywhere but in India—the great training ground of our Army—is surely no answer. However, there is a striking exception. Men of African descent in the West Indies form West Indian Regiments. The idea of men of African descent, born in America, being European British subjects and claiming the right of enlistment denied to us, is a strange one. If the West India Regiment is an exception, why may we not claim some exceptions for this great country, backed as our pleas would be by unanswerable arguments.

I have no doubt that this wrong—which is a wrong to India even more than to ourselves—will be righted if we seriously set about righting it. We must agitate in England and tell the British people what we need and why we need it. Indian natives get much more than we do by incessant agitation. But there is one radical difference between their agitation and ours. In all their agitation,

or make of it—I say it with some reluctance, but the thing should be said—there is an undertone of ill-feeling. Demands are made in the interest of particular classes of agitators rather than in the interest of the great mass. Now there is no such stuff in our thoughts. We believe and maintain that the Government of the country must remain British, and a British tone must pervade it. All we demand is that if we can help in maintaining this necessary British tone, as past history abundantly proves that we can, there is no reason why we should be excluded from serving anywhere. Keep the tone and standard of the civil administration in the British Army as high as possible, let there be no lowering of standard anywhere. Only let us take our place, when we show ourselves fit, beside the men from home. (Loud applause).

Professor ROWE, M.A., of the Presidency College, also addressed the audience in connection with his extensive acquaintance with Anglo-Indian youths, and he commended their intellectual and physical abilities as being equal to similar classes of youths in England.

The following programme of music was rendered during the speeches and the passing of the various resolutions :—

Pianoforte Solo.	Heimath—Kiange	..	Mr. H A Stark, B A.
Song ..	"Ora pro nobis"	..	Mr. H. Moreno.
Vocal Duet ..	"Larboard Watch"	..	Dr. J. R. Wallace, M D, and Mr. J. S. Zemin, F.C.U.
Song ..	"Good Night"	..	Mrs. J S Zemin.
Song ..	"Lum tum-di-diddely-um'	..	Dr. T. J Walte.
Song ..	"A rose in Heaven."	..	Mrs H. E. Gatcke
Violin Solo ..	Balfe's Bohemian Girl	..	Miss Kate Kirkpatrick
Duet ..	"A Nation's Glory"	..	Misses Nellie and Millie Forbes Mitchell.
Song ..	Your Voice	..	Mrs Carr Turnbull.
Song ..	Love's Nocturne	..	Miss Grace Wollaston.

GOD SAVE THE QUEEN. (SUNG BY THE ENTIRE AUDIENCE)

The following Resolutions were placed before the Meeting :—

1. That this meeting of the Domiciled British Community of Calcutta recognises the paramount necessity for the existence of Associations in all the large centres of India, having for their objects the advancement and protection of the interests of the domiciled British community of India (Europeans of all nationalities and their descendants being included in this designation).

Proposed by Mr. JAMES CLEGHORN, C. E.
Seconded by Capt. C. V. PRITCHARD.

2. That this meeting endorses and approves of the aims and objects of the existing Anglo-Indian Associations, and emphasises the urgent need of union and persistent action by the community represented by these Associations and the formation of a Representative National Council.

Proposed by Mr. W. G. J. SMITH.
Seconded by Mr. G. LORIMER, M.A

3. That this meeting approves of the inauguration of the Imperial Anglo-Indian Association in London, to protect and advance the interests of the domiciled British community of India (including Europeans of every nationality and their descendants) and fully recognising the need and importance of such a representative body in London, this meeting expresses its earnest hope that all the Anglo-Indian Associations of India will co-operate with the Imperial Anglo-Indian Association, and duly authorise that body to represent their corporations and to act on their behalf as occasion demands.

Proposed by Mr. W. H. KIRKPATRICK.
Seconded by Mr. H. A. STARK, B.A.

4. That this meeting earnestly calls upon all members of the Domiciled British Community to unite together for the defence of their common interests, and with this object in view, to aid in inaugurating an Anglo-Indian Patriotic Fund, to defray the expenses arising out of an organised representation of their cause in England.

Proposed by Dr. BUSH HART, M.R.C.V.S.
Seconded by Mr. J. ZEMIN, F.C.U.

5. That this meeting is strongly of opinion, in view of the excellent services hitherto rendered by the Domiciled British Community and their descendants, in the administration of the Government of India, that the members of this community have earned a rightful claim to a fair share in the Imperial and Provincial Services of India, and that they should have the acknowledged right to be officially regarded as the Domiciled British Community of India, and therefore the further right to compete for the purely British services in India, on equal terms with competitors from the Home Land.

Proposed by Mr. C. F. OLIVER, B A.
Seconded by Captain R. LUNGLEY, R.N.

6. That this meeting of the Domiciled European and Anglo-Indian Community of Calcutta, held in the Town Hall on Thursday, 23rd December 1897, cordially appreciates and approves the various measures that have been adopted by DR. JAMES ROBERT WALLACE, M.D., F.R.C.S, as the delegate of the Anglo-Indian Associations, for the advancement of the interests of the Resident British Community of India, by suitable representations of their cause to Parliament and to the India Office in London, and this meeting records its hearty thanks to Dr. WALLACE for his disinterested and praiseworthy labours on behalf of his countrymen during his stay in London.

Proposed by the Very REV. FR MARCHAL, S.J.
Seconded by Mr. L. W. DEDEUZ, B.A.

7. That this meeting desires to express its special thanks to MR. HENRY J. WILSON, M.P., and to Captain PIRIE, M.P., for their valuable assistance in promoting the representation of Anglo-Indian claims in the British Parliament, and it desires further, on behalf of their community, to record its grateful appreciation of the sympathy and kindness shown to DR. WALLACE, the delegate of the Anglo-Indian Associations, by the authorities at the India Office and the War Office of London.

Proposed by Dr. J. G. ANDERSON, M.D.
Seconded by Mr. C. P. CROUCH, C.S.

The Meeting was closed by a vote of thanks to the Chair proposed by Dr. J. R. WALLACE, M.D., seconded by Mr. E. C. KEMP, M.A., by three hearty cheers given for Dr. WALLACE and by the whole audience rising to their feet and singing

GOD SAVE OUR QUEEN.

Special Report by J. K. GUEST,
Reporter to "The Englishman."

Current Medical Literature.

MEDICINE.

The Serum Treatment of Leprosy.

Dr. Buzzi, of Berlin, has had the opportunity of attending one of the rare cases of leprosy which happen to come from foreign countries to this city, and he has described it in the *Deutsche Medicinische Wochenschrift*. The patient was a boy, fifteen years of age, who came from South America in 1891. He showed marked symptoms of maculo-tubercular leprosy, such as hypertrophy of the skin of the forehead, the nose, the cheeks, the chin, and the ear; on his face there were disseminated tubercles of about the size of a pea. Tubercles were also present on the extremities, and the skin, especially of the trunk, was covered with brown pigmented spots. The usual internal and external remedies proved useless. New tubercles were formed and the patient's general state became worse. Injections of Koch's tuberculin performed in 1892 were very injurious, for new eruptions followed and there was suppuration at the places where the injections were made. In 1897, when Dr. Carrasquilla, of Bogota, advocated the serum treatment of leprosy, Dr. Buzzi obtained a supply of the anti-leprosy serum, and from February to June twenty-six injections of from 0·3 c.c. to 3·25 c.c were given, the whole quantity employed being 42 c.c. The injections were given at first twice a week, then once a week, and afterwards once a fortnight only. The tissues round the place of the injections used to become œdematous; the injections themselves were rather painful, but no suppuration followed. Well-marked collapse ensued twice. Two or three hours after the injection the temperature generally rose and within eight hours reached 39° or 40°C. (102·2° or 104°F.), the commencement of the rise being marked by a rigor. During the night the temperature became normal after free perspiration, but the following day it rose again. The injections were nevertheless continued. Dr. Buzzi observed in the leprous tubercles the same alterations which were described by Dr. Carrasquilla as a sequel of his injections. The tubercles at first became swollen and were then partially absorbed, the hypertrophied tissues of the extremities decreased in size and the skin became smoother, the ulcerations of the palate and uvula healed up and those of the nose improved; the patient's weight also increased from 39½ kilos. to 45½ kilos. (from 87lbs. to 100 lbs.). The treatment has now been discontinued for about four months. Some new tubercles which appeared during and after the treatment were spontaneously absorbed. Although it is still uncertain whether the improvement will continue, the injections of serum have so far yielded results which are much better than those obtained by any other method of treatment.—*Lancet.*

Writer's Cramp.

Edward W. Wright states that writers' cramp has three chief theories regarding its pathology:—

1. A local disease; a weakness in some muscles permits the overaction of their antagonists, which increases the spasm.

2. A reflex action; the result of the stimulation of the sensory nerves in the act of writing.

3. A central origin; a want of proper balance in the co-action of the motor centres concerned in the action of writing.

The latter seems to be the most satisfactory. In the muscular group of the eyes we can have all of the causes present. If the causes be present in the ocular muscles that produce writers' cramp in the hand of writers, can we not have cramp in the muscles involved in reading?

Constant tension of all the ocular muscles at close range for long periods of time, with a weak individual muscle or pair of muscles, with overtaxed nerves, and an exhausted cortex, are the prominent conditions that would lead to spasm or cramp of the ocular group of muscles.—*Univ. Med. Jour.*

Acetonuria.

Nebelthau relates an exceptional case in a woman who was much wasted. There was no evidence of visceral disease, and there was no sugar in the urine. The breath smelt of acetone, and the urine gave a most marked reaction of aceto-acetic acid. There was vomiting, and the vomit also contained acetone. An investigation was made into the metabolism of this case. In the first or comparatively fasting period, acetone, aceto-acetic acid, oxybutyric acid and ammonia were found. The acetonuria was not so marked as in a severe case of diabetes, but exceeded the amount usually present when the patient is dieted. The amount of urine was small, and hence a considerable excretion of acetone occurred through the lungs. The urine contained during this period albumen and casts. Cases of intestinal intoxication have been recorded where there has been albuminuria with casts as well as acetonuria. The total nitrogenous excretion was very low in the first period; the patient had taken very little food for some three years past. In the second period the vomiting was controlled by means of cocaine and suggested treatment, and a sufficient amount of food was taken. Now there was considerable nitrogenous retention, and the weight increased. With the sufficient nutrition the smell of acetone in the breath, the reaction with ferric chloride in the urine, and the increased ammonia excretion disappeared. It seemed to be a case of hysterical anorexia and vomiting with consequent inanition. Thus a considerable excretion of acetone (4 g. in the day) may exist without producing much disturbance of the general condition.—*Brit. Med. Jour.*

The Dreams of Hysterics and Epileptics.

An Italian alienist (De Sanctis) has been making an interesting study of the dreams of hysterical and epileptic patients and claims to have found that out of 56 cases of grave hysteria, 35 were fair dreamers, 10 great dreamers, and 8 did not dream at all. Frequent dreaming was associated with light sleepers—the more profound sleepers not dreaming at all. In 45 cases of *grand mal* there were only 10 dreamers. In 21 cases of *petit mal*, 16 were great dreamers, 4 fair dreamers, and 1 (a sleep-walker) did not dream at all. In the hysterical, dreams of pain and anguish were most frequent than those of fear and terror, and then those erotic or otherwise pleasurable. As to the character, the dream of large animals predominated, while in alcoholism the dreams are of tiny animals, "micro-zooscopic." The dreams of epileptics were fewer from terror and animal fears, and erotic dreams were more constant. With epileptics the dream vision is brief and simple; in hysteria it is romantic and complex, and in this relation it is suggested that the sex is a determining factor—the hysterical subjects being women and the epileptics men.—*Pac. Med. Jour.*

Night Terrors.

Braun, after critically discussing the existing theories on favor nocturnus in children, declares it to be a disease by itself, which is closely allied to the conception of neurasthenia, *i.e.*, "an irritable weakness." Following this, a description of the characteristics of the attack and their demonstration is given. The sudden jumping up of the infant out of its sleep—symptomatic especially in colic—has no relation to night terrors. The etiology as well as the treatment is that of neurasthenia, and the latter should be pointed in the direction of nutrition and education.

[illegible]

[illegible] Diseases of the Rectum.

[illegible] in the *Journal of Medical Science* gives the following conclusions in a paper written a year ago:—

1. Operate upon all cases of fistula where there is sufficient vitality or nutrition to heal the wound. Always divide the fistular membrane at the bottom of the tract and pack the wound to the bottom for the purpose of healing by granulation.

2. Always open abscesses early to prevent fistula in ano.

3. If you operate on a fistula in a tuberculous patient, give him the benefit of the doubt.

4. Never fail to examine patients thoroughly for small sinus leading out from the main tract, and for an associate stricture, which may be the cause of the fistulous tract.

5. Never cut the sphincter but once in any operation, and be careful and warn the patient of the danger of incontinence.

6. Confine the patient in bed, not trusting to the care of the nurse exclusively. Tuberculous cases should be an exception to the rule; give them moderate exercise and fresh air.

7. Physiologic rest is the first principle in the cure of all disease.

8. In all operations involving the rectum it is good surgery to dilate the sphincter.

9. All cases of fistula in ano should be operated upon, and best by the knife, except in cases of Bright's disease, cancer, cardiac and hepatic affections.

Fractures of the Skull.

In a consideration of the permanent or later results of these fractures, Dr. William N. Bullard draws the following conclusions: "1. Out of seventy persons with fractures of the skull, thirty-seven presented no symptoms when examined some time later. 2. Only seven persons presented serious symptoms, and in at least four of these it is doubtful whether the symptoms were due to the injury. 3. The most frequent consequences found were headache, deafness, dizziness, and inability to resist the action of alcohol on the brain. 4. Out of the fifteen cases in which operation (trephining, etc.,) was performed, twelve had no symptoms; in another it was doubtful whether the symptoms present were due to the injury; in another the symptoms were slight (headache rare, tension over the wound while lying in bed); the other was deaf, but had no other trouble. We are justified, therefore, in concluding, so far as our statistics lead, that those cases in which trephining was performed have shown much better results, as far as the symptoms discussed are concerned, than those in which no operation was performed."—*N. Y. Med. Rec.*

Dupuytren's Contraction of the Fingers.

Frau brings forth several facts in support of the view that retraction of the palmar fascia is due to some predisposing constitutional condition, and that traumatism and external irritation play but a subordinate part as more exciting causes. The symmetry of the lesions, which is one of the most frequent characters of the affection, favours this view. Moreover, the contraction is often associated with general conditions marked by trophic disturbances. Rheumatism and herpetism have often been noted in the hereditary and personal antecedents of the subjects of this affection, and many authors have pointed out its occasional association with gout. It has also been observed, though less frequently, in diabetic patients. Allusion is made to its occasional coincidence with induration of the fibrous sheath of the penis, an instance of which is published by the author. Palmar contraction is sometimes met with in cases of nerve affections, such as tabes, epilepsy, and general [illegible] paralysis. The author recognises the influence which [illegible] only exciting, of traumatism, and points out in favor of such influence the almost constant commencement of the contraction in the fourth and little fingers. A case, however, is here recorded in which the affection commenced on both sides in the thumb.—*Brit. Med. Jour.*

Wound of the Brachial Plexus: Successful Secondary Suture.

The following case is recorded by Dr. Humphrey Martin:—A man was cut with an axe along the posterior border of the left sterno mastoid muscle. The wound commenced one and-a-half inches above the clavicle and ran upwards and backwards for two inches. The surgeon who was called said that it was one and a half inches deep and had divided the nerves, but he only sutured the margins of the wound. Sensation was lost over the lower left side of the occiput, the lower anterior triangle of the neck, and the area supplied by the descending cervical nerves, the outer side of the arm and of the extensor surface of the forearm, and the thumb and index fingers. At first the arm was useless, but a month afterwards the patient could flex and extend his fingers and move his thumb, but the muscles of the forearm were wasted. There was complete paralysis of the deltoid, biceps, coraco-brachialis, brachialis anticus, triceps, and scapular muscles. The pectorals were very weak. Supination and pronation of the forearm were very defective. The flexors and extensors of the wrist and fingers acted well to faradisation, as did also the serratus magnus, infra-spinatus, and rhomboidei. The deltoid, supra-spinatus, pectoralis major, biceps, triceps, coraco-brachialis, brachialis anticus, and supinator radii longus gave no response. To the constant current the muscles supplied by the median nerve reacted when one rheophore was placed over the scar and one on the muscles, but not those supplied by the supra-scapular, circumflex, musculo-cutaneous or musculo-spiral nerve to the triceps. It was concluded that the cord formed by the union of the fifth, sixth, and seventh cervical nerves, just above where the supra-scapular nerve comes off, must have been divided. On the fortieth day after the injury a three-inch incision down to the posterior border of the sterno-mastoid was made, dividing the platysma and the deep cervical fascia. Some small nerves, probably the descending cervical, were seen. These were pulled backwards and by carefully deepening the wound the distal end of the cord mentioned was found. The proximal end which was slightly bulbous was found half an inch above this. The ends were trimmed and united by kangaroo sutures. Some recovery of motion and sensation was evident soon after the operation, and this steadily increased until the patient had a useful arm. When last heard of he had recovered power in all his muscles except the deltoid, which was improving, and he had regained sensation except in the area supplied by the circumflex nerve.—*Lancet.*

Flexion Cure for Sciatica.

P. Bonuzzi reports ten absolute cures in fourteen cases of obstinate sciatica, treated by his method of forced anterior flexion of the body preceded and followed by massage at intervals of one to five days. Improvement commences with five or six, and the longest time required was twenty sessions. When all other means have failed, he recommends this treatment, which is merely the bloodless stretching of the nerves involved in the meninges. He never uses chloroform, but advises it in extremely painful cases. Only one case resisted this treatment completely.—*Jour. Amer. Med. Assoc.*

[illegible]

Elevation of the Uterine Artery.

A method of ligating the uterine artery safely and easily by laparotomy is described by [illegible]. By pulling the round ligament forward and pushing the Fallopian tube backward, a triangular space is formed, in which an incision is made behind and parallel to the round ligament. By dissecting downwards in the subperitoneal cellular tissue, in close proximity to the anterior layer of the broad ligament, the artery can easily be found and ligated. The authors assert that by thus stretching the broad ligament the ureter is located much deeper than the artery, and at the same time is nearer the posterior layer of the ligament, and can thus readily be avoided.

SENIGOFF by this method has ligated the uterine arteries eight times, and in seven of the cases removed complicated uterine tumours, almost without any blood loss. The operation has once been performed for uterine hæmorrhage due to fibroids, without subsequent removal of the tumours. Very large tumours render the operation more difficult.—*Edin. Med Jour.*

Statistics of Eclampsia in Pregnancy and Labor.

HALBERTSMA has observed 109 cases, 49 being closely analysed. Of these 31 suffered during pregnancy, and 18 at the beginning of labor. In 7 eclampsia set in before the eighth month of pregnancy, all mothers saved, but 6 children lost, in the case where the child was saved incision of the os (DUHRSSEN'S practice) was undertaken. Of eclampsia later on, HAMBERTSMA classes 5 as "light cases," 1 "moderately severe," 1 sufficiently peculiar to be set aside from the rest (spontaneous delivery, pneumonia, gangrene of the lung), and 17 as definite "heavy cases." Out of the 17, 2 are rejected on account of some uncertainty about treatment, whilst in 7 neither Cæsarean section nor DUHRSSEN'S incision was practised, and all died, whilst in 8 when one or other of these operations was undertaken 6 were saved. HALBERTSMA here notes that 1 death followed Cæsarean section, the first he ever performed, many years ago. It was done before the days of antiseptics and precise suturing of the uterine wound, 6 of the 18 cases of eclampsia beginning with labor are classified as "light," 12 as "severe," no less than three quarters being lost. None of the unfavorable cases underwent Cæsarean section or incision of the cervix, and none received timely assistance from more common artificial resources. In 1 the pelvis was contracted; 1 patient was an old primipara. There remain 8 cases that were saved, in 2 incision of the cervix was practised, in the third chloroform and morphine were administered, and when the os was completely dilated the forceps was applied. *Halbertsma* favors this line of treatment, but states that should it fail the continuance of the fits will be more deadly to mother and child than Cæsarean section.—*Brit. Med. Jour.*

Dental Affections and their Relations with the Genital Functions in Women.

M. JAMIN, in the *France médicale* for October 2nd, states that during menstruation or the days which precede it, patients often complain of pain in the teeth and in the gums. These pains are more frequent at puberty, at the establishment of menstruation. The teeth may be absolutely healthy or correctly plugged. The gums are tumefied and sensitive. Gingivitis may appear, with or without local causes, at the time of menstruation. Teeth that are spontaneously [illegible] are also sensitive on contact with instruments. Very often the patients complain of an increase of the salivary secretion.

These pains may give rise to very distressing [illegible] in the ear, and they may be [illegible] connected with a stomatitis dependent upon [illegible]. All these troubles become attenuated, [illegible], says the author, under local treatment, such as painting the gums with tincture of iodine and washing the mouth with an emollient together with a proper medication to favor the appearance of menstruation.

The same symptoms are also observed in many women who have not menstruated or who have reached the menopause.

A menstrual period, continues the author, has been said to be a contraindication to the extraction of teeth, but in reality there exists but one contraindication of this kind and that is in hæmophilia, which is shown by an incessant tendency to various hæmorrhages, but, on the whole, such cases are very rare.

The unfavorable influence that pregnancy exerts on the vitality of the teeth renders the care of the mouth and of the teeth more imperative than at any other time.

During lactation the care of the teeth is no less imperative than during pregnancy, in order that a woman may be a good wet-nurse, her teeth should be kept in as good a condition as possible in order to enable her to chew properly.—*N. Y. Med. Jour.*

Some Points of Preventive Treatment in the Diseases of Women.

DR. A. E. GILES, writing in *The Hospital*, says that the first question here is of overstudy. Probably the average girl can acquire as much learning as the average boy, but to do so she requires bodily health and strength equal to his. Now the boy and girl work under different conditions, which, if ignored, lead to disaster. Let girls pursue their study, but more leisurely, they will arrive at the same goal, but a little later. Physically and emotionally a girl arrives at womanhood earlier than a boy arrives at manhood; this necessitates a corresponding saving of energy in some direction, and the direction in which this economy of energy is to be sought is in intellectual activity. Secondly, it should be impressed upon parents that premature emotional excitement is bad; sensational love novels should be avoided, and the "sex question" left dormant as long as possible. The idea that marriage is the only goal of a girl's existence should be discouraged for, while it may be true that in the role of wife and mother the average woman is seen at her best, the preparation for this position is best attained, not by directly aiming at it but by the development of physical health, by training of the mind, by breadth of thought and widening of interests.—*N. Y. Med. Rec.*

A Pedunculated Fibroma of the Broad Ligament Simulating a Large Salpingitis.

UNDER the above title SIBUT reports the results of a necropsy upon a woman who had died of phthisis. The uterus was of normal size, and carried an intramural fibroid projecting from its anterior surface and left side. The left tube was thickened and cystic at its outer end. The left ovary was surrounded by an inflammatory zone; it was cystic and was grooved on its outer surface for the reception of a pedunculated fibroma of the broad ligament as large as a chestnut. The fibroma was attached to the ovary in a way similar to that of the head of the humerus and the glenoid cavity. The pedicle was twisted. The right tube was dilated at its outer end and the right ovary was cystic. There had been no pelvic symptoms during life. Probably everyone would have concluded from an external examination that the fibroma of the broad ligament was a salpingo-ovaritis. The inflammatory lesions were probably tuberculous.—*Brit. Med. Jour.*

PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

A New Theory of the Cause of the First Sound of the Heart.

TWO of the chief events which takes place during systole, namely, the closure of the auriculo-ventricular valves and the muscular contraction of the ventricular walls, are regarded by many authorities as the source of the first sound. The results of QUAIN'S latest investigations lead to the conclusion that none of these explanations are satisfactory. He points out that the auriculo-ventricular valves do not contain the necessary mechanism for the production of the sound, and from the fact that it can be heard independently of the existence and action of mitral and tricuspid valves, and that in some of the lower animals, especially reptiles, these valves exist only in a very rudimentary form, and that in such animals the first sound is distinctly heard, he concludes that "the weight of evidence is clearly against the possibility that the structure or the functions of the auriculo-ventricular valves is the source whence proceeds the first sound of the heart." Another reason for his rejecting the generally accepted theory for the first sound of the heart is that the feeble sound emitted by even large masses of muscles powerfully contracting is not to be compared with the characteristic booming of the systolic sound, and he points out that the contraction of the heart of a turtle removed from the body gives no such sound, even in a modified degree. Having thus considered the generally accepted view, he gives evidence to show that the first sound is produced by the impact of the blood driven by the action of the muscular walls of the ventricles against the block produced by the columns of blood in the pulmonary artery and aorta, which press upon the semi-lunar valves. His reason for this conclusion is that sound must be conceived to be a phenomenon resulting from resisted motion, and the movement of the blood is directed against a fixed and definite resistance, as that of the blood pressure in the aorta and pulmonary artery.—*Brit. Med. Jour.*

The Climacteric Period in Men.

ALTHOUGH there is no abrupt cessation of function in the male at all corresponding to the menopause in women, there is nevertheless a "critical period" in his physiological life, says the *Med. Press.* The change is one intimately associated with inutrition. The digestive and assimilative functions begin to slow down between forty and fifty years of age, and the organism, as a whole, undergoes a readjustment. If the digestion remain active while assimilation becomes less perfect, an increase in weight, due to accumulation of fat, takes place. If, on the other hand, digestion is the first to fail, symptoms of dyspepsia, with associated loss of flesh, characterize the period of transition. It is in athletic individuals of active muscular habit that the manifestations are most marked. A time arrives when lessened nutrition renders it impossible to maintain the normal activity of the muscular system. The eliminatory organs perform their function less perfectly, and the processes of dissimilation are hindered. The accumulation of the products of metabolic tissue change in the system reduces the vitality of the subject and indisposes him to the routine amount of exercise. If the subject fail to grasp the significance of these sensations he renders himself liable to various functional disturbances which may culminate in organic disease of the organ or organs most exposed to the strain. Even if he yield to the pressure put upon him, it takes some time for the muscular and vascular systems to tone down to the reduced standard of vitality, and during the period of adjustment he is apt to suffer from a variety of more or less distressing feelings, which not unfrequently determine mental depression. The change is not unlike that holiday spent in active physical exercise. There is the same want of harmony between nutrition and muscular exertion, but, in the waning adult, there is, of course, the factor of increasing arterial rigidity and general loss of tone on the part of the tissues. The so-called "critical period" is only critical in so far as the readjustment of the organism to changing conditions is interfered with. Those who have always led a sedentary life are less subject to these disturbances than the more robust and actively disposed. Once the harmony of the functions has been restored the individual resumes his normal existence, though on a lower scale, and he ceases to be liable to the visceral engorgements which are apt to result from "retrogressive irregularity."—*Med. & Surg. Rep.*

The Differentiation of Gonococci.

STEINSCHNEIDER gives his latest views on the subject He first points out that the gonococcus will not grow on the ordinary cultivation media such as agar, gelatine, peptone, bouillon, etc., but can be cultivated on serum mixed with agar. The author confirms the good results obtained by SCHAFFER by combining a watery extract of spleen with serum agar, on which the gonococci grow more abundantly and quicker. He thinks the use of serum spleen agar useful where a quick result is required, but owing to degeneration also taking place more quickly further cultivations are best done on serum media alone STEINSCHNEIDER draws attention to other diplococci which microscopically resemble the gonococcus, especially KIEFER'S meningococcus occurring in epidemic cerebro-spinal meningitis; this coccus, however, differs from the gonococcus in staining by GRAM'S method, and in growing well on glycerine agar. He concludes by requiring the following conditions in order to establish a certain diagnosis of the gonococcus. (1) Treated with GRAM'S method and a contrast stain, the gonococci are found in the cells stained by the contrast stain, but are not stained by GRAM'S stain; (2) cultures grown on serum agar but not on agar alone; (3) diplococci obtained from such cultures do not stain with GRAM'S method.—*Brit. Med. Jour.*

The Pathogenic Microbes of Pneumonitis in Diseases of the Eye.

WEEKS writes:—"Different forms of micro-organisms of pneumonitis are described and a resumé of the experiments of various investigators as to the influence of these micro-organisms upon the tissues of the eye and the inflammatory processes to which they may give rise. The evidence collected, the author says, is sufficient to establish the fact that the pneumobacillus of FRIEDLANDER is capable of producing grave ulcerative processes in the eye, and that the pneumococcus of FRANKEL (Micrococcus Pastueri, STERNBERG) has been observed as the pathogenic micro-organism in cases of tenonitis panophthalmitis, hypopion keratitis, conjunctivitis and probably in some cases of dacryocystitis. The contagious nature of pneumococcus conjunctivitis, although probable, is not yet fully proven, nor is it yet a fully established fact that acute conjunctivitis can be produced by introducing into the healthy conjunctival sac pure cultures of the germ; further corroborative evidence must first be obtained."—*Jour. Eye Ear & Throat Diseases.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Landlords and Drains.

Questions relating to drains have lately claimed a considerable share of attention from the newspaper-reading public. Complaint is made that the very laying of the drain is at fault, even when the surveyor certifies that all is right. A correspondent in a morning paper broadly asserts that in the district where he lives most of the houses built since 1891 "are not in accordance with the London County Council by laws as to the sanitary arrangements, nor with the deposited plans of the drainage." We need hardly point out that if this be so it is a distinct fraud, and that if the surveyor has certified to a new house being fit for occupation when he has not exercised due diligence to ascertain that it has been built in accordance with the plans deposited with the vestry, he runs perilously near being implicated as a participator in the fraud. There is no doubt that the practical separation between the surveyor's department and the health department of the vestries is a great evil, leading to plans being passed and buildings being erected which are soon condemned by the health officers. A case occurred, however, a few days ago which shows what power the sanitary inspector possesses, and how well supported he is by the courts in enforcing good sanitary work. In this case a man had taken a house subject to certain repairs and alterations being made. The plaintiff, a builder, was engaged by the agent to make these alterations, and during the progress of the work one of the city sanitary inspectors insisted on certain other work being carried out beyond that which appeared in the specification. The inspector spoke to the agent about it, and the work was done according to his directions. The landlord, however, refused to pay more than was in the contract. It was admitted that the inspector did not serve a written notice requiring the extra work to be done, but Mr. Commissioner Kerr, before whom the case was tried, held that this was not necessary. It was, he said, no use opposing sanitary inspectors when they wanted necessary work done. There is another way out of such difficulties, however, which is sometimes adopted by landlords of the more wily sort, which has led a correspondent of one of the papers to feel serious qualms of conscience and to entertain grave doubts in regard to his duty towards his possible neighbour. He was in treaty for a house; he had, in fact, taken it subject to the report of his surveyor that the drains were in good order. The landlord had stated that they were in perfect condition. The surveyor, however, found them to be as bad as they could well be. On reporting this to the landlord, and asking if he would put them right, an answer was received to the effect that he would not consider the applicant any further as a possible tenant. "So far I am safe," says this correspondent, "but what of the tenant who does not adopt my precaution, and takes the house, as most people would, upon the assurance of the owner or his agent?" What, indeed? and what course should this conscientious correspondent take to warn prospective tenants? Clearly there is a death trap waiting for someone. Shall he stand idly by and see the innocents walk in, or what shall he do? The ethical side of the great drainage question threatens to be as complicated as the legal.

Condensed Milk in Infant Feeding.

C. G. Kerley calls attention to the difference existing between the composition of breast milk with a 3½ to 4 per cent. of fats, a 7 per cent. of sugar and a 2 per cent. of proteids, and condensed milk which is usually administered in a one-in-twelve dilution giving a 0·5 per cent. of fats, a 4 per cent. of sugar and a 0·6 per cent. of proteids. The deficiency of fat may be made up by the addition of cream, in the poorer patients by administering cod-liver oil after feeding. The proportion of proteids by the addition of the condensed milk to a meat broth; by boiling a pound of lean beef in a quart of water, until the liquid is reduced to a pint, this broth contains 0.8 per cent. of proteids. One part of condensed milk added to twelve of the broth makes a mixture of 0·5 per cent. of fats, 4 per cent. sugar and 1·4 per cent. of proteids, this with the addition of cod-liver oil to the diet to bring up the fats, answers very well for an infant three months of age. At six months the proportion should be one part of condensed milk to nine of broth, giving a 0·75 per cent. of fat, a 5 per cent. of sugar and 1.7 per cent. of proteids, this does until the age of nine months, when some of the proprietary infant foods may be substituted. His opinions in brief are: (1) In the artificial feeding of infants always determine as accurately as possible the percentage of the food constituents. (2) Condensed milk alone is an indifferent substitute for mother's milk, no matter what the age of the infant may be. (3) Condensed milk alone should not be given after the third month. (4) Condensed milk, fortified, may be made an acceptable diet for infants; alone, it is a food upon which a certain number of children exist until age or a changed condition allows of a better diet; and inasmuch as there is nothing to take its place among the very poor its value to them is inestimable.—*The Med. Age.*

Sufficient Complaint in Malpractice Case.

The complaint in Crowty v. Stewart alleged that the plaintiff was kicked on the right leg by a vicious horse, and the same thereby broken and greatly injured. That, at that time, he called the defendant, a surgeon, and informed him of the manner of receiving such injury and employed him, as such surgeon, to examine such broken leg and ascertain the extent of the injury thereby caused, and to set the same, if broken, and to treat and heal the same, for whatever the injury was to it. That for that purpose the defendant undertook, as a surgeon, to examine the injured leg to ascertain whether the same was broken and also undertook to treat and heal it for whatever the injury to it was That pursuant to said undertaking the defendant examined the leg in a negligent and unskilful manner, and failed to ascertain that the same was broken, or the extent of the injury to it, and treated and tried to heal the leg as though it was not broken, greatly to the plaintiff's injury, making him sick, causing him much pain and annoyance, and putting him to great expense, etc. The sufficiency of this complaint was demurred to, but the supreme court of Wisconsin holds that it contained in substance the averment which it has declared to be necessary in a malpractice case, and was entirely sufficient.—*Jour. Amer. Med. Assoc.*

Is Crime a Disease.

Of 394 thieves, 74 are dolichocephalic, 139 mesocephalic, 191 brachycephalic; of 107 homicides, 21 are dolichocephalic, 31 mesocephalic, 54 brachycephalic; of 92 sexual offenders, there are 13 dolichocephalic, 30 mesocephalic, 38 brachycephalic; of 54 swindlers, there are 9 dolichocephalic, 15 mesocephalic, 30 brachocephalic. A study of the individual indices shows a considerable proportion to be entirely outside of the physiologic limit. This is most marked among the sexual offenders, in whom the cephalic index was in itself absolutely pathological in about fifteen per cent.; that is to say, considering the antero-posterior diameter of the cranium as 100, then the transverse was represented by less than 76 or more than 87, the former being extremes of dolichocephalic and the latter of brachycephalic skulls. The brachycephalic skulls much predominated in the entire group of criminals.—*N. Y. Med. Rec.*

THERAPEUTICS AND PHARMACOLOGY.

Modern Treatment of Sunstroke.

The whiskey treated in hospital during 1896, 197 cases; 185 recovered and 12 died. The temperature ran from 105° to the limit of the thermometer and in many cases was as high as 108° and 113°.

His treatment was as follows:—The ambulances were supplied with ice, which was put to the patient's head as soon as he was picked up. Upon admission the patient was immediately stripped, the temperature taken *per rectum*, and the body covered with a sheet, upon which were placed small pieces of ice. Ice water was dashed on the patient for 30 or 40 minutes. The most efficacious stimulant was the pouring from an elevation of a fine stream of water upon the forehead. This was continued for one to two minutes at a time and repeated. At the same time the patient was given forty minims of the tincture of digitalis hypodermically—except the full-blooded cases, which were bled.

When the temperature returned to about 104°, the patient was covered with blankets and hot bottles applied. This was done to prevent subnormal temperature and collapse. When consciousness began to return, whiskey was given. Strychnine was never given; convulsions were treated by chloroform, but they were rarely dangerous. In cases of prolonged unconsciousness, nourishment and stimulants were given by the stomach tube. Caffeine and whiskey were chiefly given, and in extreme cases hypodermics of whiskey, but never morphin. As death seemed to be the result of respiratory paralysis, artificial respiration was kept up for a long time, with surprising results. The after-treatment consisted of light diet, stimulants, fresh air, ice cap, and large doses of spirits of mindererus.—*Med. and Surg. Rep.*

Atropine

1. In no case of questionable diagnosis, in persons over forty should atropine be used.

2. In every case, while using atropine, except in threatened perforating ulcers, the tension of the eye should be taken daily.

3. In all cases, where it is necessary to use atropine as long as several weeks, an occasional instillation of eserine is a good safeguard.

4. That numerous cases of glaucoma are caused by the injudicious use of atropine there can be no doubt.—*Med. Brief.*

The Prevention of Consumption.

Dr. B. W. Richardson, in a late number of the *Asclepiad* states that an observation of the following rules will benefit those having a tendency toward pulmonary tuberculosis:

1. Pure air for breathing is the first rule for the prevention of consumption.

2. Active exercise, out-door as much as possible, is essential for the prevention of consumption.

3. Uniform climate is important for consumptives.

4. The dress of the consumptive should sustain uniform warmth.

5. The hours of rest should be carefully regulated by the sunlight.

6. Out-door occupation is preventive.

7. The amusements of consumptives should favor muscular development, and sustain healthy respiration.

8. Cleanliness in the broadest sense is of special moment.

9. Every precaution should be taken to prevent colds.

10. The diet of consumptive people should be ample, with full proportion of the respiratory foods.—*Lancet.*

Diabetic Sugar.

The simplest test for diabetic sugar is to place a drop on a piece of bright tin, which is held over a spirit lamp until the urine has evaporated. If sugar be present the last portion of the urine will give the characteristic appearance and odor of burnt molasses.—*New. York. Med. Times.*

For Removal of Warts and Corns.

℞ Acid salicylic... ... ... 1 (2m.)
Ext. cannabis indic ... ... 88 (gr. v.)
Collodion flex 16 (3m.)

Sig.: To be painted over such an area, twice daily, for three days, when an oil poultice is applied over night.—*M. & S. Rep.*

Carbolic Acid Burns.

Thoroughly wash hands with alcohol, when the burning and tingling will almost immediately cease. Unless employed immediately, however, the alcohol has no effect. When the time elapsed since the burning is too great for alcohol to be of value, brush burns with a saturated solution of picric acid in water.—*Univ. Med. Mag.*

Cold Water in Diseases of the Ear.

Becker makes use of ice bandages, or Leith's apparatus in traumatic cases involving the external parts of the ear; in inflammatory processes in the external auditory canal, drum membrane, tympanum, mastoid process; and in chronic suppuration, where there is pain or œdema of the skin over the mastoid process.—*The Otologist.*

Cough Mixture.

A favorite formula is

℞ Liquor morphine acetate ... 8 drachms.
Dilute nitric acid ... ... 1½ drachms.
Honey of squill ... ... 4 drachms.
Mucilage gum Arabic ... ... 2½ ounces.
Glycerin .. .. 2 drachms.
Syrup red poppy ... ... 2 drachms.
Cinnamon-and rose-water to make ... 6 ounces.

One or two teaspoonfuls five, six, or seven times in the twenty-four hours. The coughing in pertussis may be similarly relieved.—*The Practitioner.*

Threatening Baldness.

Quinine muriate ... ... 30 grains.
Tannic acid ... ... 60 grains.
Alcohol (70-per-cent) .. ... 12 ounces
Tincture cantharides ... ... 75 minims.
Pure glycerin ... ... 12 drachms.
Cologne water ... .. 5 drachms.
Vanillin ... ... 1 grain.
Pulverized sandalwood ... ... 30 grains.

After being well mixed and shaken, allow the mixture to stand four days, then filter. Rub into the scalp daily.—*Revue de Thérapeutique.*

For Dandruff.

℞ Coumarin ... ... 1 grain.
Essence of musk ... ... 10 minims.
Benzoic acid ... ... 10 grains.
Olibanum ... ... 10 grains.
Oil of lavender ... ... 30 minims.
Jasmine pomade ... ... 2 drachms.
Rectified spirit ... ... 10 ounces.

Mix all together, shake well two or three times a day, and in four days filter.—*Chem. and Drug.*

THE ETIOLOGY OF "KALA AZAR": DR. GILES' CRITICISM OF DR. ROGERS' REPORT.

To the Editor, "Indian Medical Record."

Sir,—Through the courtesy of Surgeon-Captain Leonard Rogers, I am in receipt of his just published report on Kala Azar, and as the author of a previous report on the same subject, it seems more or less incumbent on me to state, for the information of the professional public, whether I see any reason to modify the views I am well known to hold on the subject.

I may say at once that, so far from seeing reason to recede from my original position, I find much in Dr. Rogers' work to confirm the opinion set forth in my original report, as well as since then in your columns, *viz.*, that the *increased mortality* in Assam, which is known to the natives of that province as "Kala Azar," is due to the effects of anchylostomiasis acting on a population which is, and has for generations been, continuously poisoned with malaria, but I fail to see any reason for believing that the malaria is any worse than it always has been, so that it cannot fairly be considered the primary cause of Kala Azar.

Although I do not propose to occupy your space by a detailed criticism of Dr. Rogers' report, it may be well to state shortly some of the grounds which compel me to refuse to accept his conclusion.

To begin with, Dr. Rogers falls into the common fallacy of imagining that the number of anchylostomes found P. M.; or, at any given stage of a case, by expulsion by vermifuges, is any index of the number present at some previous period.

This fallacy has been repeatedly exposed by myself, and more recent writers on the subject, and lies at the root of most of the misapprehensions regarding the disease.

From a consideration of the usual methods of inspection, it is certain that infection on a single occasion must be exceptional, as the number of embryos capable of being introduced by the usual vehicles on any single occasion cannot be large. On the contrary infection, as a rule, must be little by little, and continuous. Further, not only are new recruits continually joining the forces of the enemy, but *per contra* a certain number are continuously being detached, so that the question whether an individual becomes seriously diseased or remains healthy, depends on the relative number of recruits and desertions.

Since leaving Assam, though my material has been somewhat scanty, I have enjoyed far better opportunities of continuous observation of cases than was possible there, and I find that the spontaneous passing of living worms is by no means so uncommon as is generally supposed. Further, in a very interesting P. M. I made on a case at Saharanpur I found, low in the bowel, a considerable number of dead anchylostomes so altered by digestion that I failed to recognise them. They were, in fact, picked out by the Hospital Assistant who was helping in the dead-house, and it was not till he had produced several that I had any suspicion of their nature. On microscopical examination, however, I found they consisted of the limp chitinous envelope alone, with, in some cases, the buccal apparatus undetached. This digestion of the detached worms explains why they [illegible] overlooked after the administration of vermifuges, and makes certain a point I have long suspected, *viz.*, that there is a continuous passing out, as well as in, of parasites, and that if an uncomplicated case can be removed from its environment before fatal damage have been inflicted, it should tend to recovery. It accounts for the small number often found in cases long under observation in hospital, even when vermifuge treatment has been omitted, and explains completely the apparent want of proportion between damage done, and the number of parasites found which is so often observed.

Dr. Rogers lays great stress on Surgeon-Major Dobson's observations as to the commonness of anchylostomes in subjects apparently healthy.

It has always appeared to me that, to any one who gave the matter a second thought, no more thorough confirmation of the validity of my conclusions could possibly be furnished than these valuable and painstaking observations, and yet we are asked to believe that in districts where the opportunities of infection are so widely spread that nearly 80 per cent. of the apparently healthy harbour a greater or less number of the parasites, the number of persons seriously affected will be too small to affect mortality. Surgeon-Major Dobson, I am aware, is of opinion that these parasites are practically harmless, but in this matter he stands in the position of *Athanasius contra mundum*. Throughout the world in Egypt, Ceylon, and South America, wherever the disease is common amongst populations of low civilization, all other observers are agreed that the disease is a source of a heavy mortality. How much greater then will its effects be amongst the malaria-ridden people of Assam.

Surgeon-Major Dobson's position, however, though utterly untenable, is at least consistent and intelligible, but the same cannot be said for the views held by Dr. Rogers; for he not only admits the occurrence of fatal cases, but describes several observed by himself, and has further worked out a most ingenious and scientific method of differential diagnosis between the cachexia of anchylostomiasis and malaria respectively, which he admits are clinically with difficulty distinguishable. It is perhaps somewhat to be regretted that the test can be utilized by the few alone who happen to carry out with them a hæmoglobinometer, and have the leisure to use it, but this is inevitable with the more refined methods of diagnosis, and I fear that this method can have little beyond an academic interest to the practical physician in Assam.

How any one can maintain so preposterous a position that in regions where the anchylostoma is so common that few escape entirely, a large number should not be fatally affected, will, I think, appear unexplicable to all who reflect that elsewhere observers are unanimous as to the terrible fatality caused by anchylostomiasis, wherever early and efficient treatment is not only available, but eagerly sought for. That the disease is not now so frequently fatal among the carefully watched coolies in Upper Assam is by no means surprising, but a very different state of affairs existed in this respect, in the times before the true cause of an alarming mortality was discovered by Dr. Ruddock. The Assamese alone, according to Dr. Rogers, in some inscrutable way, nearly

always contrives to harbour just a sufficient number of anchylostomes to do him no harm *and no more*. While referring to the question of diagnosis between malarial and helmic anæmia, Dr. ROGERS takes me to task for pointing out that the color of the sclerotic is a good diagnostic test between pure cases of malarial anæmia and that due to anchylostomiasis, being yellow in the former and white in the latter. Dr. ROGERS goes to very unnecessary pains to show the test is not an absolute one, but every one who has passed beyond the text-book stage of existence knows no such signs have a really absolute value, and I still believe that this easily recognizable symptom will be of greater value to the practical physician in Assam, than the use of the hæmoglobinometer. Dr. ROGERS may yet discover that the indications of even such formidable instruments of research are liable to be misread.

Dr. ROGERS elsewhere suggests that the circumstance of my arriving in Assam during the cold weather led to "Dr. GILES' misfortune" (*sic*) in not recognizing malaria as the one and only cause of Kala Azar. Now whether we rate each other's conclusions as misfortunes or faults, I have little doubt that the fact that his study of the disease was mainly made at a time when the true cause of the enhanced mortality is masked by the seasonal prevalence of malaria, has much to do with the mistake into which he has fallen.

The cases he exclusively describes as Kala Azar, in point of fact, differ in no way from such as are met with in the daily practice of every Civil Surgeon who is stationed in any malarious part of India, and no one save those whose experience is limited to Assam or some other single locality, would regard such cases as in any way unusual or requiring any far-fetched theories of virulence and infectiveness for their explanation.

In this connection it is noteworthy that the only medical man resident in Assam, at the time of my own investigation, who had any extensive district experience outside Assam, supported my conclusions practically in their entirety. I refer, I need hardly say, to Dr. CAMPBELL, whose previous experience as Deputy Sanitary Commissioner in the N.-W. P. specially qualified him for the investigation of sanitary problems, and though he was subsequently disposed to assign a larger share to the malarial co-efficient than he did at the outset, it seems to me to be a matter of very little practical moment whether Kala-Azar is considered to be anchylostomiasis complicated in the greater number of cases by malaria, or paludal fever complicated in 70 or 80 per cent. of cases with anchylostomiases. The difference is rather verbal than real, but it seems to me personally to be better to consider anchylostomiasis as the primary condition, because it is this alone that has conferred infectiveness, and increased the normally high mortality of these unhealthy regions to a pestilential level.

All previous supporters of the purely paludal origin of Kala Azar saw that the infectiveness of the malady was a complete and fatal objection to their thesis, and accordingly labored to show that Kala Azar was not infectious, but here again Dr. ROGERS supports my observations; and those whom my arguments failed to convince on this point, are certainly left with no stand-point by the chapter Dr. ROGERS devotes to this subject in his report.

An ordinary man would indeed see at once that such a position is untenable, but Dr. ROGERS, like a medical Alexander, cuts his Gordian knot by announcing that Assamese malaria is infectious. In this he places himself at variance with not only the scientific, but the popular opinion of the entire world, and it appears to me that he advances no single fact or experiment wherewith to support this novel view, except that Kala Azar is undoubtedly infective, and that although he admits the anchylostoma to be astonishingly common in Lower Assam, he refuses to admit this to be the obvious explanation of the undoubted infectiveness of the condition. Dr. ROGERS, it is true, instances the fact that in Burdwan, some years ago, a somewhat similar condition prevailed to what is now known as Kala Azar, and that some who had to deal with the outbreak considered that it must be spread by infection. Anchylostomiasis is, however, as Dr. DOBSON has shown, very common in Lower Bengal also, and it is not unlikely that the Burdwan epidemic was due to the same combination of causes.

Bold as he is, Dr. ROGERS does not venture to suggest that all malaria is infective, as it is only the special breed which is found in Assam that requires modification to suit his special theories. He accordingly suggests that the malarial plasmodium has been so stimulated by the congenial environment it finds in Assam, that it has taken a leaf out of the bacterial library and increased its virulence till it has developed infectiveness. Now this characteristic of the bacteria is a very peculiar one and nothing of the same kind has, so far as I know, been discovered even among closely allied plants. The "*plasmodium*" *malariæ* is, on the other hand, a protozoan, and therefore in no way allied to the bacteria, and to pre-suppose any close similarity of their mode of action is to adopt an analogy of the most forced description; and while it would perhaps be going too far to say that it would be as fair to argue from a cow to a cowslip, it would certainly be equally so to predicate the life history of a noctiluca from that of a diatome.

Our knowledge of these protozoal blood parasites is absolutely in its infancy, so much so that a large number of species are, like Dr. ROGERS special Assam anchylostoma, supposed to be quite harmless. As one of those who every year believes less and less the harmlessness of parasites, whether animal or vegetable, I look upon their supposed harmlessness as merely due to our limited knowledge of the health and disease of the animals in which they are found. What little we do know, however, tends to the conclusion that, as in the case of other animal parasites, their harmfulness is governed by quantitative rather than qualitative considerations. Their rate of multiplication bears, *e.g.*, no proportion to that of the bacteria, and I cannot understand any one possessing any general knowledge of biology founding any argument from one to the other. Dr. ROGERS is at any rate, so far as I know, absolutely original in suggesting that the phenomena of increase and attenuation of virulence occur for the protozoon of malaria, but this is not the only point on which he possesses a certitude with regard to malaria, as yet unattained by the rest of the world. He states for example (p 200)—"We *know* (the italics are mine) that in the great majority of cases malarial fever originates from the inhalation of germs." Now however probable this

theory may be, I must submit that as yet we *know* absolutely nothing as to the exact route of infection, and that, to deal with the unsolved problems of malaria as Dr. Rogers does, is a mere unscientific exercise of the imagination which can only result in confusion and error.

The only argument advanced by Dr. Rogers, which requires any serious refutation, is that which he bases on the disappearance of Kala Azar from the tracts of country in which it was first noticed. How, he asks, could a disease such as anchylostomiasis disappear in this way? That it has actually disappeared I strongly doubt, though a noteworthy diminution of mortality may be accepted. It must be remembered however that emigration from infected sites from terror has taken place largely wherever Kala Azar has appeared, and although the fugitives will doubtless carry with them the worms that happen to be parasitic at the time within their own persons, they cannot carry with them the infection of the soil which alone can supply the new recruits requisites to conduct a case to a fatal termination. It will take some considerable period before the ova deposited by the transported parasites can effect the extensive infection of the soil of the new inhabited site requisite for the maintenance of cases. Moreover a little study of the literature of the subject should have taught Dr. Rogers that helminthiases wane and wax much in the same way as other epidemics.

But here, again, Dr. Rogers' facts afford the strongest possible argument against his theories. An infection capable of being communicated by the kind of intercourse that subsists between an European and his punkah-wallah, as instanced by Dr. Rogers, so far from being stopped by migration, would only be afforded opportunities for wider and more rapid spread. Against the spread of anchylostomiasis, on the other hand, short of the adoption of a complete and efficient system of conservancy, no measure can be effectual as migration, albeit the remote results of such a procedure may not be entirely satisfactory unless it be repeated as soon as there are signs of the soil of the new site being infected. To be thoroughly effectual, such migrations should be periodical, and never to sites already occupied by other village communities. Fortunately, however, a very short distance is quite as effectual as a long one, so that there need rarely be any necessity of going beyond the limits of the lands belonging to an average village.

If the methods of disinfection of sites, indicated in my report, were systematically adopted on each abandoned site, there is no reason why such a system of periodical migration and disinfection should not ultimately stamp out the disease, without the enforcing of any elaborate system of conservancy, which, though clearly the most obvious and rapid method of dealing with the disease, is, I frankly admitted in my Report, so much a counsel of perfection in the case of such a populace as the Assamese, as to barely come within the sphere of practical politics.

Another reason why a disease which spreads in the way anchylostomiasis does, should tend after a while to diminish, lies in the dying off of the unfittest. The explanation why, among the inhabitants of an inflicted site, certain individuals swallow embryos enough to kill, while others only take in a few, or escape entirely, can only be found in small differences of personal habits. To take an extreme case, *e.g.*, an European might live for years in a Kala Azar village and never come to harbour a single worm, and even among the Assamese there must be differences of personal cleanliness, for but for this, all persons living in an infected site would soon come to harbour an equally large number of the parasites. Those whose better habits have protected them during the earliest part of an outbreak, naturally are likely to remain healthy, and so an epidemic dies down.

Dr. Rogers, of course, labors under the disadvantages inseparable from the scanty opportunities he has enjoyed of studying tropical diseases.

The 2½ years he had served previously to going to Assam had been passed in charge of a native regiment where one's patients are all persons specially selected for good physique and stamina.

Had he had even this amount of experience of district work, I feel sure he would not have found it necessary to contrive such an entirely new and original etiology to account for the every-day malarial cases which alone he consents to class as Kala Azar.

There has been a general tendency in criticisms on my own report[1] to overlook the fact that throughout I assigned only a preponderating influence to anchylostomiasis, on the production of the complex chronic anæmia known as Kala Azar.

In summing up my conclusions as to the etiology of the disease at page 66 of my report I remarked :—

"As will be seen, I am far from asserting that any and every case that will be produced as *Kala Azar* is necessarily anchylostomiasis, or that cases of malarial cachexia are otherwise than very common, for such cases are very common now, always have been, and it will be long ere they cease to be so. All I wish to convey is that the *increased mortality* is due to the anchylostomiasis, and to no other cause, and hence the answer to the question propounded at the commencement of the section, must be that if we take *Kala Azar* to be anything brought as such, *Kala Azar* may be anything, but that if we confine ourself to the cause of the present pestilence, the reply is that it is anchylostomiasis.

If, as it is to be sincerely hoped will not be the case, the term *Kala Azar* be retained at all, it should, I think, be confined to the cause of increased mortality, which has given rise to the term. The preferable course, however, will be to classify our cases under the headings of ordinary medical nomenclature, and to avoid entirely the use of such misleading terms as Kala Azar and Beri-Beri."

Pure cases of either cachexia are indeed the exception, and in many it is difficult to say which preponderates, but of the two main causes, anchylostomiasis is communicable and transmissible only by infection, while malaria is a disease of localities, or, to use the customary term, "climatic." As Kala Azar is undoubtedly communicable, it appears to me that this clearly indicates anchylostomiasis as the primary condition.

A further practical consideration is this :—We know practically nothing of the exact methods by which the malarial parasite gains access to its victims, and no one has as yet been able to suggest any method of protecting a person resident in a malarial region from its attacks.

On this other hand, the new and complete life-history of the free stage of this worm, which I was able to work out, makes our knowledge of its methods of access absolutely certain, and this knowledge secures us that it can be stamped out with complete certainty by efficient conservancy, and can be dealt with less completely by migration, disinfection of sites and other accessory measures which I suggested.

It seems therefore that it would be better to attack the enemy we know we can deal with, than to concern ourselves at first about its ally of whose strategy we are as yet ignorant, and against which at present we have no methods of defence.

At present it appears to me that the most promising line of investigation would be to try the experiment of putting into effect the various practical recommendations that have, from time to time, been made; as should they prove effectual, no better proof of the validity of the conclusions on which they are based could well be desired.

It would not be difficult to interleaf Dr. ROGERS' report with a detailed refutation of his views, but I fear I have already exceeded the limits of the Editor's available space and perchance of my readers' patience. I may add, however, in extenuation, that I do not propose to be drawn into any prolonged discussion on the subject as what I have said is, I think, quite sufficient to establish the entire untenability of Dr. ROGERS' position, and I doubt if any good purpose is ever served by a prolonged exchange of journalistic amenities. Dr. ROGERS' report is, however, so much more occupied with dealing with what he considers my errors, than in establishing his own case, that I feel sure that those who are at the pains of reading it, will confess that I could hardly do less than make as complete a reply as can be condensed into a single letter "to the Editor."

Yours &c., G. M. GILES, M.B. Lond., F.R.C.S. Eng.
Surgeon-Major, I. M. S.

SITAPUR, *15th December 1897.*

THE WRONGS OF MILITARY ASSISTANT SURGEONS. HOW THEY ARE TO BE RIGHTED.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—I agree with all that "Truth" has written in your issue of 16th November 1897, but fail to see how the Director-General, I. M. S, is to blame. He may be and probably is, aware of many of the grievances of the Assistant Surgeon class, but I feel quite sure he is powerless, unaided to remove them. I cannot give satisfactory reasons for the statement I have made, and can only say it is my belief that had he the power to remove the grievances of Military Assistant Surgeons, they would not now exist. If the statements made regarding the excessive work of Military Assistant Surgeons are true, it should not be difficult to prove them, and once the tales of woe poured out in your columns are proved before a competent court to be true, the grievances they voice would almost certainly disappear. At present the Director-General has probably not received a single report from competent authority, *i.e.*, a Military Court of Enquiry; or A. M. S. Officers, that Military Assistant Surgeons are over-worked. If Military Assistant Surgeons, who are in a position to do so, will carefully prepare a statement of a day's "work done" in the ordinary course of hospital routine, noting each and everything done, and the time it takes to do; and if from these statements (the truth of which enquiry would prove, or disprove,) it is found that Military Assistant Surgeons are required to do more work than men can perform, the inference is obvious, *the sick British soldier is neglected.*

Prove to the Military Commander that the men under his control are neglected while in hospital, and a full and searching enquiry into the working of Station Hospitals follows as a matter of course. Till this is done, no results can be expected from letters to the *Indian Medical Record* or elsewhere, if plain-spoken expressions of opinion by the Editor, *I. M. R.*, or letters exposing wrongs were of any use, they would have answered their purpose ere this. The Director-General can only act on reports received from officers of the A. M. S It is the expressed opinion of some of these officers that the Assistant Surgeon in a Military Hospital has not too much to do, and that his grievances are imaginary, this being so, there is no sympathy for the Assistant Surgeon, he is looked upon as an imposter, and his statements disregarded. Either this class of A. M. S. Officer is right or he is wrong. If right, the Assistant Surgeon is an imposter and deserves kicking, if wrong, the A. M. S Officer knows very little of the hospital for which he is responsible, or he is a deliberate liar,—that he is the latter I do not believe. It is easy for an A. M. S. Officer, even after some years in India, to know but little of the working of the hospital under his charge, everything is done for him, he signs his name to various papers, sees the morning sick, and goes home with the comfortable feeling that he has done his work and will no more that day be worried. If he is what is termed a good fellow, he appreciates the work done by his assistants, and, far as is possible in a Station Hospital, his subordinates are happy and content; for it takes but little to satisfy men accustomed from boyhood to scant courtesy and neglect. If he be of any of the following types, said sometimes to occur in the A. M. S. Tyrant, Bully, Shirker of work, or all combined, life in his hospital becomes a curse to the Assistant Surgeons employed in it. The junior Commissioned Officers do not apparently realise that they are responsible for anything beyond prescribing for the sick soldier; it never apparently strikes them when they complain of over-work with 80 or 100 patients to prescribe for that their Assistant Surgeons are doubly overworked, as they not only accompany them round their wards and write their prescriptions, but also compound, dispense, and serve out the medicines ordered, take temperatures, see to the bedding, clothing, diet, and extras of the patients,—in fact attend to the innumerable petty wants of 80 or 100 sick men. Yet it is the expressed opinion of some A. M. S. Officers that Assistant Surgeons are not over-worked. I believe that many gentlemen among the young officers of the A. M. S, have yet to learn that they have unconsciously lent themselves to a system of abuse, which, had they realised, they would have scorned. How can an officer of the A. M. S. know that his Assistant Surgeon is over-worked? The Assistant Surgeon dare not say he has too much to do, such a statement can be construed into a military crime against discipline; he dare not say that with so many duties to perform the sick soldier is of necessity neglected, military

disciplined, as maintained in Station Hospitals here the way. He must just do his best; if the soldier suffers the Assistant Surgeon knows he is helpless to prevent it, and he further solves his conscience by saying his superior officer is responsible. The S. M. O., when of the tyrant class; never sees what work has been done, his object is to discover petty omissions, and to hold the threat of a bad confidential,—that curse of the service,—over a man for having neglected to have a soldier's boots brushed, or for having failed to see a cob-web on a skylight. The shirker of work adds to the burdens of his subordinates by elaborate rules all made with the object of minimising trouble to himself in the performance of his small share of work, *i.e.*, seeing the morning sick. In some Station Hospitals a written statement of the case of each detained man must be made by the W. M. O. on duty for the information of the S.M.O. to enable him to prescribe for fresh sick patients without the trouble of questioning them (on occasions there are from 50 to 100 men detained). The Assistant Surgeon on duty, with all his other work to do, cannot in these cases give the result of his personal observation; he must question the patients, and write what they say, not what he has seen. Such statements answer no useful purpose, they simply add to one man's work, and diminish the work of another who has already very little to do, and who is too lazy to question the soldier about his illness. A skulk introduces the system into a Station Hospital, and it is perpetuated, because military discipline forbids remonstrance against any order. Military discipline requires unreasoning obedience, and applied to military matters is suitable, but the power military discipline gives when vested in quasi-military men, becomes as dangerous as an edged tool in the hands of a child.

In some Station Hospitals an Assistant Surgeon has from 100 to 150 sick under his care, and it is considered necessary to appoint two medical officers to prescribe for this number; this being true, there can be no doubt that there are too many Surgeons, and too few Assistant Surgeons for the work. The care of 80 sick soldiers necessitates at least two hours' work on the part of the Assistant Surgeon, to take temperatures, and see to the general condition of things (not excepting the polishing of boots, and the dusting of sky-lights), before the arrival of the Surgeon in charge of the ward. The first issue of medicine is also included in the work done before the Surgeon's arrival, the Assistant Surgeon then goes round with the Surgeon, and it is not too much to suppose that it takes two hours to see 80 cases of sickness among soldiers, if the work is conscientiously done; writing up bed-head tickets takes up half the time. When the Surgeon has finished, his Assistant has been four hours on his legs; the Surgeon has now finished for the day, and goes home to return again in the evening (?) to ask if anything is wanted. If a hard-working man with social instincts, he may go into the Surgeon's Office, and smoke a cigar, and write cases daily for half an hour, if not he arranges that with the help of his Assistant Surgeon, the cases are written in the wards. He finishes his work in 2½ hours. This is the ordinary routine of work of a junior A. M. S. Officer. [Compare this with the statement made by "Surgeon, Captain A. M. S." in the *I. M. G.* for 1st December 1897. Under exceptional circumstances I have seen an A. M. S. Officer work all day.] When finished with the Surgeon the Assistant compounds and dispenses the medicines for 80 or 100 sick; one hour's work at least if carefully done, he arranges that dressings, bandages, &c., are properly applied, he serves out the fresh medicines ordered at the morning visit, and sees that the wines, &c., ordered for his patients reaches them, all this work takes at least another hour. Allowing that he started work at six o'clock by twelve o'clock he has done six hours' work, and might, one would suppose, be at liberty to rest, and have his breakfast; not so however he has to parade his discharged men and wait about the Hospital till the S. M. O. goes home. The S. M. O. usually in the winter comes after having had his breakfast, and is not particularly anxious about when he leaves, provided always he can return home for lunch. To prevent possible inconvenience to this august personage, men who have worked hard for six hours must hang about the office in case they are required to answer some question about men in their wards. By this time the second issue of medicine is due, and the Assistant Surgeon must either serve it out, or entrust the work to an A. H. N. corps coolie; if he does it himself he cannot go home till 2 o'clock. At four o'clock the third issue of medicine is due, and he must return to serve it out, take temperatures, and acquaint himself with the condition of fresh admissions and serious cases for the information of the Surgeon, who does not usually go round his wards, but expects his Assistant Surgeon to inform him of any serious case. This takes at least three hours to do. Thus far we have followed the Military Assistant Surgeon in the ordinary routine of work, when not on duty, and find he has eleven hours of work a day. We will take for granted that where military discipline reigns supreme, he did not delegate the second issue of medicines to a coolie, eleven hours' work excludes clerical work, which in every Station Hospital is exacted from the Assistant Surgeon employed in the wards; the amount varies, but clerical work (though forbidden by regulations) is exacted from all. Were Station Hospitals sufficiently equipped with appliances (thermometer, measure glasses, &c.) and menial servants, an Assistant Surgeon could, by working eleven hours a day, attend to 80 sick soldiers. Under the regulation in force, with the added terrors of a bad confidential report, the responsibility for everything begins and ends with the Assistant Surgeon. The A. H. N. Corps man, knowing the condition of things, wilfully or accidentally fails to carry out an order, and the Assistant Surgeon dare not report him. Should he be unwise enough to do so he is told "Why did not you see it done? You are responsible." Fragile articles, such as measure glasses and thermometers, if broken while in use, have to be paid for by the Assistant Surgeon. If he objects, military discipline, and the threat of a bad confidential soon bring him to his senses. With insubordinate and irresponsible menial servants, and insufficient appliances, the work cannot be done under 12 hours: add twenty or thirty sick to the number requiring attendance, and the work cannot be done, even if a man were able to work for 12 hours day after day in an Indian climate. When to the duties, already enumerated, are added those required from the orderly W. M. O. the working of the Station Hospital system is proved faulty. If Military Assistant Surgeons are at any time required to attend to the wants of from

50 to 150 sick soldiers, the men under their care must be neglected, for no man can do the work expected daily from a Military Assistant Surgeon. With the facilities afforded them by the "Indian Medical Association," and the *Indian Medical Record*, it should be easy for Military Assistant Surgeons to prove these statements. If it is once proved that Military Assistant Surgeons are over-worked, *and that the sick soldier suffers in consequence of their over-work*, and that the highly paid Commissioned Medical Officer ordinarily does nothing towards the care of the sick beyond prescribing, and contents himself with issuing orders, which he should know cannot be satisfactorily carried out owing to there not being a sufficient number of Assistant Surgeons, a change of system must follow. The Editor, *Indian Medical Record*, may if he considers it necessary, call the attention of the Military authorities to this letter, and produce the writer as evidence; for obvious reasons I ask him not to divulge my name till Government has ordered an impartial enquiry by competent Military,—not *Medical* Officers.

Yours &c., M. A. S.

PESHAWAR, *9th December 1897*.

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ARMY STATION HOSPITALS, HOW THEY ARE WORKED.

III.—DISCIPLINE.

TO THE EDITOR, "INDIAN MEDICAL RECORD"

SIR,—This is a subject that has to be approached with caution, because if there is one thing more than another that distresses the Army Medical Staff Officer, it is the discipline that obtains in Station Hospitals. The opinion among them is general that (1st) discipline is still a desideratum; (2nd) that the Assistant Surgeon class are, as a body unable to maintain it as it should be; (3rd) that the cause of this inability is mainly due to the circumstance that the British soldier is of too imperious a nature to be controlled by a body of men, who are for the most part of mixed descent and not the "regulation color." Let us, if we can, impartially examine these opinions and see how far they are the outcome of facts.

In the days of Regimental Hospitals complaints against breaches of discipline were of rare occurrence. Some will allege because then there was a Hospital Sergeant to maintain it; but any man, be he officer or subordinate, who has worked under both systems, will alone be best able to discuss the question thoroughly. In considering a case of breach of discipline, it is necessary first to know what the nature of the crime is. In Station Hospitals it is a crime for a man to spit on the floor, to smoke in bed, to smoke in the wards, to be in possession of money or other articles not obtained through an order of the medical officer; to go to the dinner-table minus his coat, to go downstairs or to the lavatory without his boots, It is a crime to be out of bed in an adjoining verandah after tattoo, never mind what the thermometer registers, &c. Now these restrictions are all salutory no doubt, but in asmuch as many of them demand an instantaneous change of habits, patients consider them vexatious, and evasion of them justifiable. The Hospital Sergeant of former years only took cognisance of crime—barrack-room crime I may say. Except when clerical work kept him to his desk, he was not tied to the hospital; and, as a matter of fact, was never on the premises for the best part of twenty-four hours; so I think he may justly be discarded as a factor in the chief maintenance of discipline. Hospital crime was rare, because the hundred-and-one restrictions placed on the patient now did not exist. The Medical Warrant Officer remained then, as he does now when on orderly duty, all day on the hospital premises. Cleanliness and order were maintained in Regimental Hospitals by an adequate staff of servants, a few European orderlies—private soldiers with no authority—and, the word influence exercised on the soldier patient by the Hospital Staff of officers and subordinates to whom he was in most instances personally known. The "Doctor" worked in harmony with his assistant perhaps for years, and both were in touch with officers and men of the corps. But now all this is changed, and the cry goes up, for the blessings of discipline. We are provided with excellent rules if they could but be enforced; but where is the agency to enforce them. I say it in all seriousness that no single man, whether he be an Eurasian Assistant Surgeon or a full-blooded European Brigade-Surgeon-Lieutenant-Colonel, could by his mere presence in the hospital with multifarious duties to attend to, and be here there and everywhere, present the commission of each "crimes" as I had enumerated above. And let me call attention to the fact that, this in the perpetration of such misdemeanours only that discipline is lacking in Station Hospitals. Crime of a nature that would receive serious cognisance from a combatant officer is as rare to-day in our military hospitals as ever. If there is a change, it is for the better, thanks to the enlightened ruling enacted with a view to lighten the restrictions of a soldier's life. The fact is, that the unsatisfactory state of things in a Station Hospital is primarily due to the discontent of the Army Staff Officer, who in nine cases out of ten brings only a half-heartedness to his work. In deploring the absence of that discipline that he so much desires to see established, medical officers are themselves much to blame in their lack of co-operation in striving to maintain it. Any circumstance that bring the Army Medical Staff Officer in relation to his brother combatant officer that is not of a professional nature, is sedulously avoided by the former, from the sheer sensitiveness engendered in his nature by his anomalous status in the army; hence the infraction of rules in hospital by patients when detected by medical officers themselves are noticed, as matters that call for censure or reproof, not of the delinquent, mind you, but of the Assistant Surgeon. Patients are exonerated from responsibility; even Non-Commissioned Officers in hospital, who, according to Army Regulations are reponsible for the maintenance of discipline, in hospital as much as they are in the barrack-room, are never questioned. The Army Medical Staff Officer shirks the responsibility himself of taking action called for, because it may involve his presence in the regimental orderly room, or a correspondence with combatant officers. The Assistant Surgeon is expected to do the dirty work, and all of it. TOMMY ATKINS, with the eye of a soldier, sees this; he knows too that the man of whom so much is expected, cannot find time for much detective work, and

hospitals [illegible] the opportunities afforded of [illegible] rules. The Assistant Surgeon (not from fear, but from a worthier motive simply) shrinks from harassing work, when infringement of rules is not perpetrated by open defiance of authority.

The desire to be popular with the soldier exhibited mostly by junior medical officers, would be admirable, if it were not, as it is too often, purchased at the sacrifice of duty, or the pecuniary interests of the State. I have referred to the ignoring of individual responsibility of patients for the maintenance of discipline, order, cleanliness, &c., as if they were children, though outside a hospital nobody thinks of indulging T. A. to that extent. Examine the diet-sheets of our Military Hospitals, and you will find "extras" lavishly prescribed, not because the case absolutely needed them, but because they were asked for, or there was "no harm" in prescribing them. This does not refer to "supplementary extras," because ordering those entails an entry in the case book, and a medical officer with forty or more patients in his charge hesitates to fill his case book with entries of trivial cases that have no particular interest. A volume could be written, giving instances showing the utter disregard medical officers evince touching the individual responsibilities of patients, but one will suffice. It is an extreme case, but its very extremity exemplifies how far matters may be pushed. An insane patient *with four orderlies* over him, shot himself dead *with a rifle taken from the guard*. The Warrant Officer on orderly duty was considered culpable and arrested. It is needless to say he was acquitted by combatant officers with a knowledge of something higher than hospital discipline. Here the patient was not responsible, but the orderlies and the guard were, but this very circumstance renders the charge brought against the Warrant Officer and the action taken against him (he was two months under arrest) one of a nature to make us ask, under what manner of discipline are our hospitals ruled.

The Officer of the Army Medical Staff, as we all know, is a man with a grievance, but in the strenuous endeavours he is making to have that grievance redressed, I hardly think it judicious of him to make present conditions worse than they might be. He is not content with Station Hospitals as at present organised; he wants men of the Medical Staff Corps for subordinates. I see nothing unreasonable in this: he is used to such subordinates everywhere but in India; and it occurs to many of us in both Commissioned and Warrant ranks that the question of re-organising our Station Hospitals will have to be faced before long, if we do not mean to wait for total collapse. We are on the brink of it now. If in the military organisation of India, as it stands at present, the services of the Subordinate Medical Department *can* be dispensed with, if it would be a measure of economy to wipe it off the face of the Army List and bring in the Medical Staff Corps—why not do this? Discipline would be better maintained, because we should have then a staff of orderlies and Non-commissioned Officers instead of one Warrant Officer required to be ubiquitous, and there would always be on duty a Commissioned Medical Officer on the premises of the hospital. It will be better than the present make-believe state of affairs: there will be no expensive superfluous [illegible]

If, added to this, medical officers [illegible] invested with the power to punish patients for hospital crime, I think we will have advanced one step further in securing an ideal order of things.*

In concluding this letter the reflection occurs to me that, in the large Civil Hospitals of the Presidency Towns, where rules for the maintenance of cleanliness and order—I won't say discipline—are at stringent if not more so than those regulating Station Hospitals, matters progress very satisfactorily. And this result is attained by nurses of all shades of color. How? The nurse is always present in her ward, delinquents are brought by her to the notice of the physician or surgeon and punishment awarded: it is generally dismissal from hospital. Unfortunately this can't be done with T. A., more's the pity.

Yours &c., Sylvan Idle.

GRIEVANCES OF CIVIL HOSPITAL ASSISTANTS.

To the Editor, "Indian Medical Record."

Sir,—It is a patent fact that the grievances of that useful class of Subordinate Medical Officers—the so-called "*Hospital Assistants*"—a designation which is at least a misnomer—are manifold and require URGENT and generous consideration at the hands of the Government. Several important editorials, comments, &c., about these have, from time to time, appeared in the columns of our valuable journal, the '*Record*'; and the "Indian Medical Association" was also good enough to send in a memorial to the Supreme Government on our behalf as regards some reasonable improvement in our pay, status, &c. It is a long time since we were asked to wait for a reply from Government which, it was supposed, would be an encouraging one, but far from it, during this period of patient and anxious expectation several of our brother Hospital Assistants have carried their hopes (of seeing better and happier days) to the grave. It is time enough that we waited, and we do not know what good, if any, will come by our waiting "ad infinitum;" for hope deferred maketh the heart sick. I beg to request therefore that the Indian Medical Association may be so good as to leave no stone unturned as regards the betterment of the prospects of the poor *over-worked* and *under-paid* Hospital Assistants by sending a gentle reminder to the Government. The hardships and difficulties to which these poor unfortunates are subject are more to be imagined than described. The zealous and earnest way in which they work under the most adverse circumstances, as in famine and plague, is a sufficient indication of how loyal and obedient they are. They are always to the front in epidemics, *e.g.*, cholera, plague, &c. They are ever ready to do their duty even at the risk of their lives.

It may not be out of place for me to suggest that all the Editorials, Comments, Correspondence columns, &c., of the *Indian Medical Record* touching on our grievances may be collected from 1st January 1890 up to date, and printed in a pamphlet form at the *Record* Press. Such a

* Since writing this, it has been remarked to me that, instead of an economy being effected by the measure, the reverse is most likely to happen, because the responsibilities of the A. M. S. Officer would be very much enhanced: whereas now [illegible] there would need to be two with the rank of the Medical Staff Corps as subordinates.

pamphlet, besides being invaluable to each and every Hospital Assistant, might advantageously be sent up to the authorities when redress of the grievances is requested again; and all the Commissioned Officers of the I. M. S., who are in sympathy with us, would be glad to receive a copy of it and do their utmost to ameliorate the hard lot and wretched plight of their poor and deserving, though unfortunate, subordinates. But then a question arises as to the source of the funds from which the cost of its publication and circulation is to be met. This is not a hard nut to crack, because the cost of the undertaking will not probably exceed five or six hundred rupees. There are over a thousand Hospital Assistants in India, and that means something like half a rupee or so will have to be contributed by each which, I fervently hope, will be acceptable to all concerned for their own amelioration; even the most selfish, if any, among us, will not, I think, grudge the payment of this amount. The publication of a pamphlet on the lines indicated is a desideratum, and the time for such a publication need no longer be delayed. All Hospital Assistants, whether subscribers to the *Record* or not, will, it is hoped, kindly take this as an earnest appeal for co-operation and mutual help. As to my identity, dear Editor, I herewith enclose my card and wish you and your numerous readers a happy and prosperous new year.

Yours &c., "MULTUM IN PARVO."

MADRAS, *23rd December 1897.*

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MORE ADVERTISING QUACKS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The following advertisement finds a prominent position in *The Morning Post*:—

MEDICAL OPINIONS.

Upon Blindness, Deafness, &c.,

All Diseases

OF THE

Eye, Ear, Nose, Throat, &c.

All symptoms which are treated on the Latest and most Modern System of Practice.

DR. ENGLER.

Oculist, Aurist, and Specialist, has arrived from Europe And has paid his first professional visit to

DELHI,

And may be consulted daily at the Northbrook Hotel,

From 8 to 12 A.M., and from 1 to 5 P.M.

Here are quoted a batch of "puffs" and then the advertiser adds—

"DR. ENGLER will not visit the Mofussil Stations, except by special arrangements and for a short period."

Surely men like this need show up, and the penalties of a Medical Act are called for in just such cases.

Yours &c., M. D.

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RESEARCH IN INDIGENOUS DRUGS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Will you kindly give me the following information and oblige. Do you know of any laboratory or institution for the investigation of the medical properties, physiological action, &c., of the native drugs of India in Calcutta or any other part of India. If there is such an institution, can you give me some information about it. Is there any institution where medical books in Sanskrit and other Oriental languages are translated and studied? Or if you know of any medical men who specially study the subject?

Yours &c., RUSTOMJI ADSARJI.
Medical Officer, Rajkot State.

RAJKOT, *22nd December 1897.*

Book Review & Medical Trade Notices.

A HAND-BOOK OF SURFACE ANATOMY AND LANDMARKS.

BY BERTRAM C. A. WINDLE D. SC., M.D., M.A. Dublin. And T. MANNERS SMITH, M.A. Camb., M.R.C.S.

(Publisher: H. K. LEWIS, 136 Gower Street, London, W.C. Second Edition. Price 3*s* 6*d*.)

THIS handy little book of 143 pages is one of the most useful helps that the medical student or the practitioner can possess to aid him in a practical and intelligent understanding of regional anatomy, as well as clinical surgery and clinical medicine. It is perfectly illustrated, and cleverly designed in all the arrangement of its sections and the literary descriptions of the same. We strongly commend this booklet to the medical profession of India.

VINOLIA PRODUCTS.

(BLONDEAU ET CIE, MALDEN-CRESCENT, LONDON, N.W.)

ACCORDING to our examination the Vinolia preparations consisting mainly of articles for toilette use offord distinct evidence of the endeavour of these manufactures to use only innocent yet effective ingredients. This s the only point which interests us in regard to such preparations. We have not found a single injurious constituent in any one of the new preparations recently submitted to us. An enormous advance has been made in the preparation of soaps, hair-washes, powders, shaving materials, &c., during the last twenty years, a fact which has contributed not a little to the comforts and sanitary conditions of modern life. Of new preparations recently submitted to us we may mention three soaps respectively entitled "buttermilk," "lilac," and "heliotrope," each of which carries its own distinctive yet delicate scent. They contain nothing but bland soap and are free from any resinous matters or trace of free alkali. Vinolia violet powder is very finely divided and in addition to this desirable condition is a harmless antiseptic. Another preparation worthy of notice is the Vinolia dry hair wash. It is of course a spirituous fluid which yields on evaporation, a delicate lather but without stickness. It is satisfactory to to find that articles of the quality described may be obtained at quite a moderate figure.

SOLOIDS FOR USE IN GYNÆCOLOGY.

(BURROUGHS, WELLCOME AND CO., SNOW HILL BUILDINGS, E. C.)

THE following formulæ have recently been adopted by Messrs. Burroughs, Wellcome and Co., in soloid form. 1.

Sodium biborate compound, each soloid containing 20 grains of sodium biborate and 10 minims of tincture of opium. 2. Alum compound, each soloid containing 15 grains of zinc sulphate and 15 grains of alum. 3. Zinc and tannin compound, each soloid containing 5 grains of sulphate of zinc, 10 grains of lead acetate, 2 grains of extract of opium, and 1 grain of tannin. In this last formula obviously the zinc sulphate will, when the soloid is placed in water react with the lead acetate to form acetate of zinc in solution and a precipitate of sulphate of lead. The resulting zinc acetate would then yield a zinc tannin compound. The object of these soloids is to enable the practitioner to prepare solutions for irrigations in gynæcological practice.

Government Medical Gazettes.

GOVERNMENT OF INDIA.

The services of Surgn.-Capt. W. H. Gray and Surgn.-Capt. A. G. Heudley are replaced temply. at the disposal of the Mily. Dept. from the dates on which they respectively made over charge of their duties in the Cenl. Prov.

First class Hosp. Asst. Pirbhu Lal, Tonk Raj Dispy., was pensioned from 18th May 1897.

The following transfers have been made in the Estab. of Civil Hosp. Assts. in Rajputana :—

Mirza Mahomed Beg, from Bikanir Raj Service to Native States Reserve List. 15th Aug. 1897.

Rahmatali, II, from Native States Reserve List to Kotah Raj Service, 1st July 1897.

Waizul Huq, from Marwar Raj Service to Kotah Raj Service, 9th July, 1897.

Sadashivrao Gokhale Ramchander, from Native States Reserve List to Marwar Raj Service, 30th July 1897.

Zahur Peer, from Native States Reserve List to Marwar Raj Service, 25th July 1897.

Issar Pershad Chakravarty, from Govt. Reserve List to Marwar Raj Service, 1st Aug. 1897.

Hosp. Assts. Ahmad Khan and Sital Pershad were apptd. 3rd class Hosp Assts. and placed on the Native States Reserve List from 18th Sept. and 1st Oct. 1897.

Hosp. Asst Habibur Rahman, Mandana Dispy., in Kotah, died 9th March 1897.

The following Hosp. Assts availed themselves of privilege leave :—

Polo Ram, Bhagwan Dass Hosp., Bikanir, from 18th July to 18th Aug. 1897.

Shiveshanker Dayashanker, Northern India Salt Revenue Dispy., Pachbadra, from 2nd Sept. to 15th Sept. 1897.

Jowala Pershad, Western Rajputana States Resy. Hosp., from 18th Sept. to 25th Oct. 1897.

Lukhpat Rai, Sirohi Dispy., from 8th Sept. to 25th Oct. 1897.

Madan Lal, Deolia Dispy., in Ajmere, from 4th Sept. to 3rd Oct. 1897.

Hosp. Asst. Mahomed Zahurul Huq, Jeypore Raj Service, privilege leave for twenty days from 17th Dec. 1896.

Hosp. Asst. Raja Ram Singh, Lansdowne Hosp., Oodeypore, one month's privilege leave from 4th April 1897.

BENGAL GOVERNMENT.

Asst. Surgn. R. F. Knight, Asst. to the Supdt. Med. Coll. Hosp., to act as Apothecary to that institution, from 4th Oct. 1897.

Asst. Surgn. Amulya Chandra Champati, Krishnaghar Charitable Dispy., held med. charge of the Civil Station of Nadia from 20th Aug. to 31st Oct. 1897.

Asst. Surgn. Kherode Chandra Chowdhuri, Krishnaghar Charitable Dispy., held med. charge Civil Station of Nadia from 1st to 2nd Nov. 1897.

Asst. Surgn. Amulya Chandra Champati, Khrisnaghar Charitable Dispy., to have med. charge Civil Station of Nadia, from 3nd Nov. 1897.

Asst. Surgn. C. A. R. Haegert to be Inspg. Med. Officer, Mairwa, on the Bengal and N.-W. Ry.

Surgn.-Major. F. A. Rogers to be Inspg. Med. Officer Chakradharpur, on Bengal Nagpur Ry.

Asst. Surgn. C. R. W. Brancroft, Presy. Genl. Hosp., Calcutta, to act as Asst. to Surgn. Supdt., Presy. Genl. Hosp., until further orders.

The services of Asst. Surgn. F. Victor, Offg. Asst. to the Surgn. Supdt. Presy. Genl. Hosp., Calcutta, are replaced temply. at the disposal of the Govt. of India, Home Dept.

Asst. Surgn. Khagendra Nath Sen, Bettiah sub-div. and dispy., leave for one month and 25 days, from the date he avails himself of it.

Babu Daitari Dass, clerk attached to the office of the Civil Surgn. of Cuttack, has been dismissed from the service of Govt.

Asst. Surgn. Suresh Chandra Banerjee is re-apptd. as Asst. Supdt. of Emigration, Raniganga and Asansol, from 2nd Dec. 1897.

Asst. Surgn. Suresh Chandra Banerjee did supy. duty Raniganga Dispy., from 31st Augt. to 21st Sept 1897, and at the Presy. Genl. Hosp., from 22nd Sept, to 24th Nov 1897.

PUNJAB GOVERNMENT.

Hosp. Asst. Kahan Singh reported himself to the Civil Surgn., Rawalpindi, for genl. duty, 15th Dec. 1897.

Hosp. Asst. Lal Singh, from Jail Hosp., Ferosepore, to Murree Dispy., Rawalpindi dist., 27th Nov. 1897.

Hosp. Asst. Ghasita Mal Horra, from the latter to the former institution, 7th Dec. 1897.

Hosp. Asst. Usman Ghani, Police Hosp., Ferosepore, held charge, Jail Hosp., from 15th Nov. to 7th Dec. 1897.

The services of Hosp. Assts. Labha Mal and Mathra Das being no longer required by the Govt. Centl. Prov. they reported their arrival at the office of the Inspr.-Genl. of Civil Hosps., Punjab, Lahore, 14th Dec. 1897, and were apptd. to do genl duty, Mayo Hosp., Lahore.

Asst. Surgn. Brij Lal, Ludhiana Civil Hosp., was placed on special plague duty at Kalka, from 28th Nov. to 6th Dec. 1897.

Hosp. Asst. T. Franklin, doing genl. duty at Delhi, for special plague duty at Wazirabad, Gujranwala dist., from 8th Dec. 1897.

Hosp. Asst. Husain Shah Relieving Hosp. Asst. N.-W. Ry, was placed on special plague duty at Khan Khanan, Jullundur dist., 14th Dec. 1897.

Hosp. Asst. Gurmukh Singh was apptd on special plague duty at Khan Khanan, Jullundur dist, from 11th Dec. 1897.

Hosp. Asst. Amir-ud-din reported himself to the Civil Surgn., Jullundur, for genl. duty, 16th Dec. 1897.

Hosp. Asst. Bahadur Shah, Gurdaspur Dispy., was apptd, as a tempy. measure, to the Batala Dispy., from 10th Dec. 1897.

Hosp. Asst. Sundar Singh, doing genl. duty at Umballa, to Khanpur for special plague duty, 5th Dec. 1897.

Hosp. Asst. Bahadur Shah doing genl. duty at Lahore, to the Gurdaspur Civil Hosp., 3rd Dec. 1897.

Hosp. Asst. Bahadur Shah did genl duty at Gurdaspur from the 30th Nov. 1897, and from 1st and 2nd Dec. 1897

CENTRAL PROVINCES GOVERNMENT.

The services of Hosp. Asst. Pratab Singh and Yado Rao are placed at the disposal of the Direc.-Genl. I.M.S, for plague duty at Ajmere.

Hosp. Asst Govind Deo Rao is posted to the Baloda Branch Dispy, Raipur dist.

Hosp. Asst. Govind Deo Rao Baloda Branch Dispy., Raipur dist, to the med. charge Baloda Poor-house.

Hosp. Asst. Ashfaq Hussain Jail and Police Hosps., Saugor, three months' privilege leave from 15th Nov. 1897.

Hosp. Asst Lachhman Pershad to the Jail and Police Hosps., Saugor.

Hosp. Asst. Muhammad Umar Khan to do duty under Civil Surgn., Narsinghpur.

Hosp. Asst Muhammad Umar Khan doing duty under Civil Surgn. of Narsingpur, to the Jail and Police Hosps., Narsinghpur.

Hosp. Asst. Muhammad Hanif to do duty under Civil Surgn. of Nagpur.

Hosp. Asst. Ramsahai, on famine duty, Bhandara dist, to Nagpur for plague duty.

Hosp. Asst. Ashutosh Chatterji to do duty under Civil Surgn. of Nagpur.

Hosp. Asst. Baliram to do duty under Civil Surgn. of Nagpur.

[illegible] plague duty at Burhanpur [illegible] Oct. 1897, and at Khandwa from 23rd Oct. [illegible] Nov. 1897.

[illegible] privilege leave is granted to Hosp. Asst. Vijia [illegible], [illegible] Zemindari Dispy., Sambalpur dist.

Hosp. Asst. [illegible] Ramchandra, Rai Sahib, Itwari Branch Dispy., three months' privilege leave.

Hosp. Asst. Girma Zingu, Hende-Bansilal Dispy, to the [illegible] Branch Dispy.

Hosp. Asst. Waman Ramchandra, on plague duty at [illegible], to Mayo Hosp. Nagpur.

Hosp. Asst. [illegible] Rao to Pathurla Branch Dispy.

Hosp. Asst. [illegible] Lal to [illegible] Branch Dispy.

Hosp. Asst. Ram Krishna Balwant, Famine-Relief Camp Betul dist., to [illegible] Branch Dispy.

Hosp. Asst. [illegible] Balwant, Civil Hosp. Asst. Ramkrishna Lal, Betul Branch Dispy., to do duty under Civil Surgn., Nagpur.

Hosp. Asst. Murlidhar, Umrer Branch Dispy, Nagpur dist., to the Plague Segregation Camp, Umrer.

Hosp. Asst. appld. to do Plague duty Nagpur City, from the dates against their names :—

Muhammad-Hanif, 7th Dec. 1897.

Bali Ram, 6th Dec., 1897.

Ashutosh Chatterji, 7th Dec. 1897.

Girdhari Lal, 16th Dec. 1897.

The following Med. Sub. to do duty under Civil Surgn. of Jubbulpore :—

Hosp. Asst. Muhammad Siddiq, and passed Medl. Pupil Murlidhar.

Hosp. Asst. Ramachārya Jagannath Dubey, is reduced to the grade of Passed Medl. Pupil, by the orders of the Chief Commr., from 19th Sept. 1897.

N.-W. P. AND OUDH GOVERNMENT.

Asst. Surgn. Hari Gopal Chatterji, Sadar Dispy., Rae Bareli, privilege leave for three months from the date of making over charge.

Asst Surgn. Sri Ram, on Reserve duty, Lucknow, to the offg. charge Sardar Dispy, Rae Bareli.

Asst. Surgn Bishambhar Sahai, on special duty at Hardwar, has been on plague duty at that station from 27th March 1897 and is still on that duty.

Asst. Surgn. Prakash Chandra Mukerji, Sadar Dispy., Aligarh, held civil med. charge of the Aligarh dist. on the 7th and 8th March 1897.

Asst Surgn. Salig Ram, Sadar Dispy., Jhansi, held civil med. charge of the Jhansi dist. from the 18th to 22nd Augt. 1896.

BURMA GOVERNMENT.

Hosp Asst. Karim Khan assumed charge Ry. Dispy., Nyaungchidauk, Toungoo dist., 30th Nov. 1897.

Hosp. Asst. Khaburuddin assumed charge of duties, Jail Hosp., Rangoon 23rd Nov. 1897.

Hosp. Asst. Khaburuddin to hold charge Contagious Disease Hosp., Rangoon, from 23rd Nov. 1897.

Hosp. Asst. Khaburuddin assumed, charge Police Hosp Rangoon, 23rd Nov. 1897.

Hosp. Asst. C. A. Chinaswamy Pillay, leave for one year, 9th 1897.

Hosp. Asst. Tijimal Hussain assumed charge Police Hosp., Bhamo, 29th Nov. 1897.

Hosp. Asst. Wazir Singh assumed charge Civil Hosp., Mingin, Upper Chindwin dist.

Hosp. Asst. Wazir Singh assumed charge Police Hosp., Mingin, Upper Chindwin dist., 10th Augt. 1897.

Hosp. Asst. M. Perumal Pillay relinquished charge Famine Relief Works Hosp., Taungtha, Myingyan dist., 20th Nov. 1897.

Hosp. Asst. Chandra Sheokora Roy assumed charge Civil Hosp. Pauk, Pakokku dist., 14th Nov. 1897.

Hosp. Asst. Josiah Masilamoney assumed charge at Jail Hosp. Shwegyn, 28th Nov. 1897.

Hosp. Asst. Maung Aung Pru assumed charge Police Hosp., Pakokku, 9th Nov. 1897

Hosp. Asst. Maung Aung Tun assumed charge Jail Hosp., Pakokku, 9th Nov. 1897.

Hosp. Asst. B. B. Churkerbutty assumed charge Police Hosp. Pinka, Mogaung, 27th Nov. 1897.

Hosp. Asst. Amrita Lal Guha relinquished charge of duties with the P. W. Dept. at Kalaw, Southern Shan States, [illegible] Nov. 1897.

G. O. C. [illegible]

Native Mily. Pupil Khushbal [illegible] exam. is admitted into the service as [illegible] 20th Oct. 1897.

To be 1st class Asst. Surgns —Asst. Surgn. W. D. [illegible], and Asst Surgn. W. A. Boucher, from [illegible] Aug. 1897.

Hosp. Asst. Ismail Khan to be Senior Hosp. Asst. from 24th April 1897.

Surgn.-Major H Hendley, Joint Civil Surgn. of Simla, to the med. charge of the Army Head-Quarters Staff and estabts., remaining at Simla during the winter, from [illegible] Nov. 1897.

ASSAM GOVERNMENT.

Hosp. Asst. Mahendra Chandra Chakravarti, on being relieved of the med. charge of the Sairang Mily. Police outpost in the North Lushai Hills, 1st Oct. 1897, was employed as a supy. in that dist. from 2nd to 31st Oct. 1897.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Rs. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTH.

SEMPLE.—On the 17th Dec. 1897, at Kasauli, the wife of Surgn.-Maj. J. Semple, A. M. S., of a daughter.

MARRIAGES.

RIORDON—EVANS.—On the 13th Dec, at Fort Chapel, Bombay, by the Very Rev. J Hoene, S.J., John Riordon, Surgeon-Major, Army Medical Staff, to Gertrude, daughter of the late Mr. H. W. Evans and Mrs. Evans, Eaville House, Newport, Monmouthshire.

ROBSON—GLORDON.—On the 20th Dec., at Bombay, by the Rev. R. M. Gray, M.A., assisted by the Rev. Frank Ashcroft, M.A., Robert George Robson, M.A., M.B., C.M., Rajpootana, son of the Rev George Robson D.D., Perth, Scotland, to Helene Louise, fourth daughter of the Rev. Charles Auguste Glordon, M.A., Vevey, Switzerland.

NOTICES TO CORRESPONDENTS.

Durrant's Press Cuttings.—This Company is a London one and its office is at 57, Holborn Viaduct E.C., It provides news cuttings suitable to every kind of journal or newspaper for a small annual fee.

W. B. G. (Karachi).—Go in for the L.R.C.P. & S. Ireland. When you are ready we shall be glad to help you in any way we can. Your certificates will be fully accepted. You will have to pass in all the professional subjects. Six months' study ought to see you through safely.

Medical Advertising.—We continue to receive numerous letters re advertising medical men in Calcutta. We have warned those who are doing so, and we shall shortly give the advertisements which are being published in the daily papers of Calcutta, full publicity in this journal.

K. K. R. C. (Benares).—Your paper is still crowded out as it needs much "editing," and our time is very fully taken up at present.

H. K. S. (Raiganj).—The above remarks apply also to your paper.

D. L. B. (Peshawar).—Your suggestion about the "war reserve" is a very good one, and will be acted on.

Senior Assistant Surgeon.—It is quite possible the Government may confer the rank of Hony. Surgeon Lieutenant-Colonel on the Surgeon-Majors of the Warrant Medical Services on their retirement. One of them is, we hear, to be honored with a C. I. E.

A. P. (Hyderabad).—The conditions for the Fellowship must be duly fulfilled. We would advise you to address Dr. EDWARD LAWRIE. You have excellent papers and he will recommend you to Edinburgh.

G. L. (Khetri).—There are numerous places in *Darjiling* where private persons keep invalids, but none that we know of where persons of unsound mind are cared for. An advertisement in the *Record* would settle this question.

[illegible]

[illegible] OF THE CORNEA.

BY [illegible] C. D[illegible], M.B., M.A.
[illegible] of [illegible], Lahore Medical College, and Surgeon to the Eye and Ear Out-Patient Department, Mayo Hospital, Lahore.

ULCERS OF THE CORNEA.

Definition.—By a corneal ulcer is meant a loss of substance of the cornea due to suppuration which begins superficially, and leads to an early destruction of the anterior epithelium.

There is, as will be seen from the above definition, no essential difference between an ulcer and an abscess so far as the pathological lesion is concerned. In an ulcer the surface of suppuration is open; in an abscess it is closed. An abscess eventually may become an ulcer. The point of difference between the two has reference to the fact that in an ulcer, from the very commencement, the suppurative process is superficially located; on the other hand in an abscess, it begins in the deep-seated tissues. The clinical history of an ulcer, on account of the open and superficial character of the surface of suppuration, is, as compared with that of an abscess, much more favorable; in an abscess in which the purulent matter is from the beginning hemmed in by undestroyed layers, the tendency towards extension exists to a very marked degree, not merely on account of intramural pressure of the pus in the abscess cavity, but also on account of the general ocular pressure from behind. Hence it is, that the ultimate consequences of an ulcer, not considering those special ulcers which clinically bear a strong resemblance to abscesses, are, generally speaking, of a much less serious nature.

We have already followed in detail the evolution of an ulcer from the stage of infiltration to that of complete cicatrisation. From the point of view, both of prognosis and, of treatment, the principal point to determine is—whether the ulcer, as seen by the surgeon, is still in the progressive period, or whether it has entered upon the regressive stage; if, in other words, it has begun to heal. I therefore recapitulate, in a tabular form, the principal points, by paying attention to which, the requisite deduction may be arrived at:—

An ulcer in the *progressive period*.	An ulcer in the *regressive period*.
1. Is surrounded by a cloudy halo.	1. Is not surrounded by clouded corneal tissue, or if a haze of infiltration is present, it is extremely slight.
2. Presents an uneven grey or yellow floor.	2. Presents a smooth shining or transparent floor.
3. Has distinctly swollen edges, which like the floor is uneven and infiltrated.	3. Has thin smooth edges.
4. Is accompanied with more or less ciliary injection.	4. Presents little or no ciliary injection. Blood vessels from the limbs extend towards the ulcer.
5. Is devoid of an epithelial covering in all its parts.	5. Has its edges at least, covered with epithelium from the adjoining epithelial tissue.
6. [illegible]	6. [illegible]

[illegible] the subjective symptoms of pain and photophobia (notably the latter) are on the increase or decrease. If they are on the decrease, it may safely be inferred that the ulcer has passed the period of progression.

The progressive growth of an ulcer may take place either in the direction of superficial expansion, or of increased depth. In the former case, the ultimate result is a large cicatricial opacity; in the latter perforation of the cornea and its attendant [illegible].

Corneal opacity results in consequence of the fact that during the process of healing of the ulcer the loss of substance is made good (by gradual filling up from the bottom) by a non-transparent cicatricial tissue which is not corneal in character, but is a modified form of fibrous connective tissue. The filling up of the ulcer may be complete, in which case the cicatrix is on a level with the rest of the corneal surface, or it may be incomplete, the cicatrix being sunken, or it may be in some cases excessive, leading to a raised or elevated cicatrix. In all cases the scar tissue is covered with epithelium. A cicatricial opacity of the cornea during the course of time (months) certainly decreases in superficial area and in a great many cases shows an appreciable amount of thinning also; the opacity, to use a popular phrase, "clears up." The "clearing up," however, in all cases of opacity due to deep ulceration is of a very partial and disappointing character; it *never* proceeds to such an extent as to convert the opaque cicatricial tissue into the perfectly transparent tissue of the normal cornea. I am aware that VON ARLT, speaking of cicatrices, makes use of the phrase "complete regeneration of the cornea," meaning thereby that under the most favorable circumstances an opacity may disappear so completely that even with focal illumination no trace of the abnormal condition may be discovered. If such is ever the case, it has not come under my observation. A complete disappearance of the opacity occurs most frequently in small and quite superficial ulcers, occurring in children and in young subjects.

The course of an ulcer, having a tendency to spread downwards, is of a much graver character than that of one which progresses chiefly along the surface. Sooner or later, the ulcerative process reaches the membrane of Descemet; and if this should rupture, as indeed it does so frequently, perforation of the cornea results. The rupture of Descemet's membrane occurs either spontaneously or in consequence of a momentary increase of intra-ocular pressure from coughing, sneezing, laughing, stooping, &c., or on account of external pressure upon the globe, as by the application of a compress bandage. The immediate results of perforation are escape of the vitreous (the patient feels a hot liquid gushing out of the eye), obliteration of the anterior chamber partly on account of the escape of the aqueous, and partly on account of the pushing forwards of the iris and of the lens against the posterior surface of the cornea, contraction of the pupil, and if the rupture is sufficiently large and situated near the periphery, prolapse of the iris caused by the escaping aqueous. Dislocation of the lens, prolapse of the vitreous, intra-ocular hæmorrhage in old subjects, detachment of the retina, purulent irido-

cyclitis, and panophthalmitis are accidents which occasionally happen, provided the rupture occur with great violence. Perforation in some cases is preceded by the condition variously known as *keratocele*, *descemetocele* or *hernia* of the cornea. This occurs when the suppurative process has gone so far as to reach the extremely resistant membrane of Descemet, which now forms the floor of the ulcer. In consequence of the vis-a-tergo supplied by the intra-ocular pressure, the membrane is pushed forwards without rupturing, in the form of a small transparent vesicle, which in many cases is large enough to protrude above the level of the rest of the cornea. Should this hernia of Descemet's membrane not give way eventually, so as to produce an actual perforation, it persists as a smooth, transparent vesicle surrounded by a hazy cicatricial ring formed by the gradual healing of the ulcer around the hernia.

After the first outrush of the aqueous on the occurrence of a perforation, its further escape is prevented by mechanical closure of the rent. This is effected by the apposition of the iris or of the crystalline lens. If the perforation is situated in front of the iris and is of small size, it is closed by the simple application of the iris to its posterior aspect, and in a short time the anterior chamber is re-established by fresh accumulation of the aqueous. The iris is, at the same time, restored to its original position, in some cases, however, the restoration does not take place, and a permanent adhesion between the iris and cornea results, forming what is known as *an anterior synechia*. If the perforation is larger, it is occluded by an iritic plug; this may involve only a small portion of the iris (*partial prolapse or hernia*) or the whole of it (*total prolapse or hernia*), as in those cases in which almost the entire cornea is destroyed by the suppurative process. In these cases the prolapsed iris cannot become disengaged, as it becomes firmly agglutinated to the margins of the corneal gap, and becoming covered over with a plastic exudate forms the basis of the cicatricial tissue. This adhesion of the iris to the corneal cicatrix (anterior synechia) necessarily leads to distortion of the pupil. The extent of the distortion, however, depends in a great measure upon the situation of the perforation and the portion of the iris engaged in forming the plug. The anterior chamber in all cases is irregular in form; it may be very shallow or be even absent.

During the healing of a perforating ulcer of the cornea with a comparatively large prolapse of the iris, it generally happens that by the contraction of the cicatricial tissue, which is formed over the protruding iris, the convex mass is flattened out, and the resulting *leucoma adherens* is perfectly flat. When, however, the cicatricial tissue is not strong enough to cause flattening of the iritic projection or to withstand the distending influence of the aqueous, the cicatrix, instead of being flat, is ectatic or staphylomatous. In the case of a total prolapse of the iris, the ectasia or staphyloma is necessarily total (*staphyloma corneæ totalis*).

When the perforation is central, that is situated in front of the pupil, its closure is effected by the gradual formation of a thin cicatricial membrane from the margins of the opening; the iris meanwhile keeping in apposition to the opening from behind. In a few comparatively rare cases, in consequence of the mechanical closure of the perforation not being accomplished, or from repeated rupturing of the closing membrane, the corneal opening remains permanently open, and a *fistula* is produced. The aqueous keeps continually oozing out; the cornea flattens out (*phthisis corneæ*), and the eye-ball becomes soft (*phthisis bulbi*) and finally atrophies. One of the results of a central perforation of the cornea is the development of an *anterior capsular cataract*. This arises from a deposit of plastic lymph on the capsule during the temporary contact of the lens with the posterior surface of the opening; it is especially observed after ophthalmia neonatorum (Von Arlt).

It is important to bear in mind that the occurrence of perforation is by no means an altogether unfavorable event, so far as its effects upon the course of the ulcer are concerned. In many cases, after the occurrence of the perforation, the symptoms of irritation, pain, photophobia and blepharospasm subside to a marked extent, and the ulcer itself begins to show signs of healing. This is probably due to release of the cornea from intra-ocular pressure (on account of the escape of the aqueous) and the consequent improvement which occurs in its nutrition from freer circulation.

To sum up, ulcerative keratitis may have one of the following terminations, complete recovery or *restitutio ad integrum*, without any opacity; (2) permanent cicatricial opacity, (3) keratocele; (4) perforation with its sequelæ.

Aetiology.—The causes which lead to ulceration of the cornea, whether primary or secondary, are precisely the same as those which give rise to abscess. These have already been mentioned. In addition to them, the following may be cited as etiological factors standing in special relation to ulcers —

1. Defective closure of the lids as in keratitis—lagophthalmos.

2. Trophic disturbance of the cornea from paralysis of the trigeminus, as in keratitis neuroparalytica.

3. Constitutional impairment of nutrition in infants as in keratomalacia.

4. Absolute glaucoma.

5. Atheromatous degeneration of old corneal opacities.

6. Deliquescence of corneal abscesses.

In by far the large majority of cases, corneal ulcers occur in consequence of conjunctivitis; and so far as we in the Punjab are concerned, chiefly in consequence of trachomatous conjunctivitis. In the following table will be found the principal features of ulcers resulting secondari-

by no means the most important types of conjunctival inflammation which prevail in the country :—

Conjunctivitis.	Situation.	Character.
1. Acute catarrhal conjunctivitis.	Margin of cornea and concentric with it.	Chiefly crescent-shaped; occur specially in elderly persons, and tend to increase in extent rather than in depth. Size small.
2. Acute blennorrhœal conjunctivitis.	Sometimes at the centre. Sometimes at the margin; oftenest in the lower half of the cornea.	Occur during the height as well as during the regressive period of the disease. They spread rapidly both in diameter and in depth, and often end in complete (a marginal zone, however, is left intact) destruction of the cornea, or even in panophthalmitis.
3. Trachomatous conjunctivitis	On any part of the cornea.	These ulcers are small, round or irregular by coalescence. They occur chiefly when pannus is present, and are the results of ulcerative breakdown of the infiltration at the margins or in the substance of the pannus. In many cases a single comparatively large ulcer is developed at the centre of the cornea, without any accompanying symptoms of irritation. It is a clean ulcer and heals incompletely and slowly.
4 Conjunctivitis lymphatica	Marginal.	Small, superficial ulcers occurring singly or in groups, occur sometimes partly on the cornea and partly on the limbus. Heal easily. In *keratitis fascicularis* the ulcer carries a leash of blood vessels from the limbus, it never causes perforation of the cornea.

THE SANITARY CARE OF THE SOLDIER BY HIS OFFICER.*

By Surgeon-Colonel G. J. H. Evatt, M.D., A. M. S.

(*Continued from page 100, Vol. XIV.*).

13 *Sanitary Inspections.*—I say, then, that those Medical Officers who are detailed for the sanitary care of regiments or batteries are doing those sanitary inspections frequently during the week. Thus on one day of the week they would go and inspect the barrack buildings and see them thoroughly, and I always find in any garrisons where I have been in charge as Medical Officer that it is not possible for any Medical Officer to do his sanitary duty properly by the regiment if he endeavours to carry out inspections of men and barracks on one day; because if he stops for a moment to look at anything that is defective in the sanitary state of the barracks he is sure to be keeping the men in a distant part of the barracks waiting for him and keeping them away from some important duty. I assert from long experience that it is not possible for any Medical Officer to make those inspections of men and barracks at the same time and on a single day.

14. The officer then inspects the barracks and he inspects the men. Now, many of the younger Medical Officers have complained, and are complaining, about the difficulty that they experience in carrying out these inspections. The other day I saw a letter in a military paper from a Medical Officer proposing that all these inspections should be abolished, that it was impossible to carry them out, and that they were a perfect farce. On the very day that letter appeared in the paper, on the parade of this very garrison one man was taken off parade sick with scarlet fever, out of the West Riding Range; another man was sent off sick with a disease like scarlet fever; and I myself on another inspection sent a man to hospital with jaundice. Now, why are the Medical Officers wishing to get rid of these inspections, for they are really a most important matter? It is because it is difficult for them to get proper parades of the men. They go into the barracks and they find it difficult to know to whom they should look; a parade is formed up for them in a scratch way and is often a feeble and farcical affair. I am not speaking of Woolwich particularly, but over and over again I have had to write to C. O.'s and point out that while the number of men in a corps or garrison is strong, the number on parades given to us are very weak.

15. In the same way in going about on the sanitary inspection of the barracks one does not know to whom to look to go round with one. I say to a Medical Officer, "You are posted to the sanitary care of such a regiment. I beg you to go down and leave your card at the orderly-room. I specially want you to know the Commanding Officer socially and personally," because unless you are able to approach him socially and personally you know when letter writing begins efficiency constantly ends, and it is essentially necessary that there should be the most free and complete intercourse between the two. But if we find this great difficulty exists in the first instance in getting our sanitary officers themselves taken round the barracks by some one who is responsible and who knows the barracks, and secondly in getting a good health inspection parade of men, the whole thing degenerates into a farce, and every soldier undervalues it. "Let us, I say, most earnestly come to some definite conclusion one way or the other on this sanitary routine; either let us do the thing well or let it be abolished," because to-day, in the year 1894, the question of half-and-half measures and compromise is coming to an end in everything, and we in the medical service want to know how our duties stand, and what they are, and we desire to do them if we are really responsible.

16. In a certain station abroad that I have got in my eye, I went to the Commanding Officer of a regiment in the garrison and I said to him, as the senior Medical Officer of the station, "It is my interest and yours that we should both work together. I will give you an officer who will make your regimental inspections, but I beg you to give him a responsible officer to go round with him." I said then, and I say still, that I do not consider that the officers who fill the post of

*(A Lecture delivered at the Royal Artillery Institution, Woolwich, and read by the Record by the author.)

[illegible] the Commanding Officer, should meet my officer, and thus the inspection should be made conjointly, so that the reports that are made shall reach myself and the Commanding Officer straight and direct.

17. The Quartermaster represents not the executive side, but an important administrative side, if you please; had the constituted [illegible] English soldiers which, mind you, implies great powers in our army, also implies great and most serious responsibilities; and, therefore, throughout my service at home or in India I have endeavoured in the regiments I was raised up with as senior Medical Officer, to get a Subaltern Officer as well as the Quartermaster to go round with my Medical Officer at these inspections. The result has been in every way excellent. You can get the work done well, and it is astonishing what a different thing sanitation becomes under such a condition.

18. The sanitary inspecting officer then, of the various batteries or regiments, make out their weekly reports of the sanitary inspections made on the Friday and Saturday, and on the Monday morning I myself had, when in India, and have every week here, a regular sanitary conference with the sanitary officers serving under my orders; that is to say, I meet all the Medical Officers of those regiments, and there is no sanitary question or shortcoming so far as my lights go (and I have had 29 years of a soldier's life) that is not fully and freely discussed, and I read over the diaries. If anything has gone wrong I say, "Have you written about this to the Commanding Officer? The Medical Officer replies, "Yes, I have." "Then bring me the reply: What is it?" And I would say to officers commanding the various units that when Sanitary Medical Officers write letters to them, of course they look for an answer: but very constantly we wait and no answer comes. I have found the matter so difficult to deal with in some most sickly stations that I have been at, that I went to the trouble of getting a form printed, saying at the bottom, "Will you please favor me with an account of what you propose doing in this matter, so that I may fill up my own sanitary reports." I think such a sanitary report form much needed in our army.

19. *Sanitary Diaries.*—Having read the letters and the diary, I advise with the officers as to the course to be pursued. Should the Commanding Officer write back, and say, "I regret to say I am unable to carry out your suggestion on account of so-and-so;" then the matter, so far as it lies between those junior sanitary officers and the Commanding Officer, ceases; it passes to me then, and I myself write to the Commanding Officer of the regiment pointing out the necessity of such-and-such a suggestion; and when he replies, if it is a senior officer writing to me probably he may modify his opinion and the thing may be done, or he may reply. "I regret I cannot see my way to carry out the suggestion." Then the matter comes between him and myself. I then write a letter to the Principal Medical Officer pointing out that [illegible] taking out the men at [illegible] drilling, and keeping them out [illegible] and then the men coming in [illegible] evening because they have [illegible] food, and that it causes me great anxiety that I have requested him to consider the matter and asked him if he could modify it, but that he says it is not possible; and then I beg the Principal Medical Officer to consider the matter, and if he concurs with my views, I beg him to move the General Officer Commanding whether he can order the Commanding Officer to do so-and-so. Then the matter passes out of my hands and lies between the District Principal Medical Officer and the General Officer, and they discuss the matter. The General Officer may concur and order the suggestion to be carried out, or may not concur and the whole matter falls for a time into abeyance. These recommendations may refer to any possible matter in the wide range of sanitary duties.

20. *Quarterly Sanitary Returns.*—From the various weekly returns compiled by the Sanitary Medical Officers and myself, the Sanitary Officer of the garrison makes out every quarter a quarterly sanitary return dealing with every possible sanitary and health question; referring to the healthiness of the barrack-room, the over-crowding, the water-supply, the latrine arrangements, the clothing, the drills, the cooking, the food, and everything. And this report, together with the remarks of the Principal Medical Officer of the district, go in one report up to London to the Director-General of the Medical Department, and the latter then, as head of the medical service, considers the reports with his sanitary staff in London, and advises the Commander-in-Chief as to what he considers should be done. At the end of each year a Blue Book is published, dealing with the health and sanitary condition of the army, and this is sent to the War Minister and by him printed and presented to the Houses of Parliament. It embodies the statistics of the sickness of the army and the sanitary reports of the Principal Medical Officers of District; but I do not see in this Blue Book the final opinions of the Director-General of the Army Medical Department on the health of the army as a whole. The Blue Book contains the reports of the Principal Medical Officer of the Districts throughout the Empire, which the Director-General simply embodies and forwards on to the War Minister, and that official to Parliament.

21. *Director-General, A. M. D.*—I think myself that it would be a great thing if it were possible that the Director-General in London, who has the enormous benefit of receiving the reports of the Principal Medical Officers all over the world, should give a summing-up on the various sanitary matters that are put before him for the information of Parliament. This is an outline, I say, of how the sanitary side of the army works as regards its organization from the Sanitary Officer of a battery up to the Director-General and the War Minister.

22. *Public Opinion in Barrackdom.*—I would now come back from these general remarks to the minutiæ details of sanitary matters. Let us begin with the barrack accommodation of the soldier. I think you [illegible] in 1857,

[illegible] the Crimean War of 1854-56, a great Commission, called the Sanitary Commission, [illegible] recommendations. They made a recommendation that every soldier in barracks should be allowed 600 cubic feet of air space. They found, when they examined the barracks at Chatham, that the proportion allowed to each man was only 300 cubic feet, and they made the recommendation that each soldier in barracks should receive 600 cubic feet, and that ventilators should be placed in the room which would allow the air in that 600 cubic feet of space to be changed twice in one hour, so that a soldier might be able to receive 1,200 cubic feet of breathing air in the course of one hour. Now, why was this asked for? Was it by a fluke or chance? I say that I can no more modify my opinion as regards the cubic space for the soldier than any gunner here can modify his opinion as to the thickness of the parapet as regards the penetration of his shot. It is governed by a law. A human being to breathe healthily and well requires 3,600 cubic feet of air in the course of an hour, and the total "ration of air" that the soldier now receives from the country is only 1,200 cubic feet per hour, that is to say, far and away below the normal average of a healthy man.

23. *Over-crowding, Consumption.*—The result of the old over-crowding of barracks was always that it resulted in consumption, phthisis. This consumption, this destructive lung disease, was caused by the over-crowded men breathing in and out this poisoned air into the room and poisoning the air with carbonic acid gas; and, furthermore, and much worse, by pouring out of their lungs in the course of every day 30 grains of organic matter which is the waste material of the body. This poisonous atmosphere, which, mind, will poison an open wound if exposed to its pernicious influence, will cause a strong healthy man to sink into ill-health and give him consumption, and did in the old days kill off the splendid ante-Crimean guardsmen at the rate of 20 per 1,000 per annum. Put yourself, then, in our position as medical officers, who all of us know this, and who are taught at Netley the danger of this poisoned air, and say how can I be silent or how can my officers be silent, or how can you expect me to be silent and not write and point it out when anything like over-crowding occurs? I say that if I was to be negligent or silent I would be as much a traitor to the efficiency of the army as that officer in command of an outpost who sees the enemy approaching, and is such a poltroon and such a traitor as not to report it.

24. To us in the medical service, who see the evil results of overcrowding, there is an enormous force driving us onward in the sanitary struggle for the soldier. It is not that we may be more humane or more philanthropic than other officers, but if I stand in a garrison every morning and see the whole sick of that garrison pass through my hands, and hear from every individual private soldier the reason why he is sick and why he has fallen ill, and if I hear from every soldier's wife the reason why she is ill, or her child is ill, I say that the duties resting upon me form enormous and irresistible forces. This is the force, then, which is driving us to write and work and, perhaps, bother you in the middle of your work for the soldier's sake.

25. An officer, who may be a keen gunner and who believes absolutely in his guns and forces, may, by reason of his very keenness, forget for a time that behind the gun is the man who works the gun, and, riding the horse is the man who is 10,000 times more valuable than the horse. The man is one-sided, and we, hearing his story and seeing his condition, are peremptorily urged forward on the pathway of sanitary progress for his sake. We are urged forward, then, not only by the actual breakdown of the soldier's health, which we see for ourselves and by the reports of the soldiers who are actually our patients who tell us the reasons of their illness, but constantly the medical service is being made use of by officers of rank and standing to urge forward improvements or recommendations which they themselves hesitate to put before the authorities. How often have I said to such an officer, "You are using me to put this matter forward; why not represent it yourself? You have rank, standing and position; why come to me?" He will reply, "The medical service is independent, able to speak, and unless you assist we cannot succeed." I maintain, then, that General or even higher officers in high command, when they receive recommendations or suggestions from the medical department, may be, and often are, entirely unaware of the real sources of the recommendation.

26. The more hard or unyielding the General, the more is the medical service used to move him. How clear, how definite, how unassailable, should be the rank and status of the sanitary officer liable to the pressure of the upper and the nether millstone in the clear discharge of his duties to the army. Surely he forms a definite part of the army that cannot with any sense of justice be put aside. We in the medical service knowing this responsibility, knowing these heavy duties, knowing the various unseen currents acting upon us, and placing us in direct prominence as sanitary officials speaking for the good of the army, as a whole can never cease to claim defined and unassailable military status, not merely for our own personal sake, but for that army who in every rank, from the highest to the lowest, are at times compelled to have recourse to our assistance.

27. The army does not want a body of weak-kneed, trembling Medical Officers with defective status and shaky rank, but rather a highly-trained and thoroughly disciplined and independent body of sanitary advisers in deep sympathy with the army as a whole, and bringing all the help of modern scientific investigation to bear on the preservation of the health efficiency of that army, which, scattered over an enormous Empire, is fighting a trying battle with disease and death in peace and in war wherever the English flag is flying.

28. *Fresh Air and Discipline.*—Let us return now to purely sanitary details. The Sanitary Commission in 1856 fixed on 600 cubic feet of air space for the soldier, and they put in ventilators which enable this air to be changed twice within one hour. There is a law governing the size of the openings of the inlet and outlet ventilators which enables a certain fixed amount of air to come into the barrack-room, and these give the soldier

this definite "ration of air." The air of the average badly ventilated barrack-room about 5 o'clock in the morning can become almost poisonous, and a horrible odour of organic matter from the soldier's body and bad air from his lungs, can and often does produce thoroughly deleterious atmosphere. It is as necessary to have a good system of ventilation in a barrack-room, so that the air may be changed, as it is necessary to have the barrack latrine outside flushed by water. This flushing with fresh air-called ventilation is waiting to sweep away the poisonous organic matter so as to make the room sweet and fit for the soldier to live in. For *whose* sake? For all your sakes. And why? If the soldier sleeps for eight or nine hours in that bad atmosphere, when he rises in the morning he is in a semi-poisoned state, he does not feel fresh and fit for work, and what is the result? He looks about for drink as a stimulus. The soldier after a long night in that bad atmosphere, stupified by bad gases, may also be below par in a nerve sense and be in a bad temper—that is to say, he is not fit and well as he should be. The difference of good and bad air in its action on ourselves is very well shown by the depressed state in which we feel ourselves on an Indian troopship, when coming up on deck in the morning from the stuffy cabin below stairs where we may have passed the night, and the feeling of freshness and elasticity we feel after sleeping in some well-ventilated Indian tent: in the one case we are in good temper and fit and fresh for work; in the other case we are below par and unfit for work. Why? Because in the troopship we are semi-poisoned by the poisonous gases and organic matter given off by the hundreds of people in the crowded 'tween decks below, and which drifts back into the officer's cabin and into pandemonium.

29. *The Ration of Air.*—The soldier, then, has a fixed and definite ration of air allowed him by the State. Just as he is allowed a "ration" of money, called pay, and a "ration" of food, and a "ration" of clothing, and a "ration" of water in the tropics to sustain his existence, so he is allowed by the regulations a "ration of air," and there is no more legal right to take away from him that defined ration of air by over crowding him, than there is to take away from him his pay, his food, or his clothing allowances. *We must never forget, also, that the ration of air of the soldier is in no sense a full ration.* If I were to sit down in a physiological laboratory and deal with the ration of air in a purely scientific and abstract manner, I would then say that on purely physiological grounds he requires 3,600 cubic feet of air per hour to keep him healthy and fit. The Sanitary Regulations, which were framed in 1860, and which still govern the army, were only tentative, and as the official working goes, "Only for the present time (1860)" only gives the soldier 1,200 cubic feet of air per hour; therefore he is to the bad the difference between 1,200 cubic feet and 3,600 cubic feet per hour.

30. In these bygone days, so wrongly called "the good old days," the terribly over-crowded state of the men caused the dreadful atmosphere of the barracks, bringing about air poisoning and ending in consumption. While the deaths in the civil population of the military age (20 to 40) were 10 per 1,000; in the splendid cavalry of the line they were 18 per 1,000; in the regiments of Foot Guards they were 20 per 1,000, and in the infantry of the line 15 per 1,000, as against 10 per 1,000 of the same ages in the civil populations. That is to say, this elaborately turned out, heavily pipeclayed and absurdly dressed soldier of the old pre-Crimean day was dying of practically preventable destructive lung diseases, and the Army Medical Service up to 1858 had no power to say one word of advice or warning in this most serious death-rate.

(*To be continued.*)

PROFESSIONAL SECRECY AT HOME AND ABROAD.*

By Malcolm Morris, F.R.C.S.
Editor, "The Practitioner."

The result of a recent trial has been to bring into prominence the obligations and legal relations which exist between medical men and their patients with regard to facts learnt in the sick-room involving questions of professional secrecy. On this subject little has been written in this country, and the student has to turn to foreign literature, especially to that of France and of the United States, for a full discussion of the questions involved We propose to consider briefly some of the obligations of professional secrecy as they obtain in this country, where the matter is not under statutory control, and in certain other countries where it is governed by legal enactments, at the same time giving a few actual cases in illustration of the points raised.

Ever since the practice of medicine has been an organised profession, the obligation devolving upon its members to regard as inviolable the secrets confided to them, and those to which they gained access during attendance on their patients, has been a generally-recognised tradition. This tradition was embodied in the well-known Oath of Hippocrates, of which the final paragraph runs as follows:—"Whatever in connection with my professional practice, or not in connection with it, I see or hear in the life of men which ought not to be spoken of abroad I will not divulge, as reckoning that all such should be kept secret. While I continue to keep this Oath unviolated may it be granted to me to enjoy life and the practice of the art respected by all men in all times! But should I trespass and violate this Oath, may the reverse be my lot!" In a similar manner the faculty of medicine of Paris embodied this tradition as to the obligation of professional secrecy very concisely in the following formula, which was promulgated in 1566:—"Ægrorum Arcana, visa, audita, intellecta, eliminet nemo." It will now be necessary to consider how far this tradition has been modified in modern times, and to what extent it has received legal sanction.

In Great Britain and in most of the States of the American Union medical men, when they appear in a court of law, can be compelled under oath to divulge such confidences, rendering themselves liable in case of refusal to committal to prison for contempt. Medical men in this country are thus, from a legal point of view

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in exactly the same position with respect to secrets confided to them in the practice of their profession, as the rest of the world is with respect to ordinary secrets.

On the other hand, in most European countries and in a few of the States of the American Union, professional secrecy has been made the subject of special enactments. In France the betrayal of professional confidence is of itself a punishable offence.

It will now be useful to compare, with some little detail, the working of these two systems as regards the obligation of professional secrecy involved under the two following heads:—(*a*) The obligations to retain secrets, and the consequences of divulging them; and (*b*) the obligations to divulge secrets, and the consequences of retaining them.

(*a*) *The obligations to retain secrets, and the consequences of divulging them.*—In France, according to Professor BROUARDEL, there are, broadly speaking, three classes of facts which always involve the obligation of secrecy: (1) Facts with regard to the nature of the disease, amongst which are (*a*) those known as "maladies secretes," or, in other words, venereal diseases; and (*b*) diseases which are either known or supposed to be hereditary, such as epilepsy, tuberculosis, and mental alienation. (2) Facts with respect to diseases, which usually lead to a more or less rapid death. (3) Facts which, though not in their nature secret, become so under special circumstances. For example, the birth of a child is not, as a rule, to be regarded as a secret—in fact, medical men in France are bound under penalty to the authorities to notify any birth occurring in their practice in the absence of the father; but where a girl who has been seduced gives birth to a child, the medical man, in reporting the birth, does not give the name of either the father or the mother; nor does he give the address of the house in which the child was born. If he divulged any of these facts, he would render himself liable to a penalty. Again, cholera is not a secret disease; but in the case of a man dying of cholera in a house of ill-fame, the fact of his having done so may not be divulged by his medical attendants. In such a case it is usually assumed that he has been attacked by the disease in the street, and thence carried to a hospital—a form of polite fiction which in Paris is connived at by the Prefecture of Police.

The rigour with which the law in France with respect to professional secrecy is enforced is well illustrated by the case of Dr. WATELET, who, in 1884, in order to defend himself against false accusations with respect to his treatment of M. BASTIEN LEPAGE, during his last illness, wrote a letter to *Le Matin*. In this letter he described the disease, the operation, and the result of the subsequent examination of a tumour removed. For the publication of this letter he was prosecuted and condemned to a fine of 100 francs, and the conviction was upheld on appeal.

In addition to the penalties under the penal code, medical men in France are also liable to civil actions if their betrayal of professional confidence can be shown to have caused the aggrieved party technical damage.

In this country, if a medical man voluntarily divulges secrets acquired in the course of his profession, he does so at his own risk, for the secret is that of the patient who has a *prima facie* right in law to require that it shall not, under ordinary circumstances, be divulged to any third party. If he can show that he has suffered any damage in consequence of the publication of the secret, he is entitled to redress. Supposing that action taken by the patient should be for defamation of character or for libel or slander, the medical man under certain circumstances might plead "justification"—that is to say, he might set up as a defence to the action "that the words spoken or written were true in substance and in fact." Whether this plea would be successful or not would depend on the view taken of the circumstances by the jury. If, however, it should not be thought desirable to enter the plea of "justification," the question of "privilege" might arise. What circumstances exactly constitute privilege when a medical man communicates a professional secret to a third party has not been authoritatively decided in this country; but, to take an extreme case, there is little question that where a doctor, having ascertained in the ordinary course of his profession that his daughter's intended husband was suffering from syphilis, communicated the fact to his daughter, with a view to preventing the marriage, such a communication would be regarded as privileged; whereas in France, under precisely similar circumstances, a medical man would have rendered himself liable to penalties for divulging a professional secret.

In France, in addition to the various classes of cases which have already been referred to, and in which the necessity for professional secrecy is regarded as absolute, there are a large number of other cases in which a certain amount of discretion is permitted to the medical man, as, for example, in questions of life assurance and death certification. With regard to life assurance there has been much discussion and litigation in France. It has been held that under exceptional circumstances the family doctor may disclose facts with respect to the person to be assured, but not where these have any bearing upon the family history. As a matter of practice, however, at the present time, it is considered a breach of professional secrecy for the family doctor to disclose any facts with regard to the personal or family history of his patient, and the death of the latter does not release him from this obligation. The companies' interests are considered to be sufficiently protected by the report of their own medical examiner. In the case of certification of the cause of death again, a certain amount of latitude is allowed to medical men. Still, here there are a large number of diseases where, if the doctor certifies as to the actual cause of death, he is considered as guilty of a breach of professional secrecy. These instances will suffice to show the difference between the practice in France and in England.

(*b*) *The obligations to divulge secrets and the consequences of retaining them.*—With regard to this heading, it may be stated in general terms that in France the physician is bound to divulge professional secrets in those cases where their retention involves plots against the State, or against the lives and welfare of individuals—in cases, for example, of poisoning, abuse of children, and criminal abortion—and with regard to these subjects the obligations of the medical man in England are the same. A failure to divulge would cause him to be considered an accessory, and render him liable to penalties. The medical man in France is also bound under penalties

[illegible] which have [illegible] and [illegible] law is so [illegible] the [illegible] of [illegible] of infectious [illegible] with regard to evidence in a court of law, a [illegible] Proper course for [illegible] to disclose [illegible] to produce; discussions which have [illegible] himself and his patient in professional [illegible] Many cases have been decided on this point, of which the following is an example:—Whilst, after an insurrection in Paris, Desessarts was confined by the Prefect of Police as [illegible] insurgents under treatment in his hospital, he replied, "I have not taken any insurgents in my hospital wards; I have only sick and wounded men."

In England and most of the States of the American Union communications between client and legal adviser necessary to their relations only are held to be confidential, and protected from disclosure in a court of law; whilst medical men are bound to give evidence as to facts learnt professionally which have any bearing upon the case. The leading case on the subject is that of the Duchess of Kingston, who was tried for bigamy in 1776. On that occasion CALEB HAWKINS, who was called as a witness, refused to answer a question on the ground of professional secrecy. The Court, however, held that a surgeon was bound to disclose professional confidences which voluntarily to reveal, said Lord MANSFIELD, "would be to be guilty of a breach of honor and a great indiscretion, but to give that information which by the law of the land he is bound to do will never be imputed to him as any indiscretion whatever." In view of this decision, any medical man refusing to testify in a court of law to facts which had come to his knowledge professionally would render himself liable to be committed for contempt of court. Whether he would be committed or not would depend on the judge, whose decision would be governed by the particular circumstances of the case. The only case according to English law in which a medical man may refuse to disclose secrets between himself and his patient is when such disclosure would incriminate himself.

In New York and certain other of the American States it has been enacted that "a person duly authorised to practise physic or surgery shall not be allowed to disclose any information which he acquired in attending a patient in a professional capacity." In the States where this enactment is in force, the position of medical men in a court of law is practically the same as in France. The Court of Appeal has decided that all information must be regarded as confidential which has been acquired by the physician in his professional attendance, whether personally observed by him in examining the patient or imparted to him by anyone in order to enable him to act in his professional capacity, and that, too, although it might not, in fact, aid him to prescribe.

From the foregoing remarks, which have touched upon some only of the questions involved in the subject of professional secrecy, it will have been seen what a wide difference exists between the strictness with which the old tradition is still adhered to in France and elsewhere, and the great modification which it has undergone in our own country. While not wishing to abandon our greater freedom, and feeling that the interests of patients may be safely left in the hands of their medical advisers, we consider that the rule with respect to the disclosure of professional secrets in court is, in the words of BEST ("Law of Evidence," p. 633), "a rule harsh in itself and of questionable policy."

ALCOHOL AND THE VOTARY.

By JAMES [illegible]

Bombay.

We shall open with a few preliminary remarks.

The judicious use of alcohol in disease need not be much discussed here. As an energy-producer it is unequalled. By its rapid oxidation in the system, it provokes work and so aids intussusception and assimilation. But since every degree of labor must necessarily be followed by a like degree of weariness, this can neither be counted an advantage nor a disadvantage: the system, under the influence of alcohol is made to do in a short time what it would otherwise take a longer time to accomplish.

Whatever may be the real advantages or disadvantages attendant upon the use of alcohol in disease, certain advantages, which will appear to outweigh all disadvantages, call for remark: it exercises a powerful germicidal influence, and it doubtless possesses the power of suspending those processes of fermentation that take place in the blood during disease. In all the fevers, therefore, its action being such, it will tend to lower the temperature of the blood; while in diseases where the temperature has fallen very low, as in cholera, its ready oxidation will tend to warm the system; thus, in either case, leading to a possible cure.

But in health the use of alcohol is a practice to be utterly condemned. In many instances it is taken to create an appetite for food. The result is that it so provokes the appetite, that more food than is necessary is consumed; with the surfeit the healthy appetite disappears; and alcohol becomes absolutely necessary to recall it.

If men fasted less between meals in proportion as they worked more, their appetite for food would never desert them. By long fasts between meals, the food supply gets exhausted, the temperature falls below the normal, and the appetite disappears. The loss of appetite is due to a want of food, and easily digested food alone, taken at intervals in small quantities, will restore it. Alcohol would only create a false appetite, whilst it would also weaken the digestive powers after its action has ceased.

In many cases alcohol is taken to overcome depression, but since depression is always more or less connected with a lack of food supply or a loss of appetite, food alone will permanently overcome it. Alcohol will stimulate no doubt, but that is only for a time, after which depression will follow.

The chief tendency of alcohol is to usurp the places of oxidation of the carbon or fat particles of the blood, and its oxidation is so rapid, that the lungs, with all the others organs in the animal economy, are exalted to unnecessary over-exertion by it.

We all know that acetic acid is produced by the oxidation of alcohol, and there can be no doubt that this alcohol, as it is being oxidized in the system, is being converted into acetic acid, for a very pleasant acid to gulp down at a draught, though our systems may be converted into so many laboratories for its formation by gulping down alcohol instead.

[illegible] of the [illegible] [illegible], resulting in the gravest injury [illegible] of the body.

[illegible] cumulative effect upon the system [illegible]. This may be seen from a perusal [illegible] the opinions contained in which are based [illegible] experience, observation, and the confessions of others.

With these prefatory remarks always in view, we shall begin our essay.

Few men there are who are not fond of their glass. Coming home from work the weary clerk and the tired mechanic take it for the tonic force that it exerts upon them, mentally and bodily; it dissipates their sulky spirits and makes them feel hale and hearty once more; it loosens the strings of their speech and strengthens their languishing hopes; it brightens their prospects of life and removes all their various doubts.

But wait; the tonic effect has passed away; their eyelids begin to droop, and sleep soon overcomes their exhausted natures.

Splendid, indeed, is this tonic effect of the glass whose contents send thousands to eternal damnation; laudable, indeed, is it to cheat nature of her lawful demands for rest by postponing them for a time; and glorious, indeed, is it to sleep into a sleep whose tranquility is to be disturbed by the demon that lurks within the glass.

Say I true! The labors of the mechanic and the clerk are depressing; they come home weary and exhausted; that infernal glass of liquor goes down their throats; they feel rejuvinated; the depression of their day's labor, however, still lurks within them; soon the effect of the liquor passes away; a greater weariness than before now seizes them—a weariness produced by the combined weariness brought about by their day's labor and by the action of the stimulus upon their nerve-centres; and they drop asleep, and sleep the sleep of the laboring man combined with the sleep of the drunkard!

So much good then, does the so-called tonic dose of alcohol exert upon a tired system. It exhausts that system more, and can hence do no good.

And regularly every day is the luxury of that one glass indulged in till its luxurious effects are no longer felt. The system has become so accustomed to it, that the stimulant effect which it had exerted upon that system at the beginning is now no longer felt. Something must then be done to realize that effect. The dose must be increased, and increased it is accordingly, with the result that an effect, similar to that experienced at the beginning, is produced. The effect, therefore, of two glasses upon the system is now quite the same as that which was produced when the individual was accustomed only to one glass. But, as time sweeps on and the system gets thoroughly accustomed to these two daily glasses, the effect ceases to be felt, and an increase in the quantity consumed becomes necessary to produce that [illegible] is done and a third glass is added on. [illegible] quite the same as to the two previous [illegible] after all, a [illegible] large

[illegible]

[illegible] When [illegible] certain injury is being done to the system [illegible] should [illegible] not accustomed to taking a glass [illegible] is ever [illegible] on taking it, experiences [illegible] of exhilaration. But [illegible] individual, [illegible] habit, ceases to experience any such [illegible]. It therefore shows that he is [illegible] that his system [illegible] a state below the normal one. In [illegible] language, it [illegible] that his [illegible] undergone such a change as to cease to [illegible] by the accustomed dose. If, then, the [illegible] no longer stimulated to extra action on the [illegible] of the usual quantity, they must experience [illegible] of depression; since the alcohol must act [illegible] the other. It has ceased to stimulate; therefore [illegible] begun to depress. And experience teaches us the truth of [illegible]. That one glass a day, to which our subject has grown so thoroughly accustomed, no longer exhilarates his mind, but stultifies it, at the same time that it exercises a depressing influence upon his general system. He comes home from work, feeling that healthy sensation of weariness which springs from honest toil; down goes the habitual dose, instant depression of spirits overcomes him, and he feels as sick of life as any sot after a carousal.

Certain injury then, is being done to the system of such an individual. So soon as he takes his daily glass his system drops below the normal standard. To bring it up to normal or above he must therefore do one of two things—either entirely abandon the habit he has acquired and abide his time, or quicken his system into a state above the normal standard by gradually increasing the usual quantity consumed.

In all cases it is wiser to follow the former course; but in the majority of cases the latter is chosen.

Now, where lies the essential difference between the man that takes his one glass a day and derives no sensible pleasure therefrom, and him that has learned the art of taking more, restricting himself, however, solely to that quantity necessary to produce exhilaration in him? Merely in this:—While one takes a delight in exalting his spirits every day, the other depresses his.

Defining a drunkard, for purposes of this essay, as one who is more or less under the influence of alcohol for a time or for all time, we have, up to this point, made out two classes of them—one class, including all those who, beginning with one glass every day and deriving a certain amount of pleasure therefrom, gradually increase the quantity so soon as the pleasure, which they had derived from one glass alone, ceases to be any longer felt; and the other class, comprising all those who continue to take their one glass every day, even after the pleasure which they had experienced at the beginning, has long since ceased to be felt.

The former, studying exhilaration alone, up to a certain point, cannot but injure themselves more quickly than the latter class who consider only depression.

By following the methods of the former, it will take a man all his life-time before three glasses a day of potent spirits fail to intellectually exalt him and rouse his energies. He experiences that intellectual exaltation, and he stops there; while the other is content with intellectual depression alone.

The former class may therefore be classed under the head of moderate drunkards, and the latter under the head of simple drunkards.

But such men are rare, very rare. Many there are who profess to be as strict as they in their habits, but such men are liars. They would boastfully tell you that they are quite content with a glass of liquor a day, and would advise you to be like them; but if you were to ask them to discuss a bottle of whisky with you, they would very readily do so, so long as they are spared the expense of paying for it. They indulge in a fondness for alcohol, but their wives or their purses would not allow them more than a limited quantity per day. Those who love their glass will also be generally found to love their bottle.

Now comes a third class of drunkards, more notorious than the former. They are the occasional drunkards, consisting of men who, ignorant of the art of drinking, on grand occasions guzzle down large quantities of liquor, like so many horse-keepers, without knowing when to stop, and also of men who are prepared to drink whenever an opportunity for doing so presents itself.

Any sane man now would say, that of the three classes enumerated above, the last class are apt to injure themselves more quickly and more surely than the former two; for, whereas the former have acquired habits to which they regularly adhere, the latter, having formed no such habits whatever, would be always prone to the danger of taking more than they are able to bear.

Experience emphasises the truth of this. On grand occasions, these occasional wine-bibbers, in most instances, fall into this error. After the intellectual exaltation produced by the first or second glass has begun to wane, they are prompted to take another, which they unfailingly do, to keep up their spirits as they imagine. But this second or third glass falls short of the desired result, and a third or a fourth glass becomes necessary. Then follows the horse-keeper style of drinking, all for the object of rousing the intellect. But this is impossible, since the intellectual exaltation experienced at the beginning is now fast becoming intellectual depression; the victims rave foolishly over their cups, their reason fast going from them, and their power of voluntary control is going too; till at last, their brains reeling, their eyes swimming, their ears tingling, their knees trembling, they either drop where they are and mess the place, or stagger through the doorway to their carriages and do it there, or at their homes with more modesty and comfort.

Some there are, no doubt, who avoid falling into this error; but they form the exception to the rule.

Well, to continue. Letting alone the unnatural slumber into which these occasional boozards fall after a debauch, with their lungs half performing their duty, they awake in the morning with every organ in their body thoroughly congested and their nerves all enervated. Their head is aching, their sight, before which dust-coloured dark spots dim, their hearing dull, their liver and their kidneys inactive, their pulse, feeble, their respiration sluggish, their temperature below the normal, the veins of their hands and feet all swollen and distended to their utmost, with an abnormal quantity of waste material waiting to be burnt off and removed from the system, and their appetites gone.

After some hours a slow fever sets in—a fever owing its origin most probably to the fermentation of the waste material in the blood—whose subsidence marks the beginning of recovery from all ill-effects.

The occasional drunkards are therefore exposed to a very grave danger. They are, with the œnomaniacs, the most prone to fall into that deranged state of mind and body known as *delirium tremens*: by suddenly getting drunk and as suddenly quitting drink, such individuals become predisposed to this affection.

But this danger, the cause of which may be ascribed either to an abnormal fall in the temperature of the blood, or to the fever spoken of above, can always be averted by light nourishing food, taken in small quantities at intervals. An exhausted system always needs fresh food, and this is especially so in the case of him who has just awaked from a drunken sleep. The ill-digested food of the previous night is not food to his system, but poison. His digestion has been so hurried by the alcohol, that its ultimate products are unfit for assimilation. The unusual quantity of fat present in the blood of drunkards proves this, instead of the fat being in a fine state of division, it is coarse, and therefore less easily oxidisable. What must be the state of the other products! Fresh food therefore becomes absolutely necessary, but this time without alcohol. Its orderly digestion, though slow at first, will strengthen the natural resources of his system and so avert the "*horrors.*"

Now comes another class of drunkards. Out of the ranks of the occasional, spring the œnomaniacs—men who drink as soon as they are seized by an impulse to do so. The craving suddenly seizes them; down goes the liquor, glass after glass, in quick succession, vomiting ensues, almost immediately after down goes another glass, and the booze is resumed and kept on for days and days; till the individual completely muddled and seized with an entire disgust for liquor, recalls himself to his duty in life. Up to an indefinite period after this he remains trustworthy and sober, not allowing even a drop to pass his lips, till his evil genius once more leads him to the threshold of the tavern and once more steeps his senses in liquor, this time more thoroughly than the last.

Such a man, sir, will come to such a pass in life as to be thrust into the Government workhouse, after having pawned even the last good rag to his back.

There, in the workhouse, he will find much work and ample food for reflection: If he fail within a term of six months to muster up ten solid rupees to show to the authorities in order to regain his liberty, or if he fail to convince them that he has found a situation, he will find himself condemned to undergo a term of imprison-

A merry night to find oneself in.

No man knows the insidious nature of alcohol till he has learned to know it; and then, as is often the case he will find that his knowledge comes too late. So boast not of thyself, O man, whoever thou art, by saying that one glass of wine is enough for thee: the day may yet come when ten will not suffice thee!

But where is the good of preaching: it is just as well to advise the devil to turn over a new leaf, as to ask a man to mend his ways.

Last of all comes the constant class of drunkards, consisting of those who are continually fuddled with liquor, beginning betimes in the morning and leaving off late at night.

The systems of these men have fallen into such a state, that they cannot do without alcohol.

Their digestive powers have become so impaired, by alternate stimulation and depression, that they would entirely cease to act, were it not for the alcohol. It is clear therefore, from this, that a time will arrive when no amount of alcohol will any longer rouse the digestive powers, when not even croton oil will stimulate them to action, and when the hapless victim will die of starvation! God help such individuals!

They are generally a quiet and silly set of men, moving callously through life; while the occasional drunkards, under the influence of liquor, are boisterous and unreasoning.

It is safer to be in the company of the former set of men than in that of the latter, where the even beauty of one's face is in constant danger of being marred.

The occasional drunkard is always in greater danger of coming to sudden grief than the constant.

If the constant drunkard possesses a big brain, as in most cases he does, he will still have that spirit left within him to go and do his duty, but the occasional drunkard, never.

The constant drunkard is a man to be pitied, not despised. Many are the resolutions that he makes to quit the evil habit, but his besetting sin is too great for him to overcome.

He is a slave to the habit, and it is as easy for him to regain his freedom from the curse, as it is for a man, condemned by the highest authority to pay the full penalty of the law, to escape.

Men who are given to using their brains or their hands overmuch are most apt to indulge in a fondness for alcohol, the worn muscle is strengthened thereby, and the tired brain is roused; but extra compensation must be made afterwards for such expenditures of force. The tired muscle no doubt will be strengthened, and the weary brain roused to renewed energy, but the next day a larger quantity of alcohol will be necessary to produce the same results at the same time, or more rest will become imperative.

Hence the insidious nature of alcohol.

It offers itself as a specious renovator to the weary mind and the tired body. Avoid it for its insidious nature and you will find fitter, happier, and stronger for it, let some take it, and the time may yet come when you will find that you cannot do without it; when your morals shall go to the dogs, and your strength and your substance be counted for nought.

How does it act upon the system? In a most unnatural manner. Not only does it upset the stomach, not only does it lead to atrophy of the liver, not only does it interfere with the regular secretions of the digestive juices, not only does it overwork the kidneys, not only does it finally make the blood less coagulable, not only does it intensify the beating of the heart, not only does it excite the brain, and the whole nervous system to extraction, but it also deprives the system of its proper share of oxygen.

The loss of appetite the next day, and the unhealthy congestion of every important organ of the body proves this.

The alcohol, surrounding the waste and fatty products of the blood, as it is swept into the lungs, is burnt off first on account of its greater appetite for oxygen; what little oxygen remains is left to do its best with the waste material of the blood; in consequence, much of this material is left unburnt; and as the exhaustion of the lungs through overwork increases and the supply of oxygen grows less and less, the alcohol alone burns and the waste material, unburnt and increasing in quantity, is allowed to circulate freely through the blood, poisoning that most important fluid and rendering it almost unfit for the maintenance of life.

Gradually as time rolls on and the practice is kept up, the waste products begin to accumulate about various organs of the body, being deposited there as fat—fat within the heart, within the kidneys, within the liver, within the tissues of the abdomen, and in fact, everywhere, but in the right place.

And as the weakness of the lungs increases more and more, and the oxygen inspired grows less and less, the alcohol, not being entirely oxidated, circulates through the system and begins the task of depriving the arterial blood of most of its oxygen, thus diminishing the supply needed for the support of the muscles, and setting up that diseased state in a muscle known as fatty degeneration.

But the above is not all that happens. The brain and the nervous system also suffer, and insanity or paralysis may result—the victim may get permanently mad, or the powers of some important limbs or members of his body may get entirely paralysed.

But nothing can be compared to the damage done to the lungs, the source and well-spring of life. By continual drinking, they, with their mortary muscles, become weaker and weaker, till at last they are scarcely able to perform the most important duty assigned to them, that of keeping the individual in life and health and of taking care in a manner of all the other organs in his body. Take care of your lungs, and your system, in all its parts, will take care of itself! All the evils, to all the

[illegible] by alcohol!

[illegible] you know not where your weakness lies; alcohol unfailingly finds that out for you. It [illegible] every weakness of mind or body with which [illegible] be afflicted, although you may not know it.

[illegible] one glass a day will do you no good, those two or three glasses a day will do you no good, those occasional bouts will do you no good, and that continual [illegible] will do you no good.

Take a glass, and your minds are dim and your bodies strong, insensible stupefaction and bodily weakness will be engendered; add, if alcohol can have such an effect upon a firm mind and a strong body, its final effect upon an exhausted mind and exhausted body must be disastrous.

Alcohol acts upon the organism like a most insidious disease, by depriving its various parts of their due share of oxygen, thus rendering them almost unfit to perform their several duties. In their endeavour to acquire a sufficient quantity of the vitalising fluid, their actions become labored, with the result that weariness soon follows. Oxygen gas, administered occasionally for five minutes at a time, by thoroughly arterialising the blood, will alone overcome this evil; the actions of the various organs will become less labored, and the work of life will be carried on at a more leisurely pace, the evils attendant upon alcoholism will gradually disappear and the craving for liquor will soon cease to exist.

The air that we breathe is mainly a mixture of oxygen and nitrogen; if, in disease, the reception of this nitrogen into the air cells can be prevented, the capacity of those cells for oxygen will be more than doubled; the administration of pure oxygen gas then will diminish the labor attendant upon respiration and set up a like action in all the other organs of the body.

No more need be said now on this subject. It is to be hoped that all those who are prone to tippling will ponder over these words in their hearts, and will finally each join with me in saying with Slender, in the "Merry Wives of Windsor." If I be drunk, I'll be drunk with those that have the fear of God, and not with drunken knaves:" in other words, I'll go and get drunk with the godly !!!—Alas!

NATURE OF THE NIGHT TERRORS OF INFANCY.

The condition described under the name of night terrors is merely a manifestation of infantile neurasthenia, and is principally observed in nervous, irritable, and impressionable children, whose sleep is light and restless, and who are easily disturbed. It is one of the manifestations of want of nerve control, resembling in this respect the nocturnal incontinence of urine. Under these circumstances, with a badly balanced nervous system, the least excitement, which would have no effect on a healthy subject, will suffice to provoke a dream full of the most terrifying suggestions. Another point of resemblance with neurasthenia is furnished by the headaches, palpitations, and easily induced muscular fatigue which the subjects of these conditions show. In a certain number of these cases the children manifest evidences of hysteria, of hypochondriasis, and ultimately some few develop epilepsy. The treatment in this case is that advocated in neurasthenia, namely, dietetic and hygienic. If the child should suffer from insomnia, he should not be compelled to go to bed; suitable drugs, such as the bromides and chloral, may be administered.—*Edin. Med. Jour.*

A MIRROR OF [illegible]

LIVER ABSCESS: [illegible] DRAINAGE;

By Surgeon-Major H. [illegible], I.M.S.,

Irregular Force [illegible]

Girdhari Mina, sepoy of [illegible], aged 22, a youth of good build and constitution, had in the past had no other slight eczema in August last. His history whatever of dysentery. He was admitted on 21st October 1895 with a small abscess on the back of the right hand, just severe enough to procure his admission to hospital.

The next day, 22nd October, his evening temperature ran up to 102·5 and continued with slight remissions for eight days. Previous to admission he had had no fever. (It may as well be mentioned here that there is no connection, as far as is known, between the abscess of the hand, which healed in a few days, and the subsequent liver abscess).

On 24th October, he complained for the first time of pain along the lower border of the liver. Examination showed no enlargement or tenderness of that organ. Fomentations were applied and quinine in doses of 5 grs. administered during the remissions. His temperature fell to 99° on 31st October and continued below 100° until 10th November. From this date until 30th November his temperature chart shows evening rises to 102°, 103° and on two occasions to 104° with morning falls to 101°, 100° and 99°. On no occasion have rigors been present. During this period his general health has been fairly good; he has complained of no pain, and with exception of the nightly fever of no discomfort

Present state, 30th November.—No pain anywhere; feels fairly well except for nightly fever, tongue clean, moist; appetite fair; bowels open daily, sometimes loose, sometimes bound; always pale in color; no cough or chest symptoms. Physical examination of chest reveals nothing special in abdomen; some enlargement of the liver, which since 10th November has been neither painful nor tender, is observed for the first time. Upper border of liver dulness reaches to 5th space in right nipple line; lower border, which can be distinctly felt, reaches two inches breadth below the costal margin.

15th December.—Patient continues to have nightly fever without rigors reaching 101°, 102°, or 103° and falling to 100° and 99° in the mornings. His tongue continues clean and his appetite good, but the prolonged fever for nearly eight weeks is telling on him, and he is looking thin and anxious; pulse 88; or so in the morning.

19th December.—For the last three days he has had pain and tenderness over the liver. The pain is of a stitch-like character, and there is marked tenderness in the flank and over the lower ribs. [illegible] signs. Diagnosis changed to "liver abscess."

20th December.—The 7th, 8th, and 9th intercostal spaces in the anterior and mid axillary lines show slight fulness compared with the opposite side, though there is no distinct bulging.

21st December. Operation (by [illegible]). *Diagnosis, Hepatic Irregular Fever.*—Patient's flank having been well scrub-

[illegible] chloroform, the [illegible] aspirator needle was introduced in the 7th intercostal space in the mid axillary line, where the fulness was most absolute, and thrust gradually inwards and slightly upwards into the liver. When the whole of the needle (4 inches) had been inserted, curdy chocolate colored pus escaped into the air-exhausted bottle. The needle being left in, a 2-inch incision was made directly over the 7th rib in proximity of the guiding aspirator needle; the rib was cleaned with a periosteum elevator, cut through in two places with a bone forceps and an inch of the rib removed. The needle being still used as a guide, the pleura and diaphragm which appeared adherent to the outer surface of the liver was next cut through. The knife being discarded, a closed polypus forceps was thrust through the liver substance along the border of the aspirator needle till the abscess was reached. No hæmorrhage occurred. The blades of the polypus forceps were fully expanded, the needle withdrawn, and the hole dilated with the finger. Eighteen ounces* of dark chocolate colored pus escaped. The cavity was next explored with a long silver probe, and was found to extend backwards and downwards in the substance of the right lobe.

A large sized india-rubber drainage tube was slid over the guiding probe; the probe withdrawn and iodoform dusted over the wound. The side was well packed with salicylate wool, and fastened with a broad body bandage. Patient stood the operation which lasted a quarter of an hour, well. In three hours the discharge had come through and he was again dressed as before. Evening temperature 100·5.

22nd December.—Evening temperature 100 only; much pus from tube; tongue clear and moist; bowels regular.

After this he was dressed every day; about one or two ounces of thick stringy chocolate colored pus escaping at each dressing. On 10th January temperature went up to 102°, pulse 100, rigor 24. Salycylate wool discontinued and wound dressed daily with tar tow. Tube shortened.

15th January.—Temperature ran up in evening to 103. It now appears that as the abscess extends into the posterior portion of the liver, that the incision was made rather too anteriorly to insure perfect drainage. To remedy this the patient is made to lie on the right side and sometimes in the prone position.

25th January.—Patient is much better. Pus escapes freely, and is becoming thinner in consistence and not so dark colored. Throughout the case the wound has continued perfectly aseptic; the cavity has never been syringed or washed out. The skin around has been washed daily with soap and water, smeared with carbolic lotion and iodoform has been blown into the wound. The tube has been taken out and washed daily. Since operation has been fed on milk 6 lb. daily, soup and later bread and vegetables, port wine ℥iii. daily.

28th January.—Over the 8th and 9th ribs in the mid axillary line a cracked-pot note is obtained by percussion over a limited area behind the wound corresponding with the abscess cavity.

* [illegible]

[illegible] very slow. A [illegible] tube has been substituted. Temperature 98 or 99 every morning, rising to 100 or 100·5 every evening since 15th January. Patient's general health is much improved. He can now walk about, is getting fatter, appetite good, bowels regular. Throughout the case he has been cheery and hopeful.

3rd February.—Pus about ʒi. daily and has assumed a creamy appearance. Temperature 99·2 in evening.

27th February.—No discharge. Tube taken out, condition of patient excellent. Putting in flesh.

3rd March.—Wound quite healed. Patient perfectly well. Sent on two months' sick leave to regain strength for duty. Since return from sick leave he has been perfectly well and has performed his duties as a soldier perfectly and is now one of the strongest men in the regiment. (July 1897.)

This case shows the history of a liver abscess "ab initio."

The symptoms and signs were obscure for six weeks, nothing but continuous nightly fever, with no liver symptoms except some slight pain for a few days. Also shows value of operation of incision and full drainage as soon as the diagnosis is established and presence of pus proved by the needle.

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CHRONIC OTORRHŒ, FOLLOWED BY BRAIN ABSCESS AND DEATH.

By N. C. Chatterjee, L.C.M.S.

Medical Officer, E. I. R. Hospital, Madhupur.

On the 10th of December 1895, Mrs.——aged 26 years, at the time 5 months pregnant, had a severe fall, hurting herself very much. Shortly after, she complained of severe pain in the small of the back and a sort of catching pain on the left side of the lower abdomen. She had miscarried once owing to a somewhat similar fall during the third month of pregnancy. On examination, I found nothing to be anxious about. I advised her to stay in bed as long as the pain lasted, and directed belladonna to be applied externally over the small of the back. I further noticed that her right ear was running and that she was a little hard of hearing in that ear. Being questioned about it, she said that it was chronic and used to appear and disappear at intervals. She had taken medicines for years while in England but without any relief. I tried to persuade her not to neglect it, but it was of no use; she was tired of trying different measures. On the 20th of the same month I was again called in and was told that pain, &c., consequent on the fall had entirely disappeared but that the right ear had been paining fearfully during the last four days. The canal of the ear, on examination, was found completely blocked up with thick white matter, which was very offensive. It was with great difficulty removed by syringing with a solution of Condy's fluid and tepid water. Equal portions of boric acid and iodoform were blown into the ear, which was then stopped with boric wool and

headache. This followed her to some extent, the pain and discharge were decidedly less on the following morning. The same treatment was continued, and on the fifth there was neither pain nor discharge. The auditory canal being normally dry, the bandage was kept on, but the blowing in of the powder was discontinued owing to the severity of the pain and consequent weakness. The patient was, on the 20th, advised to lay up in bed again. At 6 A.M. on the 25th a lady called for me in great haste and said that Mrs.——had just fainted, previous to which she seemed to have had an attack of ague. I found the patient in a strong fit of ague. She was conscious but could not speak. By signs she expressed that she was in great agony, severe fixed pain in the back and right front of the head. Shortly after the rigor stopped, but vomiting started, the slightest movement made the pain unbearable and the vomiting worse, though it was not preceded by any sick feeling. The right ear, which was quite dry the day before, was found filled with non-offensive purulent discharge. I was at a loss to understand how this change had come about so suddenly. The husband said that his wife thinking herself all right, did not stay in bed after I had left, but had been busy in arranging things to receive some friends who were expected the following morning. At 3 A.M. she went to bed but could not sleep on account of headache.

The symptoms led me to conclude that neglect and carelessness on the part of the patient had not only brought on a relapse but had implicated the brain As inflammation of the brain often ends fatally, a couple of European doctors were at my suggestion brought in for consultation. After seeing the patient, they agreed with me as to the course of treatment given.

At 8 A.M., on the 25th, the temperature was 100·6, pulse 120, soft and weak, bowels bound, extremities cold.

Treatment.—The bowels were at once moved by soap water enema, but did not serve the purpose properly.

1. Liq. Ammon. Acetatis ... ʒii.
   Spt. Æther Nitrosi ... ... mxx.
   Potass Bromidi ... ... gxxx.
   Aquæ Camphor ... ... adʒi every 3 hrs.
2. Black Draught ... ... ʒiss. at once.
3. 5 Large leeches on the right forehead and temple.
4. Hot water bottles to both feet.
5. The ear was dressed as before. Complete rest in bed: the room was kept as quiet as possible.

At 1 P.M. temperature 101, pulse 120. Leech-bites were allowed to bleed. Had one semi-liquid stool, headache much the same.

Diet, milk and Brand's essence of chicken.

4. P.M.—No improvement, in much the same state.

8. P.M.—No improvement, in much the same state.

The next day she was taken to the General Hospital, Calcutta, where she died on the 29th December 1896. Post-mortem examination revealed, as I learned afterwards, that she had a suppurative abscess in the cerebellum.

GUNSHOT WOUND OF HEART.*

By Surgeon-Lieutenant-Colonel A. T. Sloggett, A.M.S.

Senior Medical Officer, Alexandria.

At the Musketry Camp at Aboukir at 11 A.M. on September 22nd 1897, a corporal on duty as a marker in the mantlets at the rifle range was struck by a splinter of a bullet (Lee-Metford), which is supposed to have splashed back from the target. The man was sitting in a stooping position at the time, with his arms crossed and resting on his knees. On feeling himself wounded (he afterwards said it seemed as if someone had hit him with a whip on the chest), he got up, and, quite unaided, walked a distance of some 600 yards to the camp, which he just managed to reach when he fainted, and was carried to the hospital tent in a state of collapse. The medical officer in charge of the camp saw him immediately, and found that there was a wound of the chest situated between the fourth and fifth costal cartilages, 2 inches to the inner side of the left nipple.

On examination the external wound was found to be semilunar, ¾ inch long and ¼ inch wide, with clean-cut edges. On carefully probing the wound was found to lead into the thoracic cavity; no trace of a bullet could be detected; hæmorrhage was free.

The man recovered consciousness after about an hour but was extremely weak, and suffered from hiccough, nausea, and frequent vomiting. He was kept absolutely quiet, and everything possible was done to keep his strength up, but he gradually sank, and died at 1 A.M. on 28th September.

At the necropsy the chest was carefully opened. The pericardium, which was adherent to the chest wall, was perforated, and the pleural cavities was partly filled with blood. The portion of the bullet which caused the wound was immediately found embedded to the depth of about a quarter of an inch in the wall of the apex of the right ventricle of the heart, its exact position being about three-quarters of an inch above the apex. It had not perforated the cavity. The part of the bullet which had caused the wound was the cupro-nickel casing, which had evidently stripped off on striking the target.

* Reproduced from the *British Medical Journal* by request.

THE

Indian Medical Record.

15th February 1898.

THE INCREASED MORTALITY FROM "FEVERS" IN THE TOWN OF MADRAS.

The Sanitary Commissioner's Explanation.

(Continued from page 207, Vol. XIV.)

In our last issue we gave our reasons for differing with the opinion of the Sanitary Commissioner of Madras, that the increased mortality from "fevers" in the town of Madras was caused by fluctuations in the subsoil water level and the consequent "alternate admission and exclusion of air from the soil."

We will now proceed to the consideration of another point of equal, if not of greater, importance.

We have seen that this increased mortality attracted so much attention that the Government of Madras called for an explanation of its cause, presumably with a view to consider what steps it might take to stamp out the disease to which the increased mortality was due.

Now it is obvious that before taking steps to prevent a disease it is necessary to understand its etiology, and it is equally obvious that, before investigating the etiology, it is necessary to know the precise disease with which we are dealing.

Here, however, there is a difficulty; the increased mortality has been from "fevers," true, but what are fevers?

When we come to inquire into this point, we find that it would be easier to say what are *not* fevers than what are.

The classification of disease amongst the ordinary population of Madras is primitive. We do not say that Madras is peculiar in this respect, nor do we venture to suggest that such a classification has the approval of that august body the University of Madras; but primitive it certainly is.

All diseases are returned and classified under six heads viz., cholera, small-pox, fevers, dysentery and diarrhœa, injuries, and, all other causes; this is simplicity itself, and is probably as much as one can expect in the present state of affairs. Unfortunately this simplicity, so estimable in many ways, leads to endless complications and murky obscurity where the conduct of etiological investigations is concerned.

We have reliable authority for the thing that when on two occasions deaths returned as due to fever were investigated, in one case, only 23 out of 77 and in the other 41 out of 150 were found to be really due to the cause assigned.

There is here, as everyone must admit, a very large margin for error; and it is evidently a common thing, and as instances do unavoidable, where there is no such thing as positive diagnosis, to return a large number of deaths under the heading of "fevers," which are not fevers of any kind or description.

We have them under this heading of fevers "a medley of disorders differing more or less in symptomatology, pathology and aetiology, and now it is proposed to pick out with any certainty the exact diseases or diseases, which has or have caused the increase in the mortality?

This is a difficulty which Dr. King himself realises. He says:—"I pointed out that the so-called "fevers" of Madras are not solely of one malarial variety," and again "I have further suggested where it is possible to register deaths in Madras correctly in accordance with medical nomenclature, I have no doubt that a very great deal of the so-called "fevers" from which persons die in Madras will be found to be due to malaria."

Dr. King recognises the difficulty; how does he deal with it? His method, like the classification of diseases, is simplicity itself. He cuts the Gordian knot by assuming that malarial fevers are responsible for the increased mortality, or at any rate that they are responsible to such a large extent, that all the other items may be neglected.

Presumably then he gives good and sufficient reasons for this course! On the contrary, he gives us no reasons at all, unless the following somewhat unnecessary proof of the existence of malarial fevers in Madras has a claim to this distinction "Lately," he tells us, "29 cases of indubitable local origin and presenting symptoms of malarial fever were systematically investigated with the result of his (Surgeon-Lieutenant-Colonel Bruhns) demonstrating *in each instance the plasmodium malaria* (the Italics are his). This fact suffices to prove that true malaria exists in the city."

This proof we could have done very well without, for the fact has, we believe, been long past dispute. What we want is some proof that malarial fevers are responsible for the increase in the mortality, and we cannot keep thinking that Dr. King jumped so readily to the conclusion that malaria was to blame in order, that he might air his views on the subject which we will notice later on.

In an inquiry of this kind, we hold that it is the first and most obvious duty of the enquirer to ascertain the exact disease which is in fault, and to produce in his report evidence in support of the selection he has made; and that if he omits to do this, his subsequent conclusions, based as they are upon unknown premises, must appear to the reader void and useless.

Dr. King has not done this He has acknowledged the difficulty, but he has avoided it. He has constructed a curve showing the monthly mortality caused by a mixed and unknown numbers of diseases, differing amongst themselves to an unknown extent. He has then compared this curve, with a curve showing the level of the sub-soil water, and has pointed to an imaginary connection between the two, and on this he has based the explanation he has given to the Government of Madras.

A more illogical or unconvincing procedure could not well be imagined.

As we have said before, he considers malarial fevers to be the cause of the increased mortality. No one will deny that these fevers are prevalent in Madras, but many, may with good reason, doubt their giving rise to an excessive mortality: in fact a scrutiny of the returns for the five years 1891 to 1895 shows that their mortality was only 0·76 per 1,000 amongst the prisoners in the Madras Penitentiary, and 1·02 per 1,000 amongst

the Native Troops stationed in Madras; the corresponding admission rate was 201 per 1,000 and 100·5 per 1,000.

Amongst the Native troops, then, there were 100 admissions and one death per 1,000; at the same mortality rate to give a death-rate of 15 per 1,000 (as it was in 1892 among the general population) there would have to be 1,500 admissions per 1,000.

Thus to produce the number of deaths that were registered in 1892. Every inhabitant of the town of Madras must have had an attack and a half of malarial fever, or every two of the population must have had three attacks between them, which is incredible.

Of course the mortality rate might be higher amongst the general population than it is amongst the troops, as that of the troops is higher than that of the jail population, but if so, we would like to know to what cause it is attributed.

Not at all satisfied that malarial fevers are so much in fault as Dr. KING maintains, and not finding anything in his Report to convince us, we turn once more to his own diagram J, which is very useful and comprehensive.

We now observe a very curious and very remarkable thing; it is this: the curves showing the monthly mortality from malarial fevers, which are fairly regular throughout the ten years of the first or low fever period, undergo a complete change of type in the six years of the second or high fever period.

Throughout the first period the fever curve has, with marked regularity, its maximum in either January or December, except in the case of 1883 and 1887, when there was a slight variation; the maximum in the former being in August and of the latter in July; in 1885 there was also a January and December rise; these were absent in 1887. The year 1887 therefore was the only year in which the January and December rise was not present.

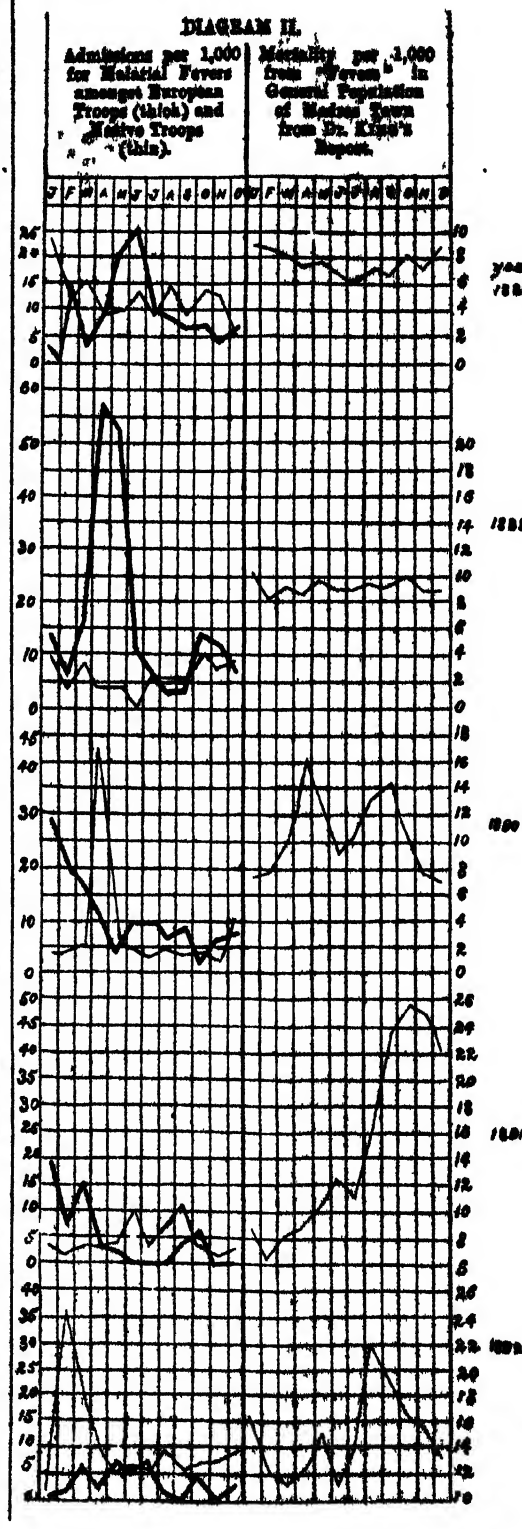
When we come to the second period, we find a totally different aspect of affairs; here the January and December rises are conspicuous by their absence; while we have the maximum, and a very marked maximum it is, in August in 1892 and 1893; in October in 1891 and 1894; and in September in 1895 and 1896. The year 1890 is a complete metamorphosis from the old type; in it the minima are in January and December, and there are two well-marked maxima, one in April and the other in September.

Now what is the import of this? Malarial fever is admittedly a seasonal disease, which pursues from year to year a fairly uniform course, and varies but slightly as to the time of its maximum prevalence. This at any rate is what is observed in most places. Is Madras exceptional in this respect? And if it is, will Dr. KING kindly explain to us the reason?

Out of this another question arises, if malarial fever has altered its time of prevalence amongst the general population. We might naturally expect the same thing to happen amongst the other inhabitants of Madras, has this occurred?

Now in Madras there are three different bodies of men whose statistics are reliable. We have thus ready to hand a sort of control experiment, these bodies are the European and Native troops and the prisoners in the Penitentiary. Has their fever season altered in the same way?

In order to test this, we have constructed the following diagram, which shows the monthly admissions per 1,000 for malarial fevers amongst European and Native troops, side by side with the mortality curves taken from Dr. King's Report for the years 1883 to 1892, inclusive:—



This diagram shows that the marked change in character, which may be noticed in Dr. KING'S mortality curves from 1890 onwards, has no counterpart in the curves which represent the incidence of malarial fevers amongst the European and Native troops.

From 1890 onwards the mortality of the general population has its maximum in the latter half of the year, in marked contrast to the curves for the troops, where the incidence throughout tends to accumulate in the first half of the year.

There is a striking difference in the mortality curve from 1890 inclusive, no such difference occurs amongst the troops.

Are we justified in drawing the conclusion that the increased mortality amongst the general population in the second period was coincident with some disease-causing influence which affected the general population, while the troops were exempt from it? There is certainly some reason for the assumption.

This malevolent influence, according to Dr. KING, was sub-soil water fluctuation, etc., but it is hardly possible that it could affect one portion of the population and spare another.

Our own observations pointed to the coincidence between a low sub-soil water and a high mortality from "fever," and Dr. KING contends that a high sub-soil water is healthy in Madras; now in order to substantiate the important rôle that has been attributed to the sub-soil water, it is necessary to prove that the troops had a high one, while the general population had a low one.

If it can be proved that the places where the troops are stationed suffered neither from sub soil water fluctuations nor from a lowering of the sub-soil water level, well and good; but if not, the case against the sub-soil water breaks down.

And indeed everything appears to point to the fact that if a satisfactory explanation is to be given, something more than sub-soil water fluctuations, etc., must be found.

The interest of the diagram we have been discussing is however not exhausted, it is ready to give us some further information. We have mentioned that the highest mortality from fevers was attained in the year 1891 and 1892; the diagram shows us that there was no corresponding increase in the admission for malarial fever amongst the troops. In fact they were actually less during these two years than in any of the others.

This again is contrary to Dr. KING'S opinion that there was a great increase in malarial diseases in Madras, and to sift this question further, the question if there is any evidence to show that there was actually a great increase in malarial fevers in the second period, we have constructed the following table showing the admissions for malarial fevers, and for all causes per 1,000 amongst the Native troops and amongst the jail population; the average annual strength of the former being about 1,500 and of the latter about 600.

TABLE I.

Showing the admissions per 1,000 for Malarial Fevers and for all causes, amongst Native Troops and Jail Population in Madras Town, for sixteen years, 1880 to 1895.

Year	Native Troops.		Jail Population.		Year	Native Troops.		Jail Population.	
	Admissions per 1,000 for malarial fevers.	Admissions per 1,000 for all diseases.	Admissions per 1,000 for malarial fevers.	Admissions per 1,000 for all diseases.		Admissions per 1,000 for malarial fevers.	Admissions per 1,000 for all diseases.	Admissions per 1,000 for malarial fevers.	Admissions per 1,000 for all diseases.
1880 ..	668·1	1879·0	180·8	609·0	1888 ..	148·0	700·0	147·1	541·8
1881 ..	804·6	1162·7	119·8	449·1	1889 ..	82·6	502·5	127·7	612·4
1882 ..	144·9	730·7	144·4	649·0	1890 ..	152·8	494·8	80·6	506·6
1883 ..	134·6	672·8	103·7	707·4	1891 ..	61·2	422·7	87·2	672·1
1884 ..	110·7	606·0	42·5	617·4	1892 ..	139·2	477·4	127·2	703·9
1885 ..	76·6	482·0	71·7	560·0	1893 ..	44·7	389·1	176·6	679·7
1886 ..	141·2	609·7	132·6	721·9	1894 ..	69·4	367·1	203·7	1270·6
1887 ..	268·6	838·3	134·1	663·6	1895 ..	206·4	559·0	434·4	1153·6

We cannot claim absolute accuracy for this table; owing to alterations from time in the returns and in the nomenclature, it has been difficult to compile, it can only be taken as approximately correct.

Simple continued fevers are included with intermittent and remittent, as malarial throughout in the case of the jail population.

The amount of accuracy obtained is however quite sufficient to establish the fact, that amongst the jail population there was no sudden increase in malarial fevers in 1891, and that in this respect the jail population resembles the European and Native troops.

It is evident then that if there was this great increase in malarial fevers in Madras, it was limited to the general population, but we can find no sufficient evidence that there was.

We have now shown that Dr. KING'S explanation, that the increased mortality was "due to conditions of moisture and alternate air admission and inclusion following fluctuation of the sub-soil water" is untenable, and that there is no evidence in support of his contention that malarial fevers were responsible for the increased mortality.

Malarial Theories.

Here we will leave this matter and turn our attention to Dr. KING'S malarial beliefs. These are sufficiently varied, and have for foundation the sandy soil of sarmise.

Dr. KING believes that the malarial germ is in the soil. "I hold," he says, "that the soil of Madras contains the malarial germ.' We have known many men who held the same notion, and we have also heard of men who believed in black magic and astrology, but we have never found any justification for these beliefs.

The germ, according to Dr. KING, is "presumably the plasmodium malariæ." Well the plasmodium is a fertile

[illegible] that notwithstanding many difficult [illegible] have yet to be unknown, and only vaguely guessed at, we think it would have been better to have maintained a dignified reserve, and to have left it in its proper place, the laboratory, instead of dragging it out to figure in a Government Report.

Still more startled are we to find the "Mosquito" theory occupying a prominent place; in fact the most prominent place in the Report. We are told that it is popular in Madras. No doubt there are reasons why it should be, but if so, the "Benighted Presidency" is going a little too far ahead, for to the rest of the world it is far out of the range of practical medicine, and is in a very nebulous state indeed. It is quite out of place here.

Again Dr. King talks of "Conditions that have rendered the propagation of the malarial germ in a soil already infected with it markedly active." Oh happy germ! as the student said of the sparrow, but what in the name of common sense does it mean? What does anyone know about the habits or methods of propagation of the malarial germ, plasmodium malariæ or any other?

This kind of vague, high sounding, but meaningless talk is getting a little too common, when we hear stuff of this kind we are always inclined to think the author of it does not know what he is talking about. For our part we are quite tired of it, it is too much of a strain upon our mental organism. We are not constructed for such flights of imagination, much rather would we have a few simple facts.

But Dr. King is, perhaps unwittingly, the author of an entirely new doctrine of malarial fever, *viz*, that it is a filth disease. He lays particulars stress upon the presence of filth in the soil of Madras town, and tells us that it is the pabulum of the germ Now it is almost universally held that malarial fever is a rural and not an urban disease, that it shuns, as much as possible, the thickly crowded haunts of men and loves the country air as much as any of us

Lastly, we would like very much to know from what observed facts the following statement is deduced.

"I consider that, given the germ of malaria, its virulence is liable to undergo modification owing to its propagation under conditions that vary with the amount of organic filth and moisture available for its pabulum."

Dreams, vain dreams, but we rest easy in the conviction that like Joseph the Government of Madras can interpret them and assess them at their proper value.

DYSENTERY AND TROPICAL ABSCESSES OF THE LIVER.

Sir[illegible] Bonn originated the idea that dysentery was the cause of tropical liver abscess, much has been written on the subject and many conflicting opinions recorded. Indian observers have been chiefly remarkable for differing from Bonn, and denying the connection.

Dr. C. W. Wimpeos, in the pages of the *Lancet*, 4th and 11th December 1897, gives an admirable resume of the views current at the present day.

A special form of dysentery has been studied, notably by Osler, Councilman, Lafleur, and [illegible], to which the name amœbic dysentery has been given.

"This variety does not present many variations in symptoms from catarrhal or follicular dysentery, but differs essentially in its morbid anatomy and also in showing amœbæ in the stools. Osler describes the condition of the intestine as being swollen, soft and edematous, with numerous ulcers of varying shape and depth. There is great undermining of the mucous membrane which may extend into the submucous tissue; the ulcerations of the mucosa may contain mucus either clear or opalescent. The ordinary signs of purulent inflammation are not present. On examination of the stools there is a striking absence of pus cells but shreds of necrotic tissue are abundant. The characteristic feature is the presence of large numbers of actively moving amœbæ coli."

Councilman and Lafleur hold that the amœba coli is the cause of this form of dysentery, and that this is the form of dysentery which is so frequently associated with tropical liver abscess.

They state in fact that the amœba coli is the special cause of a definite variety of dysentery, and also of tropical abscess.

Certain precautions have to be taken in searching for the amœba in dysentery and abscess cases, on this point Dr. Windsor says regarding the latter:—

"When examined in the ordinary way in addition to the ordinary constituents of the pus a certain number of large round bodies, considerably larger than white corpuscles, are seen containing a number of red blood cells and an indistinct nucleus. The ground work under a low power looks granular, but on focussing a large number of vacuoles are seen. On staining with logwood the nucleus becomes very apparent but the vacuolation is not so distinct If no other steps be taken in the examination of the pus, nothing further will be made out with regard to these round bodies. But if, on the other hand, the pus be kept at a temperature of 100° F. from the time of its removal from the body (either from an exploration or from the fresh drainings from the wound after the abscess has been opened, or from the freshly collected sputum in those cases in which the abscess has burst through the lung) and examined upon a warm stage, these bodies undergo a most remarkable series of changes. The method that I have adopted is to collect the fresh pus—particularly that of a yellow color—in a warmed test-tube which is then placed in a vessel containing hot water, the pus will then be kept warm and can be examined on a warm stage almost at one's leisure. The changes about to be described have been observed after the pus has been kept in this manner for twenty-four hours. A very handy and simple warm stage can be made out of a strip of copper 14 in. long and 1 in. wide, the lower edge being bent up at a right angle forming a support for the slide; in the middle of the upper a round hole of about 1 in. diameter is cut, through which the light is reflected up from the mirror on to the specimen. At each end of the upper a small right angle bend allows it to rest the whole length of the copper [illegible] upon the slide resting upon it.

[illegible] the fact that the pus evacuated at an operation, or that evacuated at the time of operation, very frequently contains no amœbæ whether living or dead. At the same time the fact will be recalled that the pus found under these conditions is nearly always of the brick-dust color. But if the pus is carefully examined on the warm stage, amœbæ will almost certainly be found on the second or third day, and then, as the discharge diminishes and the pus becomes yellower, amœbæ may be abundant. It thus appears probable that the amœbæ remain near the spreading border of the abscess and not in the older pus in the central part of the abscess. This has been the case in at least four of the seven cases which have come under my own personal observation. I feel sure that if this fact were fully realised and the adequate precautions taken when searching for the amœbæ, many cases which have been declared free from them would show their presence. When examined in the method described the bodies, which in the ordinary examination are round, show most active movements and the greatest variations in shape. These, then, are easily recognised as the amœbæ coli. Owing to the constant movements the size of the amœbæ cannot be stated; but some are large, with a diameter of 60μ; others are smaller, with a diameter of from 25μ to 40μ. Their shape is oval or round in a resting or dead condition, but when actively moving presents great variations. The constant and characteristic feature of these organisms is their capacity for throwing out pseudopodia, it may be in one or in several directions. Under observation a short, thick, blunt-pointed projection appears at the edge of the amœbæ which gradually increases in length by a peculiar flowing movement, the amœbæ itself becoming proportionately smaller. This pseudopodium has precisely the same structure as the main body of the amœbæ. Sometimes it is withdrawn into the body of the amœbæ or its extremity may become fixed, and the whole body of the organism merges into the pseudopodium again. One characteristic of this throwing out of processes is the power the amœba has of enclosing neighbouring cells or particles. One can often see the inclusion of a red corpuscle thus take place.

The structure of the amœba is difficult to make out clearly owing to its hyaline translucent character. There appears to be a well-defined outer edge, although the organism is really a naked mass of protoplasm without a cell membrane. The main body of the amœba may be divided into two parts: (1) an outer clear investment, the ectosarc; and (2) the inner granular looking endosarc. In the latter numerous small vacuoles are seen, not of regular size but occasionally one is seen considerably larger than the others; nothing has been seen of the nature of a contracting vacuole, in which respect it differs from the ordinary fresh water amœba. Situated in the endosarc is the large single nucleus, but this cannot be usually seen in living specimens, but in [illegible] with a little acetic acid or by cold, the nucleus is brought out distinctly on staining with logwood or magenta. In nearly every amœba a variable number of red corpuscles are [illegible]. There may be as many as fifteen or twenty [illegible] in various ways and their overlapping edges help to give rise to the granular appearance of the endosarc. Sometimes dark masses of pigment are seen and the [illegible] are sometimes stained yellow with bile.

What was said about the [illegible] examination of the liver pus when searching for these organisms holds good in this case; even the contact with a cold bed-pan is quite sufficient to kill them, when they assume a round shape, so that they may be quite easily overlooked. Osler says that this variety of dysentery is often fatal, but out of a dozen cases recently under my own observation only one patient has died. Councilman and Lafleur have demonstrated the amœbæ in the floor of the ulcers, in the submucous and deeper layers of the intestinal wall and also in the lymphatic vessels. The pus from a true tropical abscess usually shows a complete absence of pyogenic organisms. And examination of the pus failed to show any pyogenic organisms. Osler expresses the opinion—based upon Councilman and Lafleur's experiments—that the pus of "tropical abscess" (connected with dysentery) is quite free from pyogenic bacteria. On the other hand, Macfadyen holds that in tropical abscesses pyogenic organisms are constantly met with, staphylococcus pyogenes aureus being the commonest, while the staphylococcus albus and streptococcus pyogenes are often found.

This point about the sterility of tropical abscesses is most important. If it can be clearly proved that infective organisms are constantly present and are the essential cause of the suppuration, then there will be little reason for differentiating a special class of abscess of liver; that is to say, all hepatic abscesses will be of an infective nature and the only features specially characteristic of the tropical abscess would be its occurrence most frequently in the tropics, its tendency to be single, and finally a curious connection with dysentery. This latter connection would be quite easily explained by the entrance of the infective organisms from the lesions in the large intestine into the lymphatics or portal radicles and which would so be carried to the liver. On the other hand, if we admit the conclusions of Councilman and Lafleur, supported somewhat by observations of our own cases, as being substantially accurate, the pyogenic character of the abscess would be disproved and it would be necessary to find some other cause for the production of tropical abscess."

We have here a clear and intelligible explanation of a much disputed point, the etiology of tropical liver abscess, which only requires to be more widely confirmed.

India offers a wide field for research of this kind, and we hope soon to have an opportunity of recording the results obtained by Indian investigators of this subject.

There are three important questions to which answers are required: (1) Does this amœbic form of dysentery prevail in India? (2) Does tropical abscess ever occur in its absence? (3) Is the pus of a tropical liver abscess always sterile?

The answers to these questions are well within the reach of hundreds of workers, and for the credit of medical science in India they ought not to remain long without a solution.

THE LIFE AND TIMES OF THOMAS WAKLEY, FOUNDER OF THE *Lancet*.

III.

By the end of 1825 the *Lancet* was a recognised publication of more than two years' standing with a regular circulation of upwards of 4000, and a well-defined policy and range; in its contents, however, two alterations were noticeable; the first was that all matter not strictly medical was excluded; the second an unmistakable tone of hostility towards the hospital officials.

The disappearance from the paper of the weekly columns entitled respectively "The Chess-Table," "The Dramatic Lancet" and "Table Talk" meant more to the Editor than their importance would seem to warrant.

It was the sacrifice of his own hobbies to the pressure of what he conceived to be his wholly absorbing duty. WAKLEY was a great chess-player, and an enthusiastic play-goer. He was one of the few who contested successfully with the original and celebrated automaton player, and it was his custom, when engaged in editing his paper, to have a chess board by his side, on which at leisure intervals he would set himself problems.

The *Lancet* was the first paper to inaugurate the now common custom of publishing chess problems and games. WAKLEY believed that the study of chess was a recreation peculiarly fitted to the mind of the properly trained medical man, and might almost be said to form a factor in the ideal medical education; it is interesting to note that he refers to Sir ASTLEY COOPER as possessing a considerable degree of excellence in this scientific game.

The second alteration was, however, of more importance. Here his intuition and foresight told him that unless he declared absolute and unrelenting war upon those who were attempting to restrict his operations for reform, he would fail utterly and hopelessly.

The war began in the department of the paper that is now known as "A Mirror of Hospital Practice;" the former title which was in use for twenty-six years was "Hospital Reports."

Throughout the first volume the reports were, on the whole, eulogistic, and no word derogatory to the operator ever appeared, while censures were passed upon the conduct of the students, and the necessity of attention and respect to their teacher was urged on them.

The preface to the second volume, however, stirred apprehension; for WAKLEY in it insinuated that the hospital surgeons might have awkward matters to conceal, which it would be his duty to reveal.

Certain hospital abuses were found fault with. Here is one which sheds a light upon hospital management in those days:—

"We understand that persons were allowed to vend porter in the wards of St. Thomas' Hospital and to hawk oranges, tarts, etc., through those of Guy's."

What brought matters to a crisis was the report of a lecture by Sir ASTLEY COOPER in which he inveighed strongly against the prevailing abuse of mercury. "I do say," he said, "that the present treatment of patients * * * * in these hospitals, by putting them unnecessarily under a course of mercury for five or six weeks, is infamous and disgraceful."

Immediately after the publication of this in the *Lancet*, meetings were held and new regulations were come to on the subject of treatment. WAKLEY was naturally jubilant that publication in his paper had brought about this reform; he did not conceal it, and Sir ASTLEY COOPER thought it necessary to state that in his plain-speaking he had not been actuated by any desire to injure the surgeons of the Borrough Hospital "who are the men, gentlemen," he said, "against whom it has been supposed that these observations were directed? Are they men whom I could possibly feel disposed to injure? Mr. TRAVERS was my apprentice, Mr. GREEN is my godson, Mr. TYRRELL is my nephew, Mr. KEY is my nephew, Mr. MORGAN was my apprentice.

Here was a chance for WAKLEY. He rallied Sir ASTLEY COOPER on the nepotism thus naively revealed, professing himself to be convinced that it was impossible that he could be actuated by other than friendly feelings towards such a family party.

That same day, May 2nd 1824, WAKLEY was excluded from attendance at St. Thomas' Hospital by order of the surgeons of the institution. He continued his hospital reports however, still visited the wards and operating room when inclined, and defied the surgeons to prevent him obtaining whatever information he desired.

What had happened did not tend to amicable relations between WAKLEY and the surgeons of St. Thomas' Hospital, Messrs. TRAVERS, TYRRELL and GREEN, who had signed the order for his expulsion, he contemptuously called Ninny-hammers, a nickname hallowed by Sterne, Swift and Arbuthnot, and their proceedings were alluded to in scathing articles under the head of "Hole-and-Corner Surgery."

These articles derived much of their interest and point from the unfortunate interference of Dr. JAMES JOHNSON, at that time Editor of the *Medico-Chirurgical Review*, who sided with the surgeons and argued that "No man can command success in surgical operations, and if a surgeon fail from want of dexterity, he suffers mortification enough heaven knows! in the operation room without being put to the cruel and demoniacal torture of seeing the failure blazoned forth to the public." The remarks of this paper furnished WAKLEY with exactly the kind of object he most relished attacking—a narrow view held by monopolists or their advocates. He combated them with a savage relish of the task, laughing at them and rending them alternately. "This latter," said he, referring to the above quotation, "is so monstrous a proposition that, prepared as we were for the imbecilities of the Hole-and-Corner Champions, we were somewhat staggered at the impudent absurdity with which it is advanced..... Not a scintilla of compassion does the Hole-and-Corner advocate su er to escape him for the victim of the surgeon's want of dexterity; all his sympathy is reserved for the ignorant operator."

The preface to the volume of the *Lancet* published in October 9th, 1824, contained a very serious reflection upon Mr. TYRRELL, which led to an action for libel.

Mr. TYRRELL published reports of the whole of (Sir ASTLEY COOPER'S) lectures, with illustrative cases from his own hospital practice appended.

These lectures, WAKLEY said, were transcribed, errors and all verbatim from the *Lancet* and no acknowledgement given of the source.

The article exposing TYRRELL was entitled "The Real Simon Pure," and accused him in unmeasured terms of literary and professional incompetency, asserting that the text of Sir ASTLEY COOPER'S lectures had been bodily stolen from the *Lancet*, and that the illustrative cases were badly chosen and unimportant as a whole, and that one in particular had been seriously garbled, being recorded as a success in spite of the fact that it had a fatal termination.

Terribly relentless and almost savage as this article was as an indictment, it was a masterly piece of work, and it is impossible to read it now without feeling that the pen that wrote it was moving in obedience to a mind not stirred by petty malice, but fiercely swayed by passionate conviction.

In the trial that followed, WAKLEY was represented by Mr. BROUGHAM (afterwards Lord BROUGHAM) whose defence in this case was one of his finest forensic efforts, damages were laid at £2,000, the verdict was for the plaintiff, damages £50.

This was chiefly due to the summoning up of Lord Chief Justice BEST, which is considered unfair.

Immediately after the trial WAKLEY, with characteristic decision, or obstinacy, or audacity, published his opinion of the proceedings, and took occasion to recapitulate every word he had uttered previously and for using which he had just been fined. He virtually charged the Lord Chief Justice with taking up the cudgels in Mr. TYRRELL'S behalf against the *Lancet*, and accused him of acting unfairly.

THE TYPHOID BACILLUS IN WATER.

WE quote from the *Public Health Engineer* —"Dr. WASHBOURNE, bacteriologist of Guy's Hospital, who has just concluded his examination of the Maidstone water-supply in connection with the recent epidemic of typhoid fever, makes the following interesting remarks:—'The difficulties of discovering the typhoid bacillus in drinking water are so great that it is still a debateable question whether they have ever been surmounted. It is a debatable question whether it is possible in the present state of our knowledge to discover the presence of the typhoid bacillus in water contaminated with animal material. Most of the cases in which typhoid bacilli are stated to have been found in drinking-water, occurred at a time when tests available for distinguishing the typhoid bacillus from other bacteria were insufficient. The source of contamination of water with typhoid material is probably always the excreta of patients suffering from typhoid fever. Such water would contain large numbers of coli bacilli in addition to much smaller numbers of typhoid bacilli. The difficulty, if not impossibility, of recognising the typhoid bacillus in these circumstances is so great, that no importance can be attached to the failure of discovering the typhoid bacillus in water suspected of being the cause of an epidemic of typhoid fever."

COMMENTS AND NEWS.

SUB-SOIL AND DISEASE IN BOMBAY.

No doubt many learned explanations will be forthcoming to account for the second epidemic of plague in Bombay, and we may expect many far-reaching hypotheses, vain speculations and much talk about bacilli and other fads of modern learning.

"Learning, that cobweb of the brain
Efficte, erroneous and vain."

Whatever the result may be, to outside observers it must be fairly evident that in spite of all the precautions that have been taken, and all the efforts that have been made, there is some weak point, some plague spot we may say, which has as yet been untouched.

The difficulty of eradicating the plague from Bombay has been proved. Therefore we conclude that in Bombay city there is some condition that it finds peculiarly suitable to it, that it regards Bombay as a highly desirable, permanent residence.

We would ask if this condition, this special attraction, has anything to do with the state of the sub-soil, and this is a practical point.

We have before alluded to the water-logged state of the sub-soil and expressed the opinion that no real improvement in the health of the city can be expected until this was remedied. Our contemporary, the *Times of India* draws attention to the matter in a forcible article, (22nd January), the sentiments of which we can most cordially endorse.

The sub-soil of Bombay city we find described as "a marsh of stagnant water."

We read that in the last eleven years the level of the sub-soil water has risen eight feet, from twelve feet below the surface to four feet; over three quarters of an inch a year.

We stand aghast at such a state of affairs, and find ourselves wondering if the authorities who are responsible for it are deaf and blind, or in their last dotage, or whether they are all undertakers and have an interest in consigning their fellow citizens to the dust.

How much longer, we wonder, will these supine figure heads stand passively by, looking on at the rising tide, perhaps until the city is decimated, or until they see the water splashed up by their carriage wheels,—but out of sight out of mind.

In a Report to the Corporation in September last upon this subject, Mr. SNOW, the Municipal Commissioner, wrote: "Measures for the rapid removal of such water are most urgently needed;" and again he says further on, "I wish specially to press upon the attention of the Corporation the urgency of this matter, as it is a generally acknowledged fact that the present condition of the Tardeo Flats is a standing menace to the health of the city, not only are the natural escapes for sub-soil water blocked and its level raised in all the adjacent parts of the city, but with the continuous back flow of water polluted by contact with and soakage through disintegrating kutchra, a grave source of danger and infection to several hundred thousands of the population is constantly present."

Such is the warning, one of many, given last September, a scheme of drainage has been drawn up and approved, and stated by competent authority to be well within the resources of the Corporation, but still they pause, do they think this slow and steady rise of water in the sub-soil a thing to be played with, that this enemy will delay its stealthy approach to suit the convenience of their tardy Councils?

The Bombay Corporation cannot plead ignorance of the fact, it is notorious, they can only prove their ignorance of

[illegible] with the duties entrusted to them, they are simply playing ducks and drakes with the lives of the inhabitants of the city.

They brought in an enormous water supply, but took no steps for its removal, a conspicuous display of sanitary ignorance, the natural result is that what was supposed to have been a blessing has proved to be a curse, the water keeps soaking into and saturating the sub-soil; there is an enormous waste which they do not hasten to check by metres.

Such neglect, such incapability is criminal. How long, how long, will it be allowed to continue! This Corporation has undergone a fatty degeneration from an over-surfeit of self-admiration and subsequent slothful repose, it requires purging and the Government will have to be called in to administer its most drastic remedies; otherwise one of the finest cities in India is doomed.

It is well pointed out that the new Government scheme for a regenerated Bombay, which chiefly consists in the construction of new and wider thoroughfares and better house accommodation, is foredoomed to failure, a beautiful, well laid out city resting on a "slough of despond" all above fair, all below beastly; like to a mermaid.

This design will not restore Bombay to its pristine state, it will not restore the blessing of health to the lovely city

"It will but skin and film the ulcerous place,

While rank corruption mining all within "infects unseen."

As long as this state of affairs affected Bombay alone, outsiders could afford to regard it with equanimity, their affairs were no concern of ours, they probably knew best what was good for them, at the worst it was only another conspicuous example to be added to the long roll of incapable Bumbeldom, and as they made their bed, so must they lie on it. But now that Bombay has become a source of danger and menace to the whole of India, things are changed We don't want within our boundaries a place specially suitable to be a breeding place for, and a disseminator of plague to the whole country.

In the history of the Plague the record of Bombay is not one to be proud of, and if they cannot see to the matter themselves and cleanse the Augean stable, it is quite time that a higher authority stepped in and did it for them.

GOVERNMENT DOCTORS AND PRIVATE PRACTICE.

SIR ALEXANDER MACKENZIE, the Lieutenant-Governor of Bengal, in his public address at the laying of the foundation stone of the new European General Hospital in Calcutta, said that the Superintendent who would succeed Dr. CROMBIE, the present incumbent, should not be allowed private practice, and that he should reside in or near the hospital grounds in order that he might be present whenever needed, and to see that his orders were carried out. This is the first instalment of a death blow to the illegal and dishonest system on the part of the State, in allowing State-paid doctors to engage in private practice. Among the "*military*" staff of "general practitioners" who officer our public hospitals and do family practice in *all* their spare time, it must be admitted that there are some who realise that their *official* duties are sufficiently onerous to demand their giving up *family* practice, and to resort only to "casual calls" and "consultative work." One notable and praiseworthy instance of an official doctor with a conscience, is the Principal of the Calcutta Medical College, who, though he is likely to be "one of the most requisitioned of consulting physicians," flatly refuses to do "private work of any kind;" as the doing of it interferes with the efficient performance of his State duties. We have heard it personally from more than one Government doctor in Calcutta, that the Government could not do a wiser or better thing for the Medical College—the students, the [illegible] and even for the doctors themselves [illegible] the wild rush after private practice, than to prohibit all officials in the I. M. S. in Calcutta, Madras and Bombay, from engaging in general practice, and to enforce them to confine their leisure time to purely consultative work. The absurdity of the whole system may be seen by considering any single appointment at the Calcutta Medical College. One officer, for example, has the entire charge of one of the largest women's hospitals in the world. He spends one hour or less sometimes, though rarely more, in the wards of the hospital. On Sunday he does not visit the wards at all. He has a large practice as a family physician; he is secretary to an educational institution; he is private physician to over a dozen commercial houses in the city; he is medical adviser to some insurance offices, he is a Presidency Surgeon and ought to attend Government servants residing in Calcutta; he is a Professor of Midwifery, having the training of a few hundred medical students and a few dozen European and native midwives under his care. How in the name of conscience can any man perform efficiently such a plurality of offices? How can students learn anything, either from the lectures or the clinical teaching in the wards, from such an overburdened and care-worn official? The mere enunciation of such labors and cares ought to drive home to the mind and conscience of Government, that work under such conditions and circumstances must be done in a most slip shod and irregular fashion, and that an honest administration would abolish such a system of reckless incompetency, root and branch, at a single blow. But the Medical Administration of the Supreme and Provincial Governments is devoid of that element of boldness and fearlessness that seeks to eradicate evils of old growth, even though rank dishonesty stares out at every nook and corner of a rotten and disgraceful system of providing for the medical and educational needs of India. Of course this tottering edifice of Indian Medical Service monopoly, and the gross mismanagement of our public hospitals and of our educational institutes of medicine, cannot stand out very much longer. One by one the "plums" are disappearing, one by one abuses are being set aside, and certainly within a few brief years, public opinion will cause a shaking off of the accustomed stupor and indifference from the official conscience, and these extremely crooked paths will be made straight. For the present, however, until reforms are brought about, the Director-General of the Indian Medical Service and every Inspector-General of Civil Hospitals, has a serious charge to answer, in permitting the evils complained of to exist. It is because these officers fail to do their honest duty that these abuses do exist And yet they accept their huge salaries for "doing their duty"!

THOUGHTS ABOUT DR. ERNEST HART'S LIFE.

WE quote from *The Lancet*:—"With regard to Mr. ERNEST HART'S personal character and the aims and motives by which he was actuated, we cannot do better perhaps than quote the words spoken by a close and sympathetic friend, the Rev. CANNON BARNETT, at the memorial service held on 11th January at Marylebone Parish Church. In the course of his address CANON BARNETT said: 'Each of us is thinking of some aspect of ERNEST HART'S character which drew our admiration or affection. One remembers the ardent intellect which burnt up difficulties, another the masterly ordering of facts; for some he is the keen fighter who fought for his side with sharpest weapons; one will think of the strong critical power which dissected and tossed to ridicule worn-out traditions; another will think of the love of beauty which so enriched his home, his garden, and his talk, and made him so anxious to increase the open space of London.'

[illegible] a British tube, put his [illegible] friend's [illegible].—But there was one side of Ernest Hart's character known to all. He was a man of public spirit; from the beginning of his career he took up causes. His ambition was to leave the world cleaner, happier, and better than he found it, and in the pursuit of that ambition he never hesitated to face the prejudices of his peers. He made some enemies and some mistakes, but they were made because he conceived that his first duty was not to his class but to the public. Men of public spirit are the salvation of our country—there are many in England but there are far too few." To this anecdote of the career of Mr. Ernest Hart we desire to add a few words concerning his connection with *The Lancet*. He was introduced to the late Mr. Thomas Wakley, the founder of *The Lancet*, by a Dr. Wright, whose failing health in 1856 compelled him to resign his position as a member of the staff. Dr Wright brought Ernest Hart to the office as his possible successor, and discounted all objection that might be raised on the score of his young friend's age by saying boldly: 'He's the cleverest youngster in London,' and bidding Hart show his testimonials. Among these testimonials was one from the headmaster of the City of London School stating that Ernest Hart was the most capable lad whom he had ever educated and was captain of the school at an age two years junior to that of any previous captain. Ernest Hart had also a great record as a prize-winner at his medical school and was at once given a place upon our staff. His duties as defined by the agreement which lies before us were threefold: (1) to write leading articles to order, (2) to write in the editorial style on topics selected by himself, but subject to the Editor's approval; and (3) to take charge of the columns devoted to the reporting and discussion of medico-Parliamentary affairs. In every department he acquitted himself to the satisfaction of the Editor. Mr. Ernest Hart was a good friend, bitter foe and a brilliant journalist. He was not 'co-editor' of *The Lancet* for the excellent reason that Dr James Wakley was quite competent to look after the journal by himself, but he was an admirable coadjutor. The world has lost in him a man of energy, enterprise, and public spirit, and we desire to record our unmistakeable sense of the loss."

THE IMPERIAL ANGLO-INDIAN ASSOCIATION

It will be welcome news to every Britisher and every European and to the descendants of both these classes throughout the Indian Empire, to learn that the term "Eurasian," as applied to the descendants of Europeans in India, is to be dropped and for ever expunged from the legal, political, and social phraseology of racial description. The term was distinctly a misnomer and was used and understood to imply reproach. It will now die and over its entombed remains will rise the standard of the "Imperial Anglo-Indian Association," a National Union, which will embrace in its fold every nationality of Europeans and their descendants in India. The following document is worthy of serious attention by the whole domiciled Anglo-Indian Community:—

"Proposed Memorandum of Association of the Imperial Anglo-Indian Association.

"1. The name of the Society is 'The Imperial Anglo-Indian Association.'

"2. This Association shall incorporate all members of the domiciled British and European community and their descendants in India into one National Union.

[illegible] Empire, wherever their [illegible] shall have a National Council formed by representatives from Head-Quarters and all the branches. The Head-Quarters and Branches shall each have their own governing bodies. This Association shall have a representative body in London.

"4. The aim of this Association, as being distinctly and inalienably British, shall be to advance the interests and uphold the prestige of British power in India, by the utmost loyalty and devotion to the British throne.

"5. The objects of the Association are—

a.—To secure representation for its Community in the Councils of the Indian Empire on terms of equality with other communities.

b.—To secure for its Community an equality of rights and privileges with imported British labor, whether in the Civil or Military Services of the State in India.

c.—To secure an equality of rights and privileges for the various sections of its Community in all the philanthropic measures of Government designed to assist the people of the country, more especially in matters of general and technical education, industrial pursuits and the paid service of arms.

d.—To promote the material, intellectual, social and moral advancement of its Community and to protect the rights and status of British and European residents of India and their descendants, and to further their common interests by every possible constitutional means.

e.—To adopt or promote such philanthropic, economic, industrial, educational, or other measures, as may be best calculated to ameliorate the condition of the various classes of their Community.

f.—To establish a news paper which shall represent the cause of the Community.

g.—To acquire funds lands, buildings and other movable or immovable property, and to hold the same for and in the interests of the Association."

THE TONGUE AS A CLINICAL GUIDE IN DISEASE.

The tongue is a most important indicator of disease, and the following remarks of Dr W. F. Ball *Medical Brief* may be of interest:—

A broad, pallid tongue, with a loaded base, says atony, and refers you to a want of action of the entire viscera below.

The remedial agents would be cathartics and tonics, especially those mild but effectual in character.

A shrunken tongue, pinched in expression, indicates functional inactivity of digestion, and requires great care in choice of food as well as quantity. In this condition of tongue, we have atony also.

It is the tongue of advanced fevers, inflammations of the mucous membranes, and want of assimilation, hence great caution both of remedies and food. Here we must not use cathartics. Mild aperients may be carefully used.

A contracted pointed tongue, with dryness and dark fur, is the usual tongue of typhoid fever and other low grades of fever, when all thinking minds would use great care in the treatment and food.

The dryness or moisture of the tongue denotes the extent of the disease of the intestines, and will point us in that direction.

A dumpal tongue points to the kidneys, either an inflammation or something wrong with secretion.

Yellow coatings are usually associated with morbid liver and want of biliary secretions, and would indicate mild hepatics and tonics.

Raised papillæ, bright red, denote irritation of ganglionic nerves and irritation of stomach, especially the mucous coating. Shows exhaustion; no digestion, and needs rest; nux vomica twenty drops, and the food to be warm, and taken in small quantities. Bismuth and pepsin after food.

Broad thick tongue, papillæ not visible, but looking raw, denotes a septic condition of blood, and favors typhoid fever. Indicates, if deep red, sulphuric acid; if pale, sulphite soda. Liquid food, sipped warm, in small quantities.

Deep, dark red tongue and dark coating, indicates septic condition of blood.

Shades of dark brown and black denote typhoid condition, or septic conditions.

Pale, dirty fur on tongue denotes acidity, and a septic condition of system; indicates sulphite of soda; but if membranes are deep red, sulphuric acid will be admissible, because it would show an alkaline condition of blood.

Contracted, pointed, cannot hold still, and drawn to one side of mouth, denotes a wrong with the nerves, and perhaps the brain. Requires great care and study of condition.

Dry tongue always denotes feverishness or inflammatory condition, a wrong with the nerve centers of ganglia.

Thick tongue, and curved edges upward, denotes atony of the nerve centers of ganglia, requiring stimulants, nux vomica or strychnia, and quinine.

Pointed narrow tongue is the tongue of sluggish condition of digestion and assimilation, and congestion, especially of the base of brain. Restlessness and constant change of position is usually present.

Milk diet, warm, and in small quantities. Pepsin after. Calomel one-tenth grain, and one grain of soda every three hours, and quinine two grains every three hours.

THE LIFE OF SIR JAMES RANALD MARTIN C.B., F.R.S. BY SIR JOSEPH FAYRER, BART.

SURGEON-GENERAL SIR JOSEPH FAYRER, Bart, has conferred one more obligation upon us by his recently published life of Inspector-General Sir JAMES RANALD MARTIN, C.B., F.R.S.

The name of RANALD MARTIN is well known to all students of Indian or of Tropical medicine, and a perusal of his life cannot fail to be interesting. He has taken a chief place as a pioneer of preventive medicine in India, and also asserted a right to a prominent position among the promotors of sanitary reform in England. He devoted a long life with conspicuous ability, diligence and tenacity of purpose to the saving of human life by means of the ameliorating of those conditions which give rise to fatal illness.

For ten years Calcutta was his place of residence. During these ten years he was constantly engaged in schemes and projects, having for their object the improvement of the health of troops, prisoners, and the population at large.

He devised new forms of statistical record, designed to display more clearly the influences affecting health and longevity. He initiated an important scheme of medico-typographical surveys and reports intended to shed light on the causation of disease. He promoted and aided in conducting a searching inquiry regarding the health and sanitation of Calcutta, and started that sanitary movement of which the capital city stood in such urgent need, and which is still in progress, and still far from being as real and effective as it ought to be.

He was one of the main founders of the Calcutta Hospital and Medical School.

He recommended the location of British soldiers in the hills during the hot weather. He strove to raise and benefit his own service, and he succeeded in obtaining for them improved pensions and a share of the honours and rewards distributed for good service. He continued to urge the claims of the medical services to equal rank and reward with their combatant brother officers as long as he lived.

In this he was at one with the ablest and greatest of Indian Administrators, the Marquis of Dalhousie, who in a long minute contended that "the medical officer in respect of real rank, dress, honors, and promotion should be placed on a footing with his brother officers."

After a busy and active life, full of honors and dignities, he died in England at the age of 79.

GOVERNMENT METHODS IN DEALING WITH FAMINE AND PLAGUE.

UNDER the heading "Famine and Plague in India," the *British Medical Journal* makes the following very just remarks, the truth and aptness of which will be almost universally recognised in this country:—

"The famine threatened twelve months ago to be the greatest calamity, but it has been tided over with a marvellous success. There can be no question as to the brilliancy and effectiveness of the measures taken to combat the danger and to distribute food to the famished millions. Guided by officers experienced in this special work, the Government of India has been able to carry out schemes of relief which have never been equalled in magnitude by any other Government in the world, or by any previous effort on the part of the Indian Government The number saved from starvation is enormous.

"This success has been mainly secured by acting on the principle that officers trained in the methods of dealing with famine were the best to organise and conduct famine operations. It is a principle which is also and rightly followed in the case of war. In the war against the rebellious tribes on the North-West Frontier the best officers in the Indian army were sent to conduct the campaign. The principle is here recognised that those who are trained to the work know best how to direct and conduct it. This is common sense.

"It is, therefore, a matter of surprise that a similar policy was not accepted and adopted in the fight against plague. The prevention and checking of the spread of plague are essentially medical questions, and it was to have been expected that the medical profession would have in this instance been given positions of prominence and trust. But this has not been so. Trained medical men, as the controlling agency, have been conspicuous by their absence. Their part has been a secondary one, while military and civil officers have played the prominent part in direction and control, and have been appointed to positions for which they are not specially fitted either by knowledge or training. This is not in accordance with common sense.

"It is a curious spectacle, this reversal of the ordinary conditions of life—the untrained trying to command and lead the trained. If a similar policy had been adopted against plague as was wisely observed in the famine and the frontier war, there can be little doubt that a similar success would have attended the efforts of Government, and there would have been no occasion to deplore the enormous loss of life which is now taking place in the Bombay Presidency."

[illegible] plague [illegible] to show [illegible] and at the end of the first week in [illegible] deaths were being returned daily in the city.

During the week ending 16th January 1898, there were 651 deaths from plague, while in the week ending 23rd January there were 781, an increase of 130 for the week; and in the week ending 1st February

On the 9th February the mortality returns beat the record. There were 1,325 new cases and 903 deaths. During the week ending 10th February there were 1,124 deaths from plague. The return for the 14th February gave 173 new cases and 190 deaths.

The following table from the *Times of India* shows the weekly progress of the plague in the present epidemic, as compared with the epidemic of 1896—1897, contrary from the beginning of the epidemic on each case :—

Week ending 6th	October	No record.
„ 13th	„	No record.
„ 20th	„	81
„ 27th	„	119
„ 3rd	November	159
„ 10th	„	190
„ 17th	„	187

Its weekly progress in the first seven weeks of the present epidemic has been as follows :—

Week ending 7th	December, 1897	88
„ 14th	„	90
„ 21st	„	1 8
„ 28th	„	200
„ 4th	January, 1898	302
„ 11th	„	450
„ 18th	„	651

The rate of progress of the epidemic is thus greater than last year.

For the week ending 25th January there were : in Poona, 98 cases and 77 deaths ; in Surat, 177 cases and 153 deaths ; in Nasik, 93 cases and 77 deaths ; in Satara, 249 cases and 208 deaths ; in Sholapore, 89 cases and 75 deaths ; in Belgaum, 96 cases and 93 deaths ; in Baroda, 146 cases and 109 deaths ; and in Cutch, 68 cases and 62 deaths.

Plague has also found its way into Hyderabad, in the Deccan, 9 cases having been reported from Kesbogaon in the Naldrug district, while in the Punjab three more villages have been attacked.

THE SPREAD OF PLAGUE FROM BOMBAY. MEASURES FOR OUTWARD QUARANTINE.

Now that Bombay is fast in the grasp of a second epidemic of plague, it is most important that every possible precaution should be taken to prevent it becoming a centre of infection for the rest of India.

It is not pleasant to read about the "Exodus from Bombay," and to look forward to the subsequent lighting up of foci of infection throughout the country.

It is more cheering to hear that special attention is now being directed to the question of "Outward Quarantine." The following are the rules that have been laid down, and though they appear to be open to criticism, tend to leave loopholes for abuse, we can only hope that properly administered they will be found to be effective :—

"With the following exceptions no person will leave this city by land or by the Pleasure Steamers unless the application have obtained for a Detention Camp appointed by the Committee, and a pass granted to him immediately preceding the date of departure :—

"Exception (1).—Those persons who are in possession of the only railway to be considered.

"Exception (2).—Those persons who certify before the District Medical Officer certificate that they have been under his observation for a period of not exceeding ten days immediately preceding the date of the application ; (2) that, to the best of his belief, there has been no plague in the dwelling occupied by the applicant or in the immediate vicinity for a period of not less than one month immediately preceding the date of application.

"Exception (3).—Persons leaving Bombay on business and returning within a week, if living in uninfected localities and on producing certificates of good health from the Medical Officers in charge of the Committee's Camp at Wadi Bunder or Madhkana will, with the approval of the Committee, be granted passes for return to Bombay within seven days.

"Note.—All persons travelling from Bombay without passes are certain to be detained.

"Bombay January 21."

THE COST TO THE INDIAN TAX-PAYER FOR THE SOUL-DOCTORING OF EPISCOPAL EUROPEANS.

THE *Morning Post* asks :—"Is the Government justified in taking from Indian revenues the following amounts per mensem :—

Bishop of Calcutta, Metropolitan	...	Rs. 3,333
Bishop of Madras ...	...	„ 2,181
Bishop of Bombay ...	...	„ 2,181
Bishop of Colombo	...	„ 1,000
Bishop of Rangoon	...	„ 1,000
Bishop of Lahore ...	...	„ 1,000
Bishop of Travancore and Cochin	...	„ 1,000
Bishop of Chota Nagpore	...	„ 1,000
Bishop of Lucknow	...	„ 1,000
Ten Archdeacons, @ Rs. 800 each	...	„ 8,000
Thirty Chaplains, @ Rs. 800 each	...	„ 24,000
Table of salaries paid to 115 chaplains holding other Crown appointments, say 10 Senior Chaplains, @ Rs. 800 each	...	„ 40,000
40 Junior Chaplains, @ Rs. 500 each	...	„ 20,000
25 Chaplains on probation, @ Rs. 400 each.		„ 10,000
Total monthly	...	Rs. 1,16,093

In addition to these figures there are the burdens connected with privilege leave, one month for every five months' continuous work, and leave on 'urgent private affairs' (either of which forms, entitles the applicant to full pay.)"

Fourteen lakhs of rupees a year paid by the Hindu, the Mahomedan, the Buddhist, and the European non-adherents of the Ritualistic Church for the support of a State bolstered religion ! This is an iniquity quite on a par with the amount pic-nicing in the Hills by highly-placed officials who have their princely salaries assessed at high figures for working in the heat of the plains, but who double their salaries with "allowances" for dancing, theatre-going and every other daily frivolity, in the delightful health resorts of the Himalayas. This pantomimic form of Government will go on as long as the counsels of this iniquitously ruled Empire are "packed" by carpet-baggers of officials. The sooner the people of the country, both British and Natives, join hands, and change this system of despotism and wrong-doing, so much aware will real prosperity smile on this land. May Great Britain put an end to the mis-government of India at an early date.

FAMINE AND PLAGUE IN INDIA.

BRIGADE-SURGEON-LIEUTENANT-COLONEL C. W. MACRAE, I.M.S., writes to the *British Medical Journal* as follows:—"With reference to the leading article on famine and plague in India in the *British Medical Journal* of 9th January, your readers will kindly be surprised to learn that a civilian with the rank and title of "Plague Commissioner" has been appointed by the Bombay Government. This officer has recently been acting as Commissioner in Sind, and having to vacate this appointment on the return of the permanent incumbent, this post was specially created for him, in which he draws a handsome salary and allowance for controlling and directing the specially selected medical officers lately sent out from home by the India Office, and he will no doubt in due course be credited with, and decorated for, the results of their arduous labors.

"This proceeding is as incongruous as the policy hitherto observed of entrusting all power in regard to plague operations in the districts to assistant collectors. I have known a collector to be so jealous of his authority as to insist on inspecting vaccinators' registers and office records for fear he should not be considered paramount in his district. It seems that the severe lessons it is now experiencing does not convince the Government of the preposterous absurdity of placing trained experts under the orders of amateurs, however high in the grade of Civil Servants. It clearly proves—if proof were needed—the official estimate of sanitation, and indicates how essentially necessary it is for the welfare of India that the sanitary department should be more than a mere name, which has hitherto been its fate. A long and bitter experience has convinced me that no real progress or reform in sanitation can be effected untill the Government of India takes the matter directly into its own hands

UNFOUNDED STATEMENTS ABOUT PLAGUE INOCULATIONS.

IT is a pity for Dr. KHAJA ABDULLA, of the Mahomedbhoy Ebrahim Khoja Hospital, and also for those whom he may have most unwarrantably mislead, that he did not exercise great care to ascertain the accuracy of his facts before rushing into print to cast discredit upon the effects of Dr. HAFFKINE'S plague inoculations.

His statement was that six inoculated persons were under treatment for plague in his hospital, and that five of them died.

Dr. HAFFKINE in a letter addressed to the *Times of India*, gives the fullest particulars concerning all these six cases, and is able to refute Dr. ABDULLA'S statement in the most satisfactory manner; the letter concludes as follows:—"Thus of the six cases three fatal ones were *not* inoculated; of the others one fatal was inoculated once 8½ months before; another was attacked on the day of inoculation, before the inoculation could have exercised any effect; and the third, attacked 10 days after inoculation, made a very speedy recovery.

"Although, therefore, Dr. ABDULLA'S information admitted of some correction, I hope neither he, nor anyone else, will be discouraged by that from keeping us early informed of any cases of plague they may come across among the inoculated. There will be no harm in the information being approximate, or incomplete, or even inaccurate, as we are in possession of all the necessary data for control and verification."

HOME SEGREGATION FOR PLAGUE.

THE question of home segregation has again been brought prominently forward in a contemporary medical journal. This system was strongly urged on the attention of Government by the Indian Medical Association, as recorded in the *Indian Medical Record*, 1st April 1897, and it is difficult to see what valid objections can be urged against it.

Setting altogether aside the religious and caste prejudices of the Native community, though they are by no means a negligable quantity, it is certainly the course that would be followed in European countries. In India its acceptance is all the more imperative, considering the utterly inadequate nature of the hospital accommodation. It is the first duty of the authorities, casting forth people from their homes, to provide suitable accommodation for them.

Besides what can be more logically satisfactory from a sanitary point of view than that the affected person should be segregated in the very place where the disease was contracted, and the whole of that place, *i.e.*, the infected house, quarantined, in this way all the risks inseparable from the conveyance of infected persons through the streets is avoided. The house is marked, it is quarantined, and subsequently thoroughly disinfected.

DR. ERNEST HART ON SANITARY REFORM IN INDIA.

BEFORE Mr. HART started for India to attend the Medical Congress at Calcutta, he had prepared a laborious and lengthy speech on the sanitary needs of India, which had been put into type before he left England. Finding it was much too long to give as a spoken address, he, on arrival at Calcutta, engaged the services of a shorthand writer, dictated to him a summary of this address, which was accordingly furnished to the press as his intended speech. When, however, Mr. HART stood up to address his audience all notes were discarded, and brimful of his mission he delivered one of the most brilliant philippics ever heard on such a subject, sparkling with satire, trenchant with indisputable facts, and dealing straight blows at those in authority for supineness and neglect. He held his audience spell-bound, short bursts of laughter which greeted his sallies of satirical humour breaking only the silence with which he was listened to and his close arguments followed. Deriding the printed recommendations for the prevention and staying of cholera among troops, he held up in his hand the Blue Book in which the medical officers were recommended to march the troops out of the barracks at right angles to the wind, and exclaimed, "You might as well tell them to waltz."

This speech and Dr. HART'S subsequent open letter to the Viceroy had a profound influence in inaugurating sanitary reform, although the hard hits of attack aroused a good deal of sore feeling and useless recrimination at the time.

RELAPSING FEVER IN BOMBAY. DEFECTIVE RETURNS.

THE *Times of India* says:—"It is notorious that relapsing fever has been prevailing for some weeks past in an epidemic form, causing a mortality of from 8 to 12 per cent. of the persons attacked, and yet this fatal epidemic is unnoticed in the returns. The existence of the disease appears to be ignored by the death registrars: certainly it finds no place amongst the causes of deaths. As a matter of fact, one contagious diseases hospital in Bombay has upwards of one hundred beds occupied by cases of relapsing fever which have been carefully diagnosed. The Plague Committee take cognisance of such cases and remove them to hospital as soon as detected, but official record takes no notice of them, for if any of these cases, which are carefully examined in the hospital, prove fatal, the presumption is that the Medical Officer, who fills in the Return, records the cause of death as relapsing fever. If this presumption is correct, it

follows that all such deaths are returned under a wrong and a misleading head. It is highly undesirable that such a very contagious and widespreading disease, as relapsing fever is known to be, should be disregarded in registration. It may besides become a serious sanitary question whether a large plague hospital is the most desirable place for the treatment of relapsing fever."

NEW YEAR RESOLUTIONS.

THE *Public Health Engineer*, an excellently conducted journal from which we derive much useful information, publishes the following amongst other pithy comments under the above heading :—

"We are informed upon untrustworthy authority that the undermentioned bodies have passed the following good resolutions for the New Year :—

"The Corporations of Provincial Towns : 'To follow out the recommendations of their technical advisers, their medical officers of health, engineers, and surveyors, and to abstain from blaming them for the consequences brought upon the towns by not carrying out said recommendations.'

"The Water Analysts : 'To try to catch a typhoid bacillus, and to learn something about his habits, customs, and methods of infecting the human family.'

"The Medical Officers of Health : 'To endeavour to look upon sanitary engineers with toleration.'

"The Sanitary Engineers : 'To try to bring themselves into a frame of mind which will admit of their acknowledging that all medical officers of health are not hopelessly ignorant.'

"The Government of India : 'To realize that prevention is better than cure, and to introduce some sanitary measures in India.'"

DIRTY BARBERS' SHOPS.

DR SUITER, in "Society Reports" makes the following remarks on the dangers of the barber's shop :—

"There is scarcely a step in the processes usually employed by the barber to-day which does not carry an element of danger when the most careful precautions are not observed. It is remarkable that the first steps toward antiseptic methods in this trade were introduced only last month at Paris There metal combs and brushes are required, and they, with the razor, clippers and scissors, are subjected to heat of 100 degrees centigrade before and after use. Shaving brushes are washed in boiling water. The towels are sterilized, the barber must wash his hands in an antiseptic solution and the hair which is clipped must be removed and destroyed at once.

"The reason why I grew a beard, was that a patient I was treating for an organic disease which had broken out in eruptions on his face had just gotten up from a chair in a barber shop which I frequented. The alum sticks to staunch the flow of blood and the block of magnesia for drying the newly-shaved face are used for customer after customer, and should be, like the articles of the trade, made subject to restriction."

A PRESCRIBERS' CLAIM TO HIS PRESCRIPTION.

SAYS the *Chemist & Druggist* :—"The *Lancet* puts forward an untenable claim on behalf of prescription authors. It quotes from the ladies' column of some (unnamed) weekly paper wherein is mentioned a "face massage-cream," which is alleged to prevent or cure wrinkles. The writer says a lady-friend of hers got the prescription from a celebrated doctor in Harley Street eight years ago; that it cured her wrinkles; that she has given the prescription to dozens of her friends, with satisfactory results; that letters about it will be answered; and that she thinks seriously of putting it on the market. 'But,' says the *Lancet*, 'it is not hers to put.' And comments are made on the blatant dishonesty of the two ladies concerned. The statement that it is 'not hers to put' appears to be simply senseless. Unless the doctor patents his formula or makes an express contract with his patients, he has neither a legal nor a moral right to object to a preparation which he prescribed being used by any number of people. And where the 'blatant dishonesty' comes in passes our understanding. A schoolmaster or lecturer might just as reasonably claim that none of his pupils should use for their own benefit any of the education they obtained at his classes."

THE SURGICAL WORK OF OUR ARMY SURGEONS ON THE INDIAN FRONTIER.

NEVER was the taunt of the professional incompetency of the British Army Medical Officers more thoroughly and effectually vindicated than in the present war in the North-West Frontier of India. The surgical emergencies of the struggle were immense, and the demands on the operative skill of the Army Medical Staff was equally so. Capital operations of the severest type have been performed by the hundred *on the battle-field* and in the moveable camps, and so perfect has been the equipment and so harmoniously have the medical units fitted into every emergency, that there has not been a single hitch during the whole campaign. The sick and wounded have been attended to admirably, and the results of the surgical work on the field have been brilliantly successful. Every case of amputation of limbs has proved a success. Not a single septic difficulty has been found in the whole history of the campaign These facts speak volumes to the credit of our A. M. S. Officers and to their hard-working local staff, the Military Assistant Surgeons. We understand that the great French military medical expert who was deputed to observe and to criticise the working of the British system of military medical equipment in India, and who has seen the whole scheme in active order on the frontier, has pronounced the most favorable opinions on our army medical organisation It is he says, infinitely superior to anything else in the world. This opinion has been fully endorsed by a Japanese expert also Unquestionably the Army Medical Staff has fully vindicated its professional honor in such a manner as to silence the hostile and envious criticisms of the authorities at the War Office, who so grudgingly concede the pressing reforms of which this excellent service stands so much in need.

CONSULTING ROOMS AT CHEMISTS' SHOPS.

THE *Chemist and Druggist* says —"The *Medical Times* having been asked on several occasions to give its opinion as to the advisability of a medical man renting a portion of a chemist's house as consulting rooms, thus expresses itself :—

There can be no doubt that a medical man has the right to rent consulting rooms in the house of a chemist, but anyone wishing to succeed professionally would be well advised to keep as far away from chemists as possible. To be so closely associated would give the public some ground for thinking that a very good understanding existed between them, and the doctor would probably be regarded with suspicion. Medical men, in their business-relations with chemists, should always remember that they have to maintain the honor and dignity of a profession that has been reckoned a 'noble' one.

"Such talk is not, to say the least, calculated to foster that good feeling between medical men and chemists which, in our opinion, should continue to exist."

THE CALCUTTA MEDICAL SCHOOL.

THE HON'BLE MR. JUSTICE TREVELYAN, Vice-Chancellor of the Calcutta University, visited the School on the 2nd of February. He inspected all the departments in connection with the school and the hospital closely.

Besides 400 students, there were present, among others:—Dr. RAI LAL MADHAB MUKERJEE, Bahadur, Drs. R. G. KAR, S. N. MITTRA, S. M. DAS, N. N. BASU, PRANDHONE BOSE, SARAT CH. BASU, CHUNI LAL BASU, RAKHAL DAS GHOSE, BENI MADHAB BASU, SARODA PROSAD CHAKRABARTY, and GODADHAR CHAKRABARTY.

The students of the school lined both sides of the road which led to the entrance, forming the guard of honor.

In the visitors' book, his Lordship expressed his opinion in the following way:—

"I inspected the Calcutta Medical School on the 2nd of this month, and was exceedingly pleased with all that I saw. Great credit is due to those who have established and maintained this school. Its work is invaluable. Besides that it affords medical aid to many sick poor in Calcutta, it distributes a large number of qualified medical practitioners in the districts. It is interesting to see how it is possible for the gentlemen of this country to carry on a medical school on European principles but without any European aid. I wish every success to this Institution, and am much obliged to RAI LAL MADHAB MUKERJEE, Bahadur, for the opportunity of seeing it which has been afforded to me."

(Sd.) E. J. TREVELYAN, *4th Feb. 1898.*

THE SCANDAL OF EUROPEAN HOSPITALS IN INDIA.

SAYS the *Phœnix*, a leading Indian paper:—"The foundation-stone of the new European hospital was recently laid by the Lieutenant Governor of Bengal in Calcutta, and His Honour distinguished himself by a very happy speech on the occasion. The Government of India have promised ten lakhs of rupees for the scheme and the Bengal Government will pay twelve. Thus twenty-two lakhs of rupees wrung from the Indian tax-payer is to go to provide Europeans with the luxury of a separate hospital where the ubiquitous "native" may not trouble their vision. This might be a very good arrangement, but it does not embody the quintessence of justice. It *looks like* robbing Peter to pay Paul though we can not say *it is*, for that may mean for us a prolonged sojourn in the Andaman Isles.

ONE RESULT OF THE LAPORTE CASE.

SAYS the *New York Medical Record*:—"We learn from the *Presse Médicale* that an Amiens fellow, relying doubtless on the Laporte case as a precedent, lately wrote a letter to a physician accusing him of having caused the death of his wife and child, ten years before, by performing craniotomy, demanding to have his loss made good by the payment of ten thousand francs within forty-eight hours, and threatening legal proceedings in case his demand was not complied with. We are glad to learn that the fellow was sentenced to fifteen days' imprisonment."

A MEDICAL STAFF CORPS FOR INDIA.

THE *Lancet* says:—"It is, we believe, the first time that men of the Medical Staff Corps have proceeded for service to India. Surgeon-Major-General O'DWYER inspected a draft of the Medical Staff Corps on Monday last previously to the draft leaving for India, and expressed his satisfaction with their appearance and outfit. He also spoke of the responsibility of the position in which the men were to be placed, and urged them to uphold on all occasions the honor and credit of the corps.

[illegible]

At the meeting of the Council of the British Medical Association of January [illegible], Dr. DAWSON WILLIAMS, the Sub-Editor, who has been connected with the editorial department of the journal for many years and has on many occasions discharged the duties of acting Editor, was unanimously appointed Editor of the *British Medical Journal*. At the same time Mr. C. LOUIS TAYLOR, who has been Sub-Editor for the last eleven years, was appointed Assistant Editor.

Mr. Banks-Gwyther, who shortly goes home on leave, will be deputed to visit the Birmingham Hospital with a view to advising the Bengal Government upon the system in use there for filtering and warming the air supplied to the wards. The proposal is to furnish the new Calcutta General Hospital, with a very similar apparatus, differing, however, from that in use in Birmingham, in that it will cool the air, instead of warming it.

Amongst the Russian doctors who came to Bombay last year to investigate the plague was Dr. Redroff, who will be well remembered both in Bombay and in Poona. A telegram from St. Petersburg to the *Times* states that in consequence of some unpleasantness amongst the members of the Russian Commission before they returned, Dr. Redroff stabbed himself the other day through the heart with an Indian dagger which he had brought home with him.

The *British Medical Journal* says:—"It is wholly against the ethics and spirit of the profession to limit the spread of serial scientific literature that has been donated by physicians. In a recent review of an epitome of medical progress, one of our contemporaries argued against the need of such books. We emphatically dissent from such an opinion, believing it an instance of a bad business policy, of worse journalism, and of the worst professional spirit."

The following Resolution was proposed and passed unanimously by the Council of the British Medical Association:—"The Council desires to convey to Mrs. Ernest Hart its expression of deep sympathy with her in the loss she has sustained, and to place on record its recognition of the memorable services rendered by Mr. Ernest Hart to this Association during his tenure of the office of Editor of the *British Medical Journal* for more than thirty years."

Amongst the names mentioned in the despatches from Major-General Sir B. Blood, K.C.B., and Major-General E. R. Elles, C.B., regarding the operations of the Malakand and Mohmand Field Forces are those of Surgeon-Captain Hugo, Surgeon-Colonel J. C. G. Carmichael, Surgeon-Colonel E. Townsend, Surgeon-Captain [illegible], and Surgeon-Colonel J. F. Williamson.

The Madras Municipal Commissioners, at a recent general meeting, adopted the following resolution:—"The Commissioners desire to place on record their appreciation of the services rendered by Dr. J. Niel Cook as Health Officer of the Municipality during his tenure of office, and the conscientious way in which he discharged his duties."

Criticism has been freely indulged in by the daily press upon a physician of New York city who declined to respond to a night call from a grocer who had refused to pay his doctor's bill. Perhaps some time the public will learn that a good way to make sure of timely medical attention when needed is by paying for what it receives as it goes along.

In view of the insanitary condition of Bagdad, it has been decided to completely evacuate this place as a military station during the current year, pending the installation of a pipe water-supply. This will enable the measures requisite for remedying the various sanitary defects of the cantonment to be efficiently carried out.

Mr. William Main, who has been for years on Messrs. Smith, Stanistreet & Co.'s staff in Calcutta, and has during that time made a name for himself in connection with Indian materia medica, is returning to England for a short period, and towards the end of the year will come back to Calcutta to start a business on his own account.

Professor Tarnier, of Paris, died recently in that city, at the age of seventy years. He was graduated in medicine in 1857, from the University of Paris, and held the chair of clinical obstetrics in that university at the time of his death. He was well known for his many works on obstetrics.

We understand that Surgeon-Major-General James Cleghorn, M.D., C.S.I., the Director-General, Indian Medical Service, goes on furlough almost immediately and Surgeon-Major-General Robert Harvey, M.D., D. S. O, I. M S., will officiate in his high office.

The Prussian police authorities have issued an ordinance declaring that the so-called electro-homœopathic remedies of Count Mattei as prepared by Apotheker Santer in Geneva, have nothing in common with the homœopathy of Hahnemann, and are quite worthless.

Truth puts these words in the mouth of a physician regarding his prescriptions: "What I have written I have written, and neither I nor you nor anybody else can read it." And the *British Medical Journal* adds: "There is a good deal of *Truth* in it, and we are very sorry to say a little truth, too."

The plague party's brake, containing Sir James Campbell, Drs. BAINBRIDGE, JENNINGS, and DIMMOCK, and Messrs. James, Gell and Alexander, capsized at the corner of Batunga. Dr. JENNINGS, was picked up unconscious, two of his ribs being fractured. He is doing well.

The Secretary of State has approved of the temporary postponement of the abolition of the post of Secretary to the Surgeon-General, I. M. S. Surgeon-Captain Grayfoot continues in the appointment till the work connected with the plague ceases.

The Surgeon-General with the Madras Government has issued instructions to the Medical Officers at the General Hospital, the Ophthalmic Hospital, and the Maternity Hospital to test the value of aluminium vessels for use in hospitals, in place of copper and brass, as at present.

Surgeon-Captain F. P. Maynard, on deputation on plague duty, is appointed temporarily to act as Second Resident Surgeon, Presidency General Hospital, Calcutta, during the absence, on deputation, of Surgeon-Captain F. O'Kinealy, or until further orders.

For scientific merit a gold crown with a silver medal has been awarded to Dr. Benode Behary Banerjee, M.D., LL.D., the grandson-in-law of H. H. Maharaja Bahadur Sir J. M. Tagore, K.C.S.I., by the Scientific Society, London.

The use of cotton gloves in operations, originally introduced by Professor Mikulicz, is gradually spreading throughout Germany. They are said to be quite a step forward in the final acquisition of perfect asepsis.

A Medical Botanist's Manager at Kettering bandaged an old lady's wrist, and treated her for a sprain. It afterwards appeared that there was a fracture, and a jury has given a verdict against the botanical expert, carrying 40*l.* damages

Brigade-Surgeon-Lieutenant-Colonel Alexander Crombie M.D., Surgeon Superintendent, Presidency General Hospital, Calcutta, retires from the service, with effect from 1st March.

An continued whitish exudate indicates albuminuria. Dr. J. C. Young, of the National Benefit Life Assurance Company, says that football and bicycling greatly impair a person as a risk. Premiums will probably be enhanced.

At Green River Wyoming, a series of wells have been discovered, yielding 60,000 gallons daily of concentrated soda solution from which 100,000 pounds of pure sal soda are daily crystallised.

Dr. Anthony Brownless, Chancellor of Melbourne University, died a short time ago. He was first a practising physician in London, but went to Victoria in 1852, and was the founder of the medical department of Melbourne University.

Small-pox is becoming prevalent at Poona, and a number of cases are under treatment at the Sassoon Hospital, among them being Sister Esther, the Lady Superintendent in charge of the Nursing Staff, and Miss Barnes, one of the nurses.

Three civil pupil nurses have recently been admitted into the Eden Hospital, Calcutta, in consequence of the inability of the military authorities to find candidates for the three vacancies, which occurred among military pupil nurses.

The marriage of Miss Grose, eldest daughter of the Hon'ble Mr. J. Grose, of the Madras Governor's Council to Surgeon-Captain G. Giffard, I.M.S., took place at St. George Cathedral, Madras, last week.

We are glad to learn that Mr. P. S. Blaker, of the Medical College, Calcutta, has just passed the second examination of the Royal College of Surgeons and Physicians (London) in Anatomy and Physiology.

Brigade-Surgeon-Lieutenant-Colonel F. C. Barker, M.D., F.R.C.S.I., has been appointed to act temporarily as Superintendent, Lunatic Asylum, Colaba, in addition to his own duti.

Dr. George Watt, M.B., C.I.E., Reporter on Economic Products to the Government of India, proceeds on furlough for eight months from May next.

A novel, entitled *The Stars in their Courses*, by Editha Ewens, who is said to be the wife of a member of the Indian Medical Service, has just been published.

Under instruction from Command Head-Quarters, Surgeon-Captain E. S. Peck, I. M. S., on reporting arrival at Calcutta from Bombay, will proceed to Dibrugarh, Assam, for duty.

A Hospital Assistant who accidentally cut himself whilst conducting a *post-mortem* examination on a plague corpse at Hardwar, has contracted the disease.

A correspondent writes:—"In *re* Dr. Neild-Cooke, it may be of use to know that he got the diploma of D.P.H., Cambridge, in 1896."

Steps are being taken to expedite the despatch to India of such surgeons on probation at Netley as may have successfully completed their course of instruction.

The services of Surgeon-Major Baker, Residency Surgeon, Turkish Arabia, have been replaced at the disposal of the Bombay Government.

Ophthalmologists now recognise the bicycle eye, a specific disease brought on by the dust and dirt introduced into that organ by riding on the road.

Surgeon-Lieutenant-Colonel Combes returns from the Central Provinces and resumes charge of the Inspector-Generalship of Jails in Bengal on the 7th instant.

Surgeon-Lieutenant-Colonel G. Price, M.D., I.M.S, has been permitted to retire from the service.

In Bulgaria the proprietor becomes liable to fine and imprisonment if a medicine fails to fulfil its advertised claims.

Surgeon-Captain Williams, A. M. S., was married at Agra to Miss Halliday, and the wedding was largely attended.

[illegible] OF CALOMEL.

[illegible] Principal Diseases during the week ending 15th January, 1898, [illegible]

Week ending	Cholera	Small-pox	Fevers	Bowel com-plaints	All other diseases	Total	[illegible]	[illegible]
15th January	2	...	122	86	248	459	4,61,[illegible]	35·1
22nd January	4	...	117	102	263	486	...	37·2
29th January	9	3	98	87	327	394	...	30·1
5th February	13	3	104	76	341	437	...	33·4

Current Medical Literature.

MEDICINE.

Nerve Deafness in Diphtheria.

AFFECTION of the labyrinth or auditory nerve in diphtheria is of the greatest rarity; it is unmentioned by almost all authorities. The following case is described by Dr. J. C. WILSON in the *American Journal of Medical Sciences* for October 1897. A woman, aged thirty-three years, complained of sore-throat. The tonsils were covered by a dense, greyish-white exudation with abruptly margined borders, surrounded with hyperæmia. On the fourth day there were distressing tinnitus and loss of hearing, which latter became total on the next day. Antitoxin was injected, and the membranes disappeared in the course of two days. The tympanic membranes were bright red, but glistening and not bulging. Bacteriological examination failed to show the bacillus. On the ninth day there was loss of power of the muscles of the back of the neck, and later double vision and paresis of accommodation ensued. The patient gradually recovered and the membrana tympani became normal, but the tinnitus continued. Deafness was absolute with all tests. Six months after the attack the deafness, tinnitus, and slight vertigo persisted, as well as paresis of the muscles of the neck. Dr. WILSON suggests that the failure of the bacteriological diagnosis may have been due to the previous use of antiseptics. He fairly insists that the condition of the throat, the rapid disappearance of the membrane after the use of antitoxin, leaving superficial erosions, and the paresis justify the diagnosis. The deafness was probably due to labyrinthine lesions. MOOS, on examining the bodies of three children who died from diphtheria, found the membranous semicircular canals filled in many places with coagulated lymph, whilst the middle ears showed merely catarrhal changes.—*Lancet.*

Alimentary Glycosuria.

KERNEL has studied alimentary glycosuria occurring after beer drinking. KRATSCHMER has also made some similar observations. KERNEL examined for this purpose some 100 students. He was able to vary the kind and amount of the beer taken, as well as the time of drinking and the diet. The urines of four young brewers who had drunk large quantities of beer in the fasting state or at breakfast time were also examined, and in one case sugar was found. The exact composition of the beer, especially in regard to sugar, was not ascertained. The students examined mostly drank 3 to 4 litres of beer in the morning. Of 87 drinking a lager beer, the sugar reaction was positive in 4 cases, or 7 per cent. In the case of an export beer, 5 out of 14 or [illegible] had glycosuria. In 25 students drinking 1 to 1½ litre of Rosen beer, no glycosuria was observed. Out of 19 cases drinking large quantities of an Ehringsdorf beer in the evening, 1, or 5 per cent., had glycosuria. Of 11 other students drinking largely of all sorts of beer, only 1 had glycosuria. It was often impossible to repeat the examination in these cases. The predisposition of the individual is always important in these cases, for those who drink the most are not always those who have the glycosuria. The more marked presence of the glycosuria in the morning was due to the more rapid absorption. Both STRAUSSLER and STRAUSS showed that alcohol favored the appearance of an alimentary glycosuria. Perhaps the sugar in the urine in these cases was due to the action of the alcohol, but other substances in the beer may be responsible. The author thinks that at the present moment there is no satisfactory explanation of the alimentary glycosuria following upon beer drinking.—*Brit. Med. Jour.*

Habitual Constipation.

THE causes of habitual constipation are: Heredity; the habit of suppressing the desire; unsuitable diet—too abundant, deficient in water, too easily absorbed, or insufficient in variety; sedentary habits (although obstinate habitual constipation may occur even in those who lead an active life); disturbances in the circulation (heart disease, mechanical pressure, pregnancy); displacement of the bowel; intestinal adhesions. The treatment is given as follows: (1) Dietetic, (2) physico-mechanical, (3) medicinal. In the first method, such foods should be given as are known to increase peristalsis. The "physico-mechanical" includes suitable massage (often of great value), electricity and enemata. The disadvantage of enemata is that ultimately small quantities of fluid do not suffice, and large quantities overdistend the intestine and become useless. Regular [illegible] with slight pressure are recommended. Medicinal treatment is discussed under two groups, mild and more powerful purgatives. An efficient rhubarb preparation is very useful. *Calomel is very useful in children. Castor oil is unsuitable for constant use. Large injections of olive oil are of value.*—*Gulland's Med. Jour.*

Chief Nervous Affections of Alcoholism.

ALCOHOLIC coma, delirium tremens with visual hallucinations, restlessness, fear, tremor, and failure of sleep and appetite, acute traumatic delirium occurring after [illegible] mania *a potu* without tremor but with raving and violence, multiple neuritis with loss of tone in the [illegible] and sometimes cranial nerves and nerve trunks, chronic [illegible] [illegible] alcoholic [illegible]

[illegible] interesting interpretation of the [illegible] conditions for determining the character of [illegible] renal calculi, KUMMANN has devised an instrument by which the bladder, especially in women, is divided into equal portions, and the urine discharged into each finds its way out of the ureter through separate channels. This appliance consists in a tube of thin metal 4 cm. long, 1 cm. thick, carrying within its lumen a solid septum extending 4 mm. beyond the proximal extremity and thus forming a partition within the bladder and the ureter 8 cm. long. The divisions formed in the bladder terminate at the distal extremity of the tube in two smaller tubes, to which test tubes can be attached and the secretion from each kidney collected separately. The free proximal extremity of the septum terminates in a blunt point, from which pass off to either side two fine curved wires. The tube and its prolongation are curved after the fashion of Hegar's cervix-dilators, so that the instrument adapts itself readily to the posterior aspect of the symphysis pubis. In the employment of the device the patient sits at the edge of the bed, with the feet supported and the thighs spread far apart. The conical proximal extremity of the instrument is introduced into the ureter with its convex aspect forward. The urine present in the bladder escapes. The viscus is then irrigated with warm boric acid solution and all fluid is removed with the aid of a finger introduced into the vagina. The urine, as it is discharged from either ureter, now collects in the bladder on either side of the artificial septum and is eventually discharged through the small tubes.—*Journ. Amer Med. Assoc.*

Influence of Optic Neuritis on the Treatment of Cerebral Tumours.

J. S RISIEN RUSSELL calls attention to the necessity for caution in certain cases of intracranial tumours in which the presence of optic neuritis may lead to errors of diagnosis and treatment. Too much dependence should not be placed on the existence of neuritis alone in the diagnosis of brain tumour. RUSSELL regards the various causes of optic neuritis, such as are found in albuminuria, lead poisoning, hypermetropia, anæmia, etc., as well as intra-cranial tumour of divers origin, and concludes that while the presence of optic neuritis has a marked influence on the methods which we employ in the treatment of cerebral tumours, there is a risk that too much reliance on this sign as an indication of the existence of such tumours, in the absence of other conclusive evidence of their presence, may lead to errors of diagnosis and faulty attempts at treatment.—*Treatment.*

Treatment of Soft Chancre by Prolonged Irrigation.

Two Italian physicians, MALUSARDI and BONADUCI have been treating venereal ulcers with prolonged irrigations of hot water at a temperature of from 47° to 52°C (108°–117°F.). The irrigations are commenced at the former temperature which is then rapidly raised by heating the irrigator with an alcohol lamp, or more simply, by the addition of some boiling water to that in the irrigator. The irrigation should be interrupted from time to time to give the patient a chance to rest, and the whole *séance*, lasting a half-hour, should be [illegible]. Under the influence of the heat, the ulcer [illegible] very red in a few minutes, and there is a sensation of heat all over the body, accompanied [illegible] by profuse [illegible]. The [illegible] is finally dusted with [illegible] powder, [illegible] light dressing of [illegible]. This method causes the induration on the borders of the ulcer to rapidly disappear, and transforms it into a healthy granulation which heals readily. In the forty-two cases in which the writers employed this plan of treatment from two to seven irrigations were all that were necessary.—*La Semaine Méd.*

A Vesicant of Insects.

MEGUIN dwells on the remarkable disease observed in China amongst the poor, who eat a kind of grasshopper or arachn (*atriplex*). The skin on exposed parts becomes ædematous and itches severely. The symptoms are often attributed to an eczema which is found on this kind of shrimp. But the parasite has not been actually found in any patient. MEGUIN, however, believes that this theory about the Chinese disease is correct, for in Mauritius there is an eczema known as holothyrus coctosella (Gervais), which abounds in moss, in the cold and damp highlands of the island. Poultry cannot be reared in these districts as the parasite causes fatal pharyngitis. Native children suffer in the same manner. Some specimens of holothyrus were sent to MEGUIN. They were all dead. He fixed them by snapping to his forearm. In a few hours they set up severe irritation, œdema, and prurigo. The live holothyrus must be a powerful irritant to mucous membrane. It measures under one-fifth of an inch in length.—*Brit. Med. Jour.*

Treatment of Carbuncles with Paquelin's Cautery.

MOTY reports a case of anthrax affecting the lower lip, with secondary foci on the breast, the forearm, and the shoulder, treated by puncture with Paquelin's cautery at each suppurating orifice and subsequent dressing with carbolic acid. In some of the smaller foci the disease was checked at once by the puncture, and no more pus was formed. As for the deep-seated ones, the author remarks that the patient's sensations are the best guide to their situation, for at first they do not betray themselves by physical signs, yet it is of importance to treat them promptly whether pus has formed or not. The part may be cocainised before the cautery is applied.—*N. Y. Med. Jour.*

Paralysis of the Intestines after Abdominal Operation.

ENGSTROM says that paralysis of the intestines which follows laparotomy, sometimes producing death, does not always result from sepsis. He cites four cases in which death followed operation after fifty-seven hours, seven, eight, and ten days respectively. In these four cases there was not the least trace of peritonitis, which there would certainly have been if death had been due to sepsis after such an interval of time. Moreover, in one case the contents of the abdominal cavity were examined bacteriologically one hour after death and were found to be absolutely sterile. According to the author, a careful stimulation and nutrition of the patient, if necessary, per rectum, is a most important factor in preserving life.—*Med. News.*

New Incision for Appendicitis.

VIENNA reaches the appendix by an incision one inch above and parallel to the iliac crest, from the edge of the external oblique to a point just above the anterior superior spine of the ilium. The muscles, which are better developed here, are separated in the direction of their fibres, and the belly opened. The advantages claimed are the impossibility of hernia, because of the patient's position; the most dependent point for drainage; and the facility with which the appendix is found. The greatest objection is the extreme depth of the wound.—*Med. Press.*

OBSTETRICS AND GYNECOLOGY.

Early Incision of Cervix in Labor.

HERRMAN published last year an important report, in the Bohemian language, on the results of this practice, after SKUTSCH and PUNKOSER, in the Prague Maternity School. In 2,853 labors (1892-95) incision was practised 24 times, namely, one incision in 1 case, two incisions in 8 cases, three in 9, and four in 6. In 11 cases the incisions were sutured after labour, 7 uniting down to the edge of the external os by first intention. The indications for incisions were: prolapse of cord 8 cases, eclampsia 3, dangers threatening fœtus 17, cancer of the portio 1. Delivery was completed by symphysiotomy and forceps in 3 cases, by the forceps alone 14, by turning and extraction 5, and by perforation and craniocleasty in 2. The presentation was: vertex 21, face 1, brow 1, and transverse 1. The pelvis was capacious in 9 cases, and contracted more or less in 15. In 3 cases the incisions were enlarged by laceration, in 3 they bled severely, the hæmorrhage required the tampon in 1 of these cases, and was checked by suture in the others. In several cases median incisions were made into the vagina and perineum. Of the children, 14 were born active, and 8 in suspended animation (6 saved), whilst the remaining 2 were the craniocleasty cases. The puerperium was normal in 17 of the patients; in 3 there was a slight rise of temperature, in 2 parametritis, in 1 mastitis, and in 1 endometritis, salpingitis, peritonitis, and fatal sepsis. This patient was mentally afflicted and very uncleanly; there was strong evidence that the artificial incisions were not the channels of infection.—*Brit. Med. Jour.*

Early Symptoms of Puerperal Infection.

SLIGHT elevations of the temperature (37 to 38·2 degrees, axilla), usually once a day, sometimes more frequently, separated by intervals of lower temperature; the pulse more rapid even when the temperature is not elevated, 80 and above. The sleep at night is also an important indication, as good sleep denotes a more favorable prognosis, while insomnia in connection with higher temperature and more rapid pulse, with a sensation of chilliness in the back, trunk or limbs, and a change in the lochia, as decrease, suppression, fetidity, indicate approaching infection.—*Jour. Amer. Med. Assoc.*

Forceps Delivery.

DR. DAVIS, in a recent lecture on *delivery by forceps*, stated that the instrument which, at the present time, is giving the most general satisfaction, not only in his hands and the obstetric clinics in this country, but also abroad, is that known as the Simpson forceps. It is necessary that the instrument should be well made and long enough for high application. The efficiency of the forceps is greatly increased by the use of axis traction tapes. These may be passed through the fenestra, or, what is better, the blades may be perforated by two holes, through which the tapes should be passed. An axis traction bar, while convenient, is not essential.—*Phil. Poly.*

Effects of Hereditary Syphilis upon the Placenta, Cord, Fetus and Child.

J. D. BISSELL, writes.—The cause of death of syphilitic children in utero, is in the vast majority of cases due to a diseased condition of the placenta or cord rather than to the breeding of the syphilitic virus in the fluids of the fetus itself. Six cases are reported, three of which were born dead and macerated, and in each there were positive evidences of fatal interference of the blood supply to the fetus. In the cases born alive, no evidence of disease was appreciable in the placenta or cord. In one of the cases the vessels of the cord were occluded for about three inches by a deposit, the result of inherited syphilis. Another case presented a placenta which had undergone cheesy degeneration; it was [illegible] yellowish in color, very friable, the disease being confined to the villi, transforming the placenta into a nonfunctionary organ. At the junction of the cord with the abdomen there was a failure of development in the umbilical vessels, the vessels being patulous, but not sufficiently so to allow the requisite amount of blood to pass to and fro, which undoubtedly was an active factor in the early death of the fetus. Hydramnion, a condition somewhat characteristic of a syphilitic pregnancy, occurred in another case, evidently the result of interference in the fetal circulation occasioned by the diseased placenta. Another died at five and one-half months due principally to failure of development of the umbilical vessels."—*Phil. Poly.*

Sudden Death in the Puerperium.

1. PULMONARY embolism is the cause of death in most of these cases. 2. It is rare, but so shocks a community when it occurs that it is advisable to take every precaution to guard against it. 3. Phlebitis, varicose veins, prolonged labor, hemorrhage, anæmia, sepsis, cancer, syphilis, etc. predispose to its production. 4. In the presence of peripheral thrombosis, etc., absolute rest must be enjoined, especially between the second and third weeks of the puerperium, as this is the disintegrating period of the clots. The danger should also be explicitly pointed out to both patient and attendants, thus insuring to some extent a healthy co-operation. 5. The extreme changes in the blood usually ascribed to pregnancy and the puerperium are erroneous, and not corroborated by modern investigation. 6. Sudden death from air embolism in the puerperium is doubtful from physiological, pathological, and rational stand-points. 7. Shock is both a direct and indirect cause of death in the puerperium, and should be guarded against. 8. Organic heart affections, kidney trouble, etc., are capable of producing death at any time, and should not be overlooked in the puerperium.—GALTMAN. *N. Y. Med. Rec*

Ligation of the Bases of the Broad Ligaments for Interstitial Uterine Fibroids.

MARTIN summarizes as follows:—"It is a minor operation: reduces the tumor by starvation, and cures the hemorrhage by depriving the uterus of two-thirds of its blood-supply; does not unsex; is applicable when radical measures cannot be undertaken, because of the condition or fear of the patient, or because of mechanical obstacles; and it is specially indicated in small bleeding fibroids occurring at the menopause. It is not applicable to pedunculated, subserous, or submucous fibroids. In fourteen cases, in which two or more years has elapsed, there has been one return of hemorrhage and one of pain."—*Phil Poly.*

Hypodermic Injections of Cocaine in the Vomiting of Pregnancy.

IN five cases of the vomiting of pregnancy where morphia injections and cocaine given by the mouth had failed, Professor TIBONE, of the Turin Obstetric Clinic, was able to effect an immediate cure by means of hypodermic injections of hydrochlorate of cocaine. One-seventh of a grain was thus administered just before food was taken, the puncture being made in the epigastrium and the injection repeated two or three times a day. It was found that this enabled the patients to retain their meals, and under this treatment they increased in weight and their condition improved in a marked degree, no unpleasant effect on the pulse, the respiration, or the temperature being observed in any of the cases. As soon as possible, of course, the cocaine was stopped and the vomiting did not show any tendency to return. Dr. PENZI, who writes on these cases, suggests that it is probable that similar treatment may be found valuable in vomiting due to other causes.—*Lancet.*

[illegible]

[illegible] Chronic [illegible]

[illegible] with Blood Dissolution.

As a result of observations in a case of malarial intermittent fever, supplemented by experimental studies in which blood dissolution in animals was effected in various ways, Zuntz found that such dissolution is attended by a considerable degree of leucocytosis, together with metabolic changes, as manifested by increased elimination of uric acid and xanthin bases, primary increase with secondary diminution in the elimination of phosphoric acid; and increased elimination of chlorides. The chlorides and the phosphoric acid appear to stand in vicarious relations with one another, the retention of the one corresponding with increased elimination of the other. The increased elimination of alloxur bodies is dependent principally upon destruction of the leucocytes. Probably other nucleated cellular elements take part in this process, and in slight degree also the nuclein containing albuminous constituents of disintegrated red blood cells. The mother substance for the formation of alloxur bodies is in large part contained in the plasma and the serum and in smaller degree in the red blood corpuscles. The amount of uric acid-forming substance depends upon the number of leucocytes in the blood. Normal blood serum induces only a slight increase in the elimination of alloxur bodies and leucocytosis; typhoid serum none at all; and leukæmic serum a very considerable increase. The primary increase induced by leukæmic serum results from the presence of uric-acid-forming substances; the secondary increase is the result of the increased production and destruction of leucocytes dependent upon the activity of the leukæmic serum. The leucocytosis attending blood dissolution is an effect of the co-operation of three causes: (*a*) the direct leucotactic action of the blood poison; (*b*) the chemical substances (especially nucleins) set free as a result of the destruction of the cellular elements of the blood; (*c*) the remains of disintegrated blood corpuscles circulating in the blood. The leucocytosis induced by injection of corpuscular elements into the blood is a pure phagocytosis and leads to no notable destruction of leucocytes. The increased destruction of leucocytes in the blood in cases of infectious diseases is due to the presence of a leucocytolytic substance. —*N. Y. Med. Rec.*

Diagnostic Importance of Chloride in the Urine.

In chronic affections it seems to be definitely established that progressive or abrupt diminution of the chlorides in the urine indicates a serious phase of the disease, when it is not due to special alimentation. Fieux contributes to the *Arch. Clin. de Bordeaux*, September, a study of the chlorides in the urine of pregnant women, concluding with the statement that the passage of chlorides into the urine is in direct proportion to the permeability of the renal filter for toxic products, and hence, in normal pregnancy or with slight albuminuria, the amount of chlorides is always large, averaging 15 grams and never less than 12 grams in twenty-four hours. But if the albuminuria is complicated with vomiting, vertigo, etc., the amount of chlorides is materially diminished and evidently in parallel proportion to the degree of intoxication. Abrodobrevitch having observed that the vomiting of pregnancy resembled the symptoms of animals deprived of salt, administered saline in large quantities and obtained a prompt, complete and permanent cure. He reported as follows: Moreover that his usual combination is Bouchut's saline: mixture, phosphate of lime, Glauber salts and bromides.—*Jour. Amer. Med. Assoc.*

[illegible] of Chronic [illegible]

[illegible] "hepatitis," leading to cirrhosis, is never due to [illegible] interstitial inflammation, but that it depends [illegible] on an inflammatory process, affecting the glandular cells of the peripheral parts of the acini. Human cirrhosis, he thinks, corresponds exactly with experimental cirrhosis as produced by phosphorus. Rabbits were injected with 1 or 2 mg. of phosphorus dissolved in olive oil. According to their individual powers of resistance to the poison the rabbits lived different lengths of time. Thus of 5 rabbits experimented on, 4 died after two injections of 2 mg., whereas 1 lived to receive sixty-nine injections of 1 mg. The liver of the last-mentioned rabbit was found to have a finely granular surface, analogous to that seen in human cirrhosis of the liver. In the experiments ascites twice occurred, but jaundice never. In some cases albumen and hyaline casts were found in the urine. Wegner thought that large doses of phosphorus affected the hepatic parenchyma, whereas small doses affected the interstitial tissue; but Auvrement thinks he has proved that the hepatic cells are the only part ever affected. The difference he finds is that with large doses all the cells of the acini are damaged, whilst with frequently-repeated smaller doses the peripheral portions only of the acini are affected; in the former case the hepatic cells may be destroyed and their nuclei may disappear, but in the latter case no cells are destroyed, though the protoplasm of the affected cells is diminished, so as to give rise to the erroneous supposition of interstitial inflammation with newly-formed tissue between the acini.—*Brit. Med. Jour.*

Toxins and Antitoxins.

Much speculation has been expended upon the origin and nature of these substances. Do they exist in the serum or cells of the blood? Have the cells anything to do with their production? After they are formed are they purely inert substances acting in a chemical manner? Many such questions have engaged the attention of workers in the past and will continue to do so in the future. Recently Calmette and Delanade have contributed a most interesting paper in which they suggest that immunity, whether natural or acquired, may be a physical and not a chemical phenomenon. They investigated the antitoxic properties of blood serum from various animals, taking the reaction to doses of abrin, as the most frequent criterion. The following are some of their results:—(1) The serum of animals, naturally refractory to certain toxins, has no action thereon *in vitro*. (2) Cold-blooded refractory animals can acquire immunity against fatal doses of toxin, without their serum becoming antitoxic. (3) Antitoxin, or at least the active substance of certain antitoxic serums does not alter toxins when mixed with them *in vitro*. (4) Leucocytes may retain their antitoxic powers after being thrice washed free from serum. (5) Certain inactive substances, such as bouillon, or normal ox serum (having no action on toxins), may, when injected into fresh animals, confer more or less perfect immunity upon them. They therefore think that immunity cannot be due to the presence of a chemical substance in the serum, having the power of altering the toxins; and, further, that it more probably results from a special property of the cells. They cleverly suggest that these may yield passively to the influence of toxins, as a bar of soft iron does to a magnet. The functional state of the cells may be modified by the conditions of the surrounding medium, or their own composition, as under the influence and tolerance of certain poisons; just as the bar of soft iron may be converted into steel, and yet retain its magnetisation and its power of transmitting it.—*Edin. Med. Jour.*

PUBLIC AND SOCIAL MEDICINE AND JURISPRUDENCE.

Funeral Dangers.

The old saying that "there is never a bitter but another is worse" might be adapted to funerals. Too often the conventional mode of showing respect to the dead leads in its turn to deaths. By a sad coincidence, a correspondent had addressed to us a letter on this subject, when the tragic death of Mr. CHARLES HARRISON occurred to point the moral he wished to draw. There can be little doubt that the sudden attack of edematous laryngitis which terminated Mr. HARRISON'S useful life was due to exposure during his attendance at the funeral of Sir FRANK LOCKWOOD. It is suggested that the use of a skull cap, such as the late Dean STANLEY used habitually to wear even on ordinary occasions at the Westminster Abbey services, would prevent danger, and this might do something to diminish the risk. But the fact is that the depression produced by all the circumstances of a funeral, and the sudden change from a hot carriage or a crowded church to the damp grass and chilling air of a cemetery are very apt to produce a chill which settles on a man's weak point. In the case of Mr. HARRISON, who had long suffered from a chronic laryngeal affection, it was the larynx, but in another it may be the lungs, in another the kidneys. In Scotland, we believe, and certainly in many Latin countries, it is not the custom for ladies to attend funeral ceremonies; and the modern custom of holding a special service which may be attended by friends, while only a few near relatives go to the cemetery, has much to commend it, and probably in time will afford at least a partial remedy.—*Brit. Med. Jour.*

Disseminated Knowledge of Hygiene.

BUNGENSTEIN, of Vienna, urges the establishment of special chairs of hygiene in the medical colleges to train young physician-hygienists for the purpose of instructing the public in the principles of hygiene. The State should appropriate funds to support this propaganda, and send qualified persons into the rural districts to lecture and demonstrate the subject with special efforts during fairs and similar gatherings. Pamphlets describing the proper measures to be taken should be given to parents when births are reported, children inscribed in the schools and on other occasions of the kind. The influence of the clergy should be utilised and the theologic seminaries should have facilities for the instruction of the students in the principles of hygiene, which should also be taught the children in the schools.—*Journ. Amer. Med. Assoc.*

Dangerous Fruit Preservers.

THE *Sanitarian* warns women against the various antiseptics sold to preserve fruit. Salicylic acid is the main substance of which they are composed. Salicylic acid is a powerful antiseptic; it hinders or prevents fermentation, the souring and putrefaction of milk. It completely arrests the conversion of starch into grape sugar. This action is directly opposed to the process of digestion, and for this, if no other reason, its use should be universally condemned. The use of the acid has been condemned by most of the European countries having pure food laws. In France it is forbidden. In Austria, Italy, and Spain it cannot be used without the danger of incurring a heavy penalty, and all South American States having poor food laws have absolutely forbidden its sale. The laws of many of the States forbid its use. Its use in food is prohibited in Pennsylvania.

Preservatives, under various high-sounding names, intended for use in private families, and said to be perfectly harmless are on the market. Salicylic acid is their main ingredient. The conscientious and careful housekeeper should put an absolute ban upon the use of any such preservatives. There is rarely any need for them; ripe fruit and fresh vegetables are near and the proper directions for sterilizing by heat, etc., are carried out, delicious preserved goods of all descriptions can be prepared that will remain in good condition for years without the aid of any poisonous substance. Any good housewife who has an inkling of hygiene takes a womanly pride in putting up her fruits in a hygienic way and treats to no short cut to save a little trouble and care. She knows that in the end it costs more and endangers, to some extent, the health of her family and herself. It is only the slipshod, don't care, careless or ignorant woman who uses the cheap drugs to preserve her fruit.—*Med. and Surg. Rep.*

Worry.

MODERN science has brought to light nothing more curiously interesting than the fact that worry will kill, and the way in which it kills is stated to be that worry injures beyond repair certain cells of the brain. The brain being the nutritive centre of the body, the other organs become gradually injured, and when some disease of these organs or a combination of them arises, death finally ensues. Occasional worrying of the system the brain can cope with, but the iteration and reiteration of one idea of a disquieting sort the cells of the brain are not proof against.—*N. Y. Med. Rec.*

Antisepsis of the Barber-Shop.

PARIS barbers and hair-dressers are now obliged in accordance with police regulations to employ sanitary measures in carrying on their business. They are required to use only nickel-plated combs, to substitute pulverizers for powder-puffs, to cover the hair cut off with sawdust, and have it promptly removed, and to place all metal instruments, razors, shears, combs, clippers, etc., in a sterilizer for ten minutes before they are used.—*Med. News.*

Notification of Puerperal Fever.

IN a report lately issued by Dr. MEREDITH YOUNG, of Crewe, dealing with questions arising under the Infectious Disease Notification Act, he says of puerperal fever:—"In my experience, the notification of this disease proves too great a strain upon the loyalty of many medical practitioners, this being the case specially with regard to better class patients. The diagnosis of the disease should not prove a difficulty, for the term puerperal fever in modern medicine signifies puerperal septicæmia, a form of the septic disease familiar to all surgeons. It is not a specific fever such as typhoid, for example, but a form of blood poisoning, brought on specially during the lying-in period by such things as bad hygienic surroundings, the use of dirty instruments, sponges, etc., and contact with infectious diseases such as erysipelas and scarlet fever. Being extremely infectious, and being also likely to be carried about by nurses and midwives, it is highly important that it should be notified, and notified most loyally, to those having the control of the public health administration."—*Treatment.*

Morphine Habit as a Legal Defence.

A kleptomaniac in one of the British courts plead guilty, and her counsel assured the bench that she was in no want of money, but had sufficient means to enable her to live comfortably, and asked that she be treated leniently on the ground that the theft was due to the effects of the excessive use of morphin. According to the testimony, she had consumed ninety-six grains of morphin in a single week. The magistrate suspended judgment, upon the defendant giving security in £50 to appear for sentence when required. De QUINCEY'S daily consumption of laudanum was nine ounces, and there is a case on record where 180 grains of opium were taken at once without producing death. The tolerance of opium and its salts proves in reality much more than old women's fables, and instances of abnormal dose are in the possession of nearly every family practitioner. A poisonous draught of laudanum cannot be measured by ounces on record.—*Jour. Amer. Med. Assoc.*

THERAPEUTICS AND PHARMACOLOGY.

Hydrocyanic Acid as an Antidote to Chloroform.

Mr. Percy Gossage, of London, observing that the respiratory centre was usually paralysed first when death occurred during chloroform anæsthesia, thought that hydrocyanic acid might prove of service as an antidote where the breathing was becoming shallow and weak, on account of the rapid and powerful temporary exciting effect this drug exerts on the respiratory centre. He administered hydrocyanic acid successfully in thirty-one cases of chloroform poisoning in animals mostly dogs, though some were cats, and the list includes also one calf, one sheep and one horse, the cases were those in which during anæsthesia the breathing either stopped suddenly or became gradually slower. The hydrocyanic acid was administered in some cases hypodermatically, in others was placed on the tongue. The good result was generally manifest in a very short time—half a minute to two or three minutes—the respirations being resumed and becoming strong and regular. In some of the cases, owing to the dose of hydrocyanic acid being rather large, the breathing became laboured, when the administration of chloroform was resumed, so that a balance could be kept up between the toxic effects of the two drugs. These observations led fairly to the conclusion that hydrocyanic acid is of value as an antidote to chloroform, its beneficial effects being due to its property (when given in certain doses) of rapidly and violently stimulating and exciting temporarily the respiratory and cardiac centres, and so counteracting the depressant and paralysing effects The drug should be placed on the back of the tongue or injected hypodermically. In all his cases Scheele's acid was used, and he prefers it to the B P. acid on account of its greater strength and consequent rapidity of action. For animals he considers one minim of Scheele's acid for every seven or eight pounds of body weight to be a fair average amount. It is well not to be too anxious to administer a second dose till perfectly sure the first has been futile.—*Med & Sur. Rep.*

Compound Tincture of Benzoin in Enteric Fever.

James C. Porter, M.B, C.M., writes in the *British Medical Journal*:—

"Lately I have had under my care several cases of enteric fever with excessive diarrhœa. I have in these cases tried a mixture of compound tincture of benzoin and water with marked success. I start by giving a dose of m v of the tincture every two hours, and if the diarrhœa does not decrease in twelve hours I then double the dose. In all the cases after twenty-four hours' administration I have found marked benefit, the diarrhœa decreases, the stools are not so offensive, and the temperature is decidedly lowered, and the patient feels very much more comfortable. I attribute the success in these cases to

"1. The internal antiseptic property of the drug.

"2. The mixture forming a protecting coat to the inflamed bowel.

"3. The antipyretic action of the drug."

Depilatory.

The following is considered the best and safest formula:—

Sulphide of barium, in fine powder	... 2 oz.
Starch, powder	... 5 oz.

Mix.

Make into a paste with water at the time of using, spread over the part required, and remove at the end of ten minutes.

Formulæ for Surgery.

R Subnitrate of bismuth	... 1 drachm.
Powdered camphor	... 10 grains.
Benzoated boric acid	... 20 grains.
Hydrochlorate of morphine	... 1 grain.
Hydrochlorate of cocaine	... ½ grain.
Powdered benzoin	... 35 grains.

A pinch of this to be snuffed up the nostrils.—*Therapeutic Gazette.*

Liniment for Hyperidrosis and Abrasions.

R Glycerated soft soap	... 52 parts.
Water	... 27 "
Vaseline	... 15 "
Zinc oxide	... 6 "
Essence of lavender	... a sufficiency

M. —*Progrès Médical*

Palatable Castor Oil.

In the case of children who object to taking castor oil the dose may be made much less disagreeable if the oil is combined with glycerine and tincture of cardamoms, as follows:—

R Ol. ricini	... ... ℥ ss
Glycerini	... ... ʒ iii
Tr. cardamomi comp.	... ... ʒ i.

M. Sig. One dose.—*Med. News.*

Ointment for Hæmorrhoids.

R Sweet almond oil	... ... 2 drachms.
Oxide of zinc	... ... 1 drachm.
Bismuth subnitrate	... ... 1· drachm.
Benzoinated lard	... ... 6 drachms.

—*Chemist and Druggist.*

Chloral Pleasantly Combined.

R Chloral hydrat	... ... ʒ i. ℈ i
Tinct cardamomi	... ... ʒ ss
Syrupi	... ... ʒ i
Aquæ cinnamomi. q. s. ad.	... ℥ i

M. A teaspoonful contains 10 grs of chloral.—*Med. News.*

Sea-Sickness.

R Chloroform	
Tincture of nux vomica	... ...aa gtt. x
Compound tincture of lavender	... ʒ i.
Water	... ... ʒ x.

M. A teaspoonful to be taken every hour until the vomiting and nausea have subsided, care being taken to shake the bottle each time before the dose is poured out.—Barnes.

Ovarian Headache.

R Ammon. bromid	... ... ʒvj
Ext. hydrastis fl	... ... ʒss.
Tr. gentian. co	... ... ʒiss.
Aquæ	... ... ℥iv.

M. Sig.: Dessertspoonful three times a day.—Dr. Silas Mann; *Med. News.*

For Acute Rheumatism.

The following combination has been highly recommended:

R Ammonii salicylatis	... ... ʒiii
Liq. pepsini	... ... ℥iv.

M. Sig. Teaspoonful in water every two or three hours.

Correspondence.

REFORMS IN THE MILITARY ASSISTANT SURGEONS' SERVICE.

To the Editor, "Indian Medical Record."

Sir,—Having read the numerous letters in the *Record* and the petition the Indian Medical Association were so kind as to submit to the Director-General, I.M.S., on behalf of the Military Assistant Surgeons, for which we are very grateful, I take the liberty of sending you my views on the re-organisation of the I. S. M. D. (in whose ranks I have served for the past thirty-seven years) in the hope that you will give them room in your valuable paper. I propose to treat the subject under the following heads: (1) Recruiting, (2) Training, (3) Status, (4) Pay, Furlough Pay, and Pension, (5) Allowances, (6) Quarters, (7) War Reserve.

Recruiting.—The orders regarding the class of recruits are clearly laid down (*i.e.*, Europeans and Eurasians), it goes without saying that several who have joined us are pure and simple *native* converts.

This condition of affairs should no longer be permitted to continue, as the element exists to an alarming extent already in the three services. There is no dearth of recruits. Let the Government pay a fair price, and the best article will be forth-coming, and we members, who at present are indifferent, would materially help the Government, were we to see tthe Government willing to meet us half way in our appeals.

I beg to submit that, all lads desirous of appearing for the examination for entrance into college, should present themselves at Military Hospitals only, there to be examined by an officer of the A. M. S. as to physical fitness, this officer also reporting on the desirability of the recruit. My reason for insisting that all candidates be reported on by an officer of the A. M. S., is that the A. M. S. officer is in daily contact with Military Assistant Surgeons, and it is only fair that he should have a voice in the matter, and be allowed to pick his own material.

Training.—Military Pupils should be termed "Military Medical Cadets," and should, in addition to the present medical education, be brought under thorough military discipline and training, the same as recruits in the Army (drill, including stretcher drill, gymnastics and, if possible, riding drill). An Adjutant to the Principal of the college to be appointed from among the Surgeon-Captains of the A. M. S., with a personal allowance of Rs. 100 per mensem and presidency house rent, with a tenure of office for 3 years.*

A first class Assistant Surgeon (under 5 years) as Superintendent, with an allowance of Rs. 45 per mensem and free quarters. Tenure of office 5 years. A Sergeant-Major, as drill and gymnasium instructor and disciplinarian.

A sufficient number of selected 4th year cadets to be made Sergeants, wearing badges of rank and receiving a small extra allowance. All cadets, on joining college, to be supplied with uniform, and compelled to wear the same within college precincts. Prior to leaving college and joining appointments, a kit allowance of Rs. 150 be granted to each cadet, the same as is granted to successful military students from Roorki, *vide* Vol. II., part II., para. 1330 W.

Status.—The first requirement is a change of designation for the department. I would suggest, with all due deference, that it be known as the "Army Hospital Staff," consisting of Commissioned, Warrant and Non-Commissioned Officers as follows:—

(1) Surgeon-Majors.
(2) Surgeon-Captains.
(3) Surgeon-Lieutenants.
(4) 1st class Assistant Surgeons.
(5) 2nd class Assistant Surgeons.
(6) 2nd class Assistant Surgeons (under 5 years).

As the three senior grades are substantive Commissioned Officers with honorary rank, given in recognition of long and good service; the rank should be made substantive and the cumbrous designation of Senior Assistant Surgeon dropped.

Junior Warrant Officers should serve seven years in the lowest grade, promotion depending on their successfully passing an examination, for which they may be permitted to appear on completing five years' service.

I hold that, at present, lads joining from college do not appreciate their position, in fact have no idea of it, and as a consequence cannot maintain it. They should not be permitted to marry until after five years' service, and then only on sanction being obtained from P. M. O's. of districts.

Promotion to be obtained in the higher Warrant grades after five years service in each grade.

Promotion from the Warrant to the Commissioned grades by seniority and selection.

(*a*) Proportion to strength of Department
Juniors (both grades of 2nd class) ... ⅓
Senior Warrant Officers ... ... ⅓
Commissioned Officers ... ... ⅓

(*b*) Proportion in Warrant grades, one third in each of the three grades.

(*c*) Proportion in Commissioned grades, half as Surgeon-Lieutenants and half as Surgeon-Captains, out of whom specially selected officers receive commissions as Surgeon-Majors.

Distribution.—All 2nd class Assistant Surgeons under eight years' service to be Junior Warrant officers, and to rank as Sub-Conductors. 1st class Assistant Surgeons (under 5 years) to rank as Conductors, and those over five years' service as 1st class Warrant Officers.

Pay, Furlough Pay, and Pension.

Rank.	Pay per mensem Rs.	Furlough Pay £.	Pension 5 years Rs. per mensem.
2nd class Assistant Surgeons (under 5 years).	100	50	60
2nd class Assistant Surgeons (over 5 years).	150	100	100
1st class Assistant Surgeons ...	250	150	120
Surgeon-Lieutenants	350	200	180
Surgeon-Captains	450	250	200
Surgeon-Majors	500	300	240

* We fail to see where the need of a medical adjutant comes in.—Ed., I. M. R.

* If a descriptive name is required, since jealousy forbids I. M. S. or A. M. S. perhaps the term Anglo-Indian Medical Staff will be allowed.—Ed., I. M. R.

Scale of pay while on leave in India to be as now obtains.

The present cost of the Military Assistant branch of the I. S. M. D. in the whole of India, on account of pay only, amounts to about Rs. 8,60,000 per annum (exclusive of the amount allowed for house-rent). The new scale, as in table above, would amount to Rs. 10,31,000, this after deducting Rs. 3,900 on account of rent paid by members of the service showing an excess of Rs. 1,73,000 (per annum). This amount, for the whole of India is trifling, and it would remove an acknowledged grievance. It is generally admitted that this department is the worst-paid of all the military services. The maximum pay asked for, is what is drawn by Officers of the Ordnance and Commissariat Departments of the Army.

ALLOWANCES.

(*a*). *Medical charge allowance as at present* :—

(*b*). Sub-Medical Charge Allowance.	No. of Beds.		Amount.	Remarks.
	From	To		
Station Family Hospitals ...	...	...	Rs. As. P. 30 0 0	When outside the Station Hospital compound.
General, Field, Section of Field, Station, Section or Non-dieted Hospitals ...	1	99	30 0 0	
Do. do. ...	100	149	45 0 0	
Do. do. ...	150	299	60 0 0	
Do. do. ...	300	499	80 0 0	
Do. do. ...	500	700	100 0 0	

(*c*). *Travelling Allowance*—By road, rail or steamer, with or without troops or on field service, Rs. 2 per diem (inclusive of horse allowance).

(*d*). Passage by road, rail, or steamer as at present; except that first class Assistant Surgeons be allowed two servants, and three maunds of baggage.

(*e*). Allowance for Medical Store Depots as at present.

(*f*). Detention allowance to Warrant and Commissioned Officers when attending Court-Martial at out-stations and during short stays, less than 20 days, as given to members of other departments.

Quarters.—On this subject much heart-burning and worry have been experienced, and some injustice done.

It is well known that officers and subordinates of the Military Works Department consider that quarters for Assistant Surgeons being free, they can be housed anywhere, so long as they get the authorised space. Witness Allahabad, Delhi, Meerut and Pindi, where Assistant Surgeons are located in the same building as venereal patients. In the last-named station an elephant shed in the R. A. lines some distance from the hospital, was converted into two sets of quarters for third class Assistant Surgeons. Again in most of the Murree Gullies and in Chirat, every one entitled to Government quarters is well housed, except Assistant Surgeons, who are supplied with tents.

I think rent should be paid for Government quarters at the rate laid down in para. 176, Bengal Barrack Regulations for Warrant and Commissioned Officers of other Departments as follows :—

Rank.	Rate per mensem.		
1st and 2nd class Assistant Surgeons	12	0	0
Surgeon-Lieutenants	25	0	0
Surgeon-Captains	30	0	0
Surgeon-Majors	50	0	0

Camp equipage on line of march, in camps or on field service, free.

WAR RESERVE.

It has been generally acknowledged that the Department is very short-handed, hence a considerable increase in the numbers is most urgently needed.

The present war reserve of 20%, and 15% reserve on account of leave and sickness, is, I think, sufficient to meet requirements.

The war reserve to be kept in civil employ, but the present system of selecting officers for civil posts requires careful revising, as a glance at the Army List will show.

All officers in civil work should be seconded, and temporary promotions made in their place.

Yours &c., SENIOR ASSISTANT SURGEON.

:o:

ERRORS IN THE SANITARY ADMINISTRATION IN INDIA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Now is the appointed time, the supreme moment, to press home to the Government of India, the need of sanitary reform throughout the land. If ever there was a disease which has been fought successfully by modern hygiene, it is plague. Sindh only shows it too plainly as well as Poona and Bombay. Thanks to Sir ANTONY MCDONNELL, who is a thorough sanitarian at heart, and possesses an enviable knowledge of State Medicine, the North-West Provinces have been kept free from the epidemic, although two attempts have been made by this fell disease to obtain a footing. We are aware unfortunately of the history of recrudescence in Poona and Bombay, mainly owing to a relaxation of sanitary measures after a false abatement for a small period. Had sanitary measures been carried on vigorously as they were at one time, for at least six months after the entire cessation of the disease, we would not now be in the dire predicament of being at our wit's end. What is required now is not fault-finding, although there is great room for it, but a complete change in the whole of the sanitary department. Hitherto Civil Surgeons have been ex-officio Health Officers in addition to their other multifarious duties. Work has been done in a very cursory and half-hearted way, especially where a large *private* practice has to be attended to. Dr. HARRY, in his report on Poona, condemns the sanitation of the city in scathing terms. Might I enquire whose

fault is it that it is so? The profession in India have either not paid any attention to their legitimate duties, or have been under the impression that the Health Officership of a town was not one of their privileges. And this will continue while the system of private practice is allowed to Government doctors. The salary from Government is secured to these men, and their only desire is how to amass money from private enterprise. The Government of India, following the lead of other civilized Governments throughout the world in this respect, never undertook the provision of medical aid for India into its own hands. It established medical Colleges and Schools where doctors could be trained, thence to be dispersed throughout the population. This is the way to supply the need. Independent Englishmen and other European medical practitioners have also settled in goodly numbers in India, to follow their avocation. But this privilege of private practice to State-paid doctors has so far entirely prohibited the development of the noblest of professions. We have no eminent scientists, we have not made any important discovery in medical science, although we have held India for over a hundred years Diseases special to India are studied for us in Europe, and we sit quietly at home drawing our salaries, and thinking of the time when we can comfortably enjoy our pensions in suburban villas in London, however little we might have done to earn them. The pages of the *Lancet* or *British Medical Journal* may now and then be glanced over, but a microscope is seldom manipulated by us. Some of us don't know how to use it, although "Carpenter" may adorn our shelves. It is too much trouble to use it, or to learn its use after the practice of the day is over. I say the time for this happy-go-lucky system is past. The Government must get the worth of its money by making Civil Surgeons directly responsible to the Sanitary Commissioner in all questions of State Medicine, and appoint separate Health Officers for all the larger towns. Speaking for the North-Western Provinces, I would advise the employment of separate Health Officers for the towns of Allahabad, Lucknow, Cawnpore, Benares, and Agra at once. In the smaller towns, the Civil Surgeons must be made to visit each street and lane daily and report to the Chairman of the Municipal Board every morning on printed forms the prevalent diseases, sanitary suggestions, together with the births and deaths registered. Private practice must be entirely stopped; the Indian Medical Association guaranteeing to provide a medical practitioner for every station where the Government doctor is prohibited from practice.

We are not doing our plain and simple duty to India, and if we do not care for the censure of other nations in this respect, there ought to be some awakening in our inward consciences, some self-examination, some self-condemnation to prove to us that this official monopoly may enrich a few but is not fair dealing, for it is absolutely cruel to India. God never destined England to conquer India for the purpose of dishonestly administering its affairs.

Yours &c., BRITANNICUS.

BOMBAY, *2nd February 1892.*

THE WAR RESERVE OF ASSISTANT SURGEONS.

To THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The following is a resume of the Government Resolution on the decision to extend the system of forming a "War Reserve" of Military Assistant Surgeons for the British Army in India:—

With the view of creating an adequate War Reserve of Military Assistant Surgeons, the Government of India has decided to extend the employment of such officers in the Civil Department. The scheme has for its objects an extension of the present system under which Military Assistant Surgeons are employed in the Civil Department in time of peace, their services being available, on emergency, for Military duty or active employment in the field. Arrangements have accordingly been made to reserve a certain number of civil appointments under the several local Governments and administrations for Military Assistant Surgeons. It was further considered desirable to reserve certain appointments on State Railways, and, with the consent of the Companies, on Guaranteed Railways as well. Certain Local Governments and Administrations controlling railways were accordingly asked to co-operate in the scheme, and the question of applying the scheme to State Railways under the Director-General of Railways, was considered in the Public Works Department. It has now been agreed, with the concurrence of the Railway Companies, as regards Companies' Railways, that the appointments below should be reserved for Military Assistant Surgeons. In reserving these appointments, both on State and Companies' Lines, it has been laid down that the rights of present incumbents are to be duly observed, that is, the appointments of present incumbents will not be interfered with, and Railway authorities will be asked to employ Reserve Officers, within the number accepted, only as vacancies occur in their sanctioned establishments It has been further decided that Railway Companies shall not be liable for pension contributions on account of Military Assistant Surgeons, but under orders. They will be required to pay their full salaries and to contribute towards their leave allowances, according to the Rule of Proportions (Article 56, Civil Service Regulations). The rate of pay drawn by the several grades of Military Assistant Surgeons is as follows —

	Rs.
Senior Assistant Surgeons, with the Honorary rank of Surgeon-Captain	400
Senior Assistant Surgeons, with the Honorary rank of Surgeon-Lieutenant	300
Assistant Surgeon, 1st class, above 5 years' service ...	200
Do. do. do below 5 do.	150
Do. do. 2nd class, above 5 do.	119
Do. do. do. below 5 do.	85
Do. do. 3rd class, below 5 do.	50

with rations, or Rs. 10 extra in lieu.

The following appointments have been reserved for Military Assistant Surgeons on Railways:—

STATE RAILWAYS	No	Pay.
North-Western	1	800
	2	300 each.
	1	150
	1	100
Eastern Bengal	1	400
	4	300 each.
	1	150
Oudh and Rohilkhund ...	1	300
East Coast	1	250
	1	125
Beswada-Madras	1	300

Assistant Surgeons wanted by Government.			
Rajputana-Malwa ...	...	4	100 each.
Bengal and North-Western ...	...	8	110
	rising to Rs.		150 each.
Indian Medical ...	...	1	150
		1	100
Southern Maharatta ...		1	80
Bengal-Nagpore ...	...	8	200 each.
		1	150

Such is the scheme. It gives 30 civil posts, some good, some indifferent, and some bad, to Military Assistant Surgeons, and for these favors we give our thanks to Government.

Yours, &c., 30 YEARS A MILITANT ASSISTANT SURGEON.

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CIVIL MEDICAL ADMINISTRATION IN THE N.-W. P. AND OUDH.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The letter which appeared in your issue of the 1st February 1898, under the heading "Civil Medical Administration in the Punjab." applies with equal, if not greater, force to the N. W. P. and Oudh, the Bengal Presidency, and the Central Provinces; as *ekkas*, the cheapest wheeled conveyances procurable on hire, are not as readily obtained in them as in the Punjab; and district tours at speed are consequently more expensive.

In the column "Comments and News" in the same issue under the heading "Sanitary Advance in India," you notice that the Government of the N.-W. P. and Oudh have marked the year 1897 by a new departure in sanitation, in re-constructing the Sanitary Board, which, when the affairs of a district are under discussion, will be aided in their deliberation by the District Magistrate, the Civil Surgeon, the District Engineer, and a delegate from the District Board.

The Lieutenant-Governor of the N.-W. P. and Oudh, can hardly be aware that the Civil Surgeons of twelve of the districts under his rule are under the recent interpretation of Article 1096, C. S. R., required to prosecute sanitary enquiries in their districts, practically at their own expense (i. e.) at a mileage of 4 annas, while in the same districts, all the other officials concerned, including the District Surveyor, or District Engineer, go over the same ground at a mileage rate of 8 annas. This is expecting too much from Civil Surgeons so situated, be they ever so keen on sanitation!

Though Civil Surgeons serving in provinces other than the Punjab are not tied down to an absence of only seventy-two hours from their jails, they are expected to perform their dispensary inspections in as short a time as possible, and are not infrequently required to explain why they halted for twenty-four hours at a dispensary. It is well understood that such enquiries emanate not from the Inspectors-General, but from their native clerks; yet an enquiry, signed by an Inspector-General, necessitates an explanatory reply, followed by avoidance of a halt, however necessary at future inspections. With such factors at work, it becomes impossible for a Civil Surgeon, drawing travelling allowance at second class rates, to satisfactorily perform the inspection duties of his office, and imperfect inspections mean imperfect work by the subordinates of the department which he supervises.

His Honor the Lieutenant-Governor of the N.-W. P. and Oudh, has apparently the interests of all under his rule at heart, and if it were possible to bring this matter to his knowledge, it is more than probable that he would look into it, and cause such action to be taken as would remove what cannot but be considered an injustice to a very useful class of public servants.

Yours &c., "INTERESTED."

(We earnestly commend these remarks to the consideration of the Inspector-General of Civil Hospitals, N.-W. P. and Oudh.—ED., I. M. R.)

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GOVERNMENT DOCTORS AND PRIVATE MEDICAL PRACTICE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—However unhappy the *present* incumbents of State medical appointments in Calcutta, Madras and Bombay may be, at the straight and hard hitting which the *Record* has for years been dealing at the unfair monopoly of *private* practice by State-paid doctors, there can be no question of a doubt that not only the public, but the Indian Medical Service at large, will gain by the projected reforms that are shortly to be made in this connection. For example, one reform which the *Record* advocated six years ago, will soon be a *fait accompli*, namely:—All hospital posts in our big metropolitan cities, which used to be life-term appointments (or rather held till retirement) are now to be made *four year* "jobs." Instead of having a single good McLEOD or a HARVEY, or a McCONNELL, this plan will give us a dozen McLEODS, HARVEYS, and McCONNELLS, turned out of our big colleges with a rich fund of hospital experience, ready to work for the public good in many parts of the country. There will be no "monopoly of talent" in big cities; it will be found everywhere. So that much good is about to result from the persistent battering at the stronghold of "I. M. S. monopolies."

Then, again, we find the head doctor of the Calcutta General Hospital prohibited from engaging any further in private practice. We find, too, that the resident medical officers of the College and General Hospitals (all I. M. S. men) have also been interdicted, and we find Surgeon-Colonel BOMFORD, M.D., the worthy Principal of the Calcutta Medical College, absolutely resigning the privilege he is permitted to enjoy, of engaging in purely consultative practice, thereby setting a praiseworthy example to every medical officer in Calcutta who draws a State salary for the responsibility of attending the sick in our public hospitals, and for fostering and advancing the all-absorbing cares of training the medical youths of India. Truly we are on the eve of great and much needed changes, but the battle for reform is not yet ended, the victory for India is not yet won. "Coming events cast their shadows before them," and so these impending changes presage an occasion for congratulation, for encouragement and for greater union and for the tenacious rallying of our forces till victory is ours, and India has gained complete redress for the wrongs that blot her medical escutcheon.

Yours &c., A. LABOURER IN THE VINEYARD.

HOCUS DIPLOMAS AND UNCONTROLLED MEDICAL EDUCATION IN INDIA.

To the Editor, "Indian Medical Record."

Sir,—One of the most gigantic evils looming in the near future, and one which, if not grappled with in double quick time and with an iron hand, is sure to do incalculable mischief, is the question of uncontrolled mushroom medical colleges, which threaten to beat all previous attempts in the art of manufacturing ill-trained practitioners armed with loud-sounding titles and diplomas. The Medical Administration of Bengal and the Director-General at the head of all things medical, will not be able to plead the excuse that clear notes of warning were *not* sounded about this terrible evil. Calcutta has been plagued with one such syndicate styling itself "The College of Physicians and Surgeons of Bengal," a more hocus-pocus concern than which could not be conceived. Yet it has been deluding half-educated Bengali youths in dozens to its unfurnished shelter, and there after a few years of "attendance" on the jabberings of some self-constituted "lecturers." (?) they will be turned out *diplomaed*. The question of permitting such tomfoolery to continue is *not* a serious one, so long as a few unemployed medical men choose to spend or waste the leisure which apparently presses so heavily on their care, in playing at anatomy, physiology, and the whole list of the allied sciences. But when it comes to having these chatterboxes assume the rôle of "Physician and Surgeon Manufacturers," then it is high time for the profession, the public and the State to demand that this dangerous *tamasha* should stop. It is marvellous to analyse the details of the qualifications of some of these "lecturers." One assumes the garb of general back-biter and scandal-monger and now caps these malefactions by Gospel preaching and Bible thumping! Surely such incongruities are evidence of a *very wide* knowledge of the art of "lecturing" !!

Yours &c., No Crimshanking.

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MILITARY ASSISTANT SURGEONS' SERVICE.

To the Editor, "Indian Medical Record."

Sir,—As the Council of the Indian Medical Association, in view of the official intimation received by it, will now probably move the Government of India for the early carrying out of reforms for the Military Assistant Surgeons' Service, I beg to state briefly the suggested reforms that will, in all probability, find acceptance with those in authority. It is best not to ask for too much in the present financial difficulties of the country. Therefore my suggestions will be as modest and as moderate as possible, having due regard to circumstances.

(1) The abolition of the lowest or third class, and a salary of Rs. 100 on passing out of college.

(2) Promotion after 5 years' service in each grade.

(3) The abolition of the term *Subordinate* as applied to the service, and the designation "Indian Medical Department" to be substituted instead of I. S. M. D.

(4) The abolition of the term Senior Assistant Surgeon to our commissioned grades, the honorary designations of Surgeon-Major, Surgeon-Captain and Surgeon-Lieutenant standing alone, without the additional S.A.S. appended to them

These changes will cost very little to the State, but they will afford satisfaction to the service and bring contentment to the minds and hearts of all the men. As a *quid pro quo*, the Government might demand a higher educational standard, by insisting on candidates being possessed of Matriculation or Entrance Certificates from our Indian Universities, and that they shall undergo *five* years' medical training instead of four at college.

Yours &c., Senior Military Assistant Surgeon.

(The Council will take action in this matter as also in the matter of the Military Hospital Assistants at a very early date, but it behoves all members of these classes to enrol themselves on the list of the Association at once.—*Ed., I. M. R.*)

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THE MILITARY LOCAL MEDICAL SERVICES LEFT OUT IN THE COLD.

To the Editor, "Indian Medical Record."

Sir,—While all Military Hospital Assistants and Military Assistant Surgeons will congratulate their civil brethren on the promised reforms which the Government has notified to the Council of the Indian Medical Association it is about to confer on their departments, they will not feel their disappointment and disheartenment the less in view of this favor shown to their Civil confréres. We shall not complain of their good luck. We only hope and pray they will receive the *substance* and not the *shadow* of reform and redress.

However, as a Military Hospital Assistant, I feel that no time should be lost by my class to place a complete statement of our grievances before the Council of the Indian Medical Association, in view to their being immediately embodied in an appeal from the Council to the Indian Government. Clearly our position is not quite understood by the Council, and they need enlightenment as to our wants. Should we write direct to the Secretary of the Indian Medical Association, or should we place our case first in the hands of Mr. Philip, the representative of the Hospital Assistant class on the Council? That something should be done at once is very clear. What should be done is another matter, can you inform us of the best course to adopt, Mr. Editor?

Yours &c., Military Hospital Assistant.

(It would be as well at this juncture if a special appeal on behalf of the Military Hospital Assistant class were made to Government by the Council of the Indian Medical Association, and we feel sure the Council would be glad to receive the fullest possible information on all points regarding the grievances and hardships of this class, either through Mr. Philip or direct through the Secretary. Let every Military Hospital Assistant immediately join the Indian Medical Association and thus give greater effect to the prayer of the Council to the Government.—Ed. *I. M. R.*)

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HIGHLY PLACED ANGLO-INDIANS.

To the Editor, "Indian Medical Record."

Sir,—Here are a few more names for your Anglo-Indian List:—

The Hon'ble Mr. J. G. Coleman, partner in the great firm of Spencer & Co., Madras, was Member of the Governor's Council there.

Surgeon-Major J. H. Sylvester, Professor of Ophthalmic Medicine and Surgery and Comparative Anatomy, Grant Medical College, Bombay.

Mr. Waite, Chief Accountant, Bombay Municipality.

Dr. T. J. Waite, L.M.S. his brother, occupies a prominent official position in Calcutta as Judicial Secretary to the Lord Chief Justice.

Mr. Stevens, Postmaster-General of Madras, who recently retired to Bangalore.

Mr. Apley, one of the principal and wealthiest Tea Planters in Assam.

Mr. Briscoe, another wealthy Anglo-Indian Tea Planter in Assam.

Mr. Sweeny, Superintendent of Police, Bombay.

The great Mr. Charles Forgett, who was Commissioner of Police, Bombay, rose from the lowest ranks of his department, distinguished himself during the Mutiny, and retired on a special pension for exceptionally good services.

Dr. F. A. Foy, M.B., C.M., Aberdeen, Bombay.

Dr. Marrett, M.B., C.M., Aberdeen, Bombay.

Captain Estes, Punjab Frontier Force.

Surgeon-Captain Myles, I.M.S.

Payne Bros. (both Anglo-Indians) leading jute brokers of Bengal.

Yours &c., RECORDER.

CHEMICAL EXAMINERS TO GOVERNMENT.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—A Resolution appears in the *Gazette of India* raising the pay, and revising the method of recruitment for Chemical Examiners to Government. It takes effect from 21st December last, and applies to the Chemical Examiners of all local Governments, except the North-West Provinces and Oudh. The pay, which now ranges from Rs. 700 to Rs. 1,250 monthly, is to begin at Rs. 800 and rise by annual increments of fifty rupees to Rs. 1,400, in addition to presidency allowance. The service is to be recruited by volunteers from the junior ranks of the Indian Medical Service who will pass through a period of preliminary training, lasting about twelve months, in the laboratory of the Chemical Examiner in Calcutta, and during this period receive pay ranging from Rs. 500 to Rs. 650 monthly, according to their standing. The change has been necessitated by the great increase in work and responsibility put upon Chemical Examiners by the operation of the Merchandise Marks and Petroleum Acts, which have added to their almost exclusively medico-legal duties, the conducting of far more recondite investigations requiring a high degree of technical skill.

It will be observed from the terms of the above Resolution that only Indian Medical Service officers are to be affected by these benvolent intentions of the Supreme Government of India. *Qualified outsiders* are left out in the cold. This is another instance of the withering influence of State policy in India on local talent Let Britons thrive, but India and her people must be strangled and outcasted for ever.

Yours &c., AN INDIAN CHEMICAL EXPERT.

THE W. M. O. PROVIDENT FUND.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Just received the Bank pass book. The account at credit of the W. M. O. P. Fund is Rs. 4,877-9-11, including interest to 31-12-97, and interest of 2 Government promissory notes for Rs. 2,000. The notes are in the safe custody of the Bank, which gives a total of Rs. 6,877-9-11 Two claims on the Fund are to be paid.

The last amount paid into the Bank was on 5th February 1898.

Yours &c., W. H. H. WADE,
Surgeon-Captain, S. A. S.

JUBBULPORE, *10th February 1898.*

(This seems satisfactory enough. It will remain for Surgeon-Captain Wade to kindly submit a detailed statement of payments to the W. M. O. Provident Fund by each individual subscriber, and a further detailed statement of expenditure, so as to explain what remains in the Bank and in hand. This being done, it is a simple matter to satisfactorily reconcile the W. M. O. Fund with the I. M. A. Provident Fund and to report for each subscriber of the former Fund his due credit. We would beg of Dr. Wade to be good enough to expedite the submission of these much-needed statements.—ED., *I. M. R.*)

Government Medical Gazette.

GOVERNMENT OF INDIA.

Surgn.-Col R. C. Raine, A. M. S., is brought on the Administrative Med. Staff of the Army, 17th Jany. 1898.

Hosp. Asst. Thakur Dass, 39th Bengal Infy. is in recognition of the good service rendered by him during the recent operations of the Malakand Field Force, specially promoted to be a Senior Hosp. Asst.

Brig. Surgn.-Lieut.-Cols. to be Surgn.-Cols.:—

Bengal.—Benjamin Franklin, C.I.E., 24th Oct. 1897; George McBride Davis, M.D., D.S.O., 24th Oct. 1897.

Bombay.—George William Robertson Hay, M.D., 16th Augt. 1897; Randolph Caldecott, 18th Sept. 1897.

Surgn. Lieut. Cols. to be Brig.-Surgn Lieut.-Cols. :—

Bengal.—Adam Scott Reid, 5th June 1897.

Bombay.—James Sutherland Wilkins, D.S.O., 16th Augt. 1897; William Alexander Turner, 18th Sept. 1897.

Senior Asst. Surgns. with hony. rank of Surgn. Lieut. to be Senior Asst. Surgns. with hony. rank of Surgn. Capt. :—

Bombay.—Sebastian Rebeiro, 12th Feb. 1897; Charles Boden, 1st May 1897; William Church, 22nd June 1897.

First class Asst. Surgns. to be Senior Asst. Surgns. with hony. rank of Surgn. Lieut :—

Madras.—Daniel Thomas Pakey, 31st Aug. 1897.

Bombay :—Augustus Xavier Dias, 12th Feb. 1897; Vincent Xavier Lobo, 1st May 1897; Gregory Deodata Lobo, 22nd June 1897.

BENGAL GOVERNMENT.

Asst. Surgn. Jogendra Nath Basu is apptd. to the tempy. med. charge of the sub-div. and dispy. at Cox's Bazar, Chittagong dist, from 10th Jany. 1898.

Asst. Surgn. Khirode Chandra Chowdry, a supery. at the Presy. Genl. Hosp., did supy. duty at the Med. Coll. Hosp., Calcutta, from 5th to 23rd Nov. 1897.

PUNJAB GOVERNMENT.

Surgn.-Capt. R. Heard, Offg. Civil Surgn. in med. charge pilgrim camp, Lodhran, assumed executive charge of that camp in addition to his med. duties, 6th Jany. 1898.

Surgn.-Capt. S. A. Harries assumed charge civil med. duties of the Mardan sub-div., 13th Jany. 1898.

Dr. D. N. P. Datta, Civil Surgn. of Hoshiarpur, was placed on special duty, Hoshiarpur dist., from 13th Nov. 1897, and Asst. Surgn. Atar Chand, Hoshiarpur Dispy., to officiate as Civil Surgn., Hoshiarpur.

Surgn.-Major G. F. Nicholson was placed on special duty, in the Jullundur dist., from 29th Oct. 1897.

Asst. Surgn. Bhagwan Das, Rai Sahib, continues to hold civil med. charge Jullundur dist.

Surgn.-Capt. D M. Davidson was placed on special duty Jullundur dist., from 23rd Nov. 1897.

Asst. Surgn. Elahi Baksh was placed on plague duty, Jullundur Cantonment, 17th Jany. 1898.

Hosp. Asst. Amir-ud-din, doing genl. duty at Jullundur, was placed on duty at the Lodhran Pilgrim Camp from the 15th Jany. 1898.

BOMBAY GOVERNMENT.

Brig.-Surgn.-Lieut.-Col. F. C. Barker, M.D., F.R.C.S.I., has been apptd. to act tempy. as Supdt., Lunatic Asylum, Colaba, from 5th Jany. 1898.

Surgn.-Lieut.-Col. K. R. Kirtikar to act as Civil Surgn., Satara, from 5th Jany. 1898.

Surgn.-Major J. P. Barry, M.B., to act tempy. as Presy. Surgn., Third dist., from 5th Jany. 1898.

Asst. Surgn. P. A. Cordeiro, L.M. & S., has been placed on genl. duty from 2nd Jany. 1898.

Surgn.-Capt. A. J. Heath, M.B., is allowed furlough for nine months.

Surgn.-Capt. J. B. Smith, M.B., M.Ch., B.A., to act as Asst. Surgn. to the David Sassoon Hosp. and Asst. to the Civil Surgn., Poona.

Surgn.-Capt. S. E. Prall, M.B., acting Prof. of Pathology and Morbid Anatomy and Curator of the Pathological Museum, Grant Med. College, to act as Prof. of Physiology, Histology and Hygiene, from 17th Nov. 1897.

The services of Surgn.-Major A. H. J. Croly, F.R.C.S.I., A.M.S., are replaced at the disposal of the Govt. of India, Home Dept., from 9th Jany. 1898.

Surgn.-Lieut. J. C. Robertson, M.B., C.M., I.M.S., has been placed on plague duty at Satara from 17th Jany. 1898.

CENTRAL PROVINCES GOVERNMENT.

Asst. Surgn. Madhu Sudan Moitra to the civil medical charge Wardha dist., from 13th Oct. 1897.

Asst. Surgn. Boidyanath Byack to do plague duty at Khandwa from 9th ultimo.

Asst. Surgn. Nand Lal Pramanic was placed on famine duty, Sangor, from 15th Sept. 1897.

Asst. Surgn. Pramatha Nath Mookerji was placed on famine duty, Raipur, from 11th Sept. 1897.

Asst. Surgn. Hemchandra Biswas, doing duty under Civil Surgn., Nagpur, is deputed on Plague duty at Itarsi Hoshangabad dist., from 6th Nov. last.

Asst. Surgn Ganda Mal, on plague duty at Jubbulpore, to do plague duty at Burhanpur, Nimar dist., from 21st Dec. 1897.

Hosp Asst. Sobharam, on plague duty Gadarwara Ry. Stn., Narsinghpur dist., is deputed on special duty at the Barmhan Fair.

Hosp. Asst. Bihari Lal is temply. apptd. to the Central Jail Hosp, Jubbulpore.

Hosp. Asst. Lachhman Pershad, Lehara Poor-house, Saugor, from 12th Sept. to 2nd Oct. 1897.

N.-W. P. AND OUDH GOVERNMENT.

Asst. Surgn. Mohini Mohan Chatterjee, from Sadar Dispy., Ballia, to plague duty at Hardwar, Saharanpur dist.

Asst. Surgn Gopal Chundra Gupta, Khurja Dispy., Bulandshahr, to plague duty at Hardwar, Saharanpur dist.

Hosp Asst Kalka Pershad, from Zamania Branch Dispy., Ghazipur, to Sadar Dispy, Ballia.

Hosp Asst. Nanak Chand, from Chandausi Dispy., Moradabad, to Khurja Dispy., Bulandshahr.

Asst Surgn. Ghulam Mustafa, Sadar Dispy., Mainpuri to Aligarh on plague duty.

Asst. Surgn Charu Charan Ghose, from plague duty, Aligarh, to Hardwar, Saharanpur dist.

Hosp Asst. Baldeo Pershad, Shekohabad Branch Dispy., to Sadar Dispy, Mainpuri.

Asst Surgn. Chanan Singh, on Reserve duty at Saharanpur, to plague duty at that station.

BURMA GOVERNMENT.

Hosp. Asst. Kedu Ram assumed charge Police Hosp, Shwebo, 25th Dec. 1897.

Hosp Asst. Anant Singh assumed charge Civil Hosp., Letpadan, Tharrawaddy dist, 4th Jany. 1898.

Hosp. Asst. J. Masilamoney, to Zigon, Tharrawaddy dist., to give evidence before the Subdiv. Magistrate, 6th Jany. 1898.

Hosp. Asst. J. Masilamoney assumed charge Jail Hosp., Toungoo, 14th Jany. 1898.

Hosp Asst Maung Tun U assumed charge Police Hosp. Pinka, Mogaung sub div., 13th Dec. 1897.

ASSAM GOVERNMENT.

Hosp. Asst. Syed Gyas Uddin, a supy. in the Sylhet dist., to the Goalpara dist. a supy, for duty under Civil Surgn. from 19th Jany. 1898.

Hosp. Asst. Srinath Das is aptd. a supy for duty under Civil Surgn, Khasi and Jaintia Hill dist., from 20th Jany, 1898.

Hosp. Asst. Durga Gati De, Puranigudam Dispy. Nowgong dist, to Sibsagar dist., Kokilamukh coolie depot from 14th Jany. 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTHS.

WILLIAMS.—On 5th Jany., at Tayside, Broughty Ferry, N. B., the wife of Surgn.-Capt. C. E. Williams, I. M. S., of a daughter.

WATSON.—On 11th Jany., at Hendre, Overton-park, Cheltenham, the wife of Deputy Surgn.-Genl. George Alder Watson, Bengal Army (retired), of a son.

YOUNG.—On the 28th Jany. 1898, at Bareilly, N.-W. P., the wife of Surgn.-Capt. W. Young, M.B., Indian Medical Service, of a daughter.

WHITELAW.—On the 7th Feby. at 1, Larkin's Lane, Calcutta, the wife of Dr. R. Whitelaw, of a son.

MARRIAGE.

BUCHANAN—HUSBAND.—On the 26th July, 1897, at Ajmere, by the Rev. William Robb, M.A., and Rev. James Gray, John Buchanan, Allahabad Bank, Bareilly, youngest son of Rev. James Buchanan, Foreign Mission Secretary. United Presbyterian Church, Scotland, to Eliza Jane, elder daughter of Rev. John Husband, F.R.G.S., C.I.E., Ajmere.

NOTICES TO CORRESPONDENTS.

R. J. O. (Bina).—Refer the matter of your lost certificate to the P. O. authorities. Should you fail to get it, address the Secretary officially, and on payment of two rupees a duplicate certificate will be prepared for you.

Senior.—Some of your suggestions are too retrograde and would do infinite harm to the service, so we could not dare to give publicity to them.

R. S. P.—Your case is well reported, but it is a very simple one of gastro-intestinal symptoms resembling catarrhal irritation, due to the presence of worms. As such, it is a very common ailment. We shall be glad to have you report a *series* of such cases with the most effectual therapeutic treatment.

A. S. (Lahore).—Your interesting report will appear in our next number.

A. N. E. P. (Rangoon).—We commend your ambitious aspiration and wish you success. You will find all the latest information you need in the new edition of the *Medical Register and Directory of the Indian Empire* which will be published shortly.

Dr. H. A. Macleod, M. B. (Saharanpore) writes:—"Can you give me therapeutics of "phuloca," as obtained from *paharia*." Will some one skilled in the therapy of Indian drugs kindly answer Dr Macleod in the *Record*?

N. H. (Chandpur).—We consider the female hospital assistant who attended your wife, more than fully entitled to the charges she has made for medical attendance and travelling allowance. You would do a graceful and just act to meet her account without demur.

Subscribers (Allahabad) writes:—"Can you or any of your readers inform me whether there are any uncovenanted medical appointments in the N.-W. P. and Oudh, and if there are, in what stations, and what is the scale of pay?"

L. F. (Madras).—The so-called College of Physicians and Surgeons in Calcutta, is a bogus Bengali scheme and not worthy of mention. Our answers referred to R. C. S. and R. C. P. of Great Britain, about which, full information can be gained from the *Medical Register and Directory of the Indian Empire*.

J. M. P. and *T. R. N* (Madras).—Make out a clear statement of the grievances of your class and submit them to the Secretary, I. M. A, without delay.

J. L. B. (Bombay).—It is difficult to do as you ask just now.

N. B. (Sirdarpur).—Dr. J. Duke's promotion to a Surgeon-Colonelcy ought to be gazetted almost immediately

Malwar Bhil Corps.—Hospital Assistants who can fulfil the educational and professional requirements of the British Corporations are as elegible for their diplomas as anyone else.

A. M. D.—We have already referred to the Maidstone Epidemic Medal.

D. L.—Your case is a hard one, and ought to be reconsidered by the Government.

Straits Settlements.—The question papers set by Dr. H. J. Gibbs are very good indeed.

V. V. C. (Multan).—Many thanks for your excellent suggestions.

E. J. A. (Dum-dum).—We appreciate your kindness in sending us the examination papers.

F. C. R. (Mean Meer).—We hope you will reconsider your letter; and write us again.

S. B. (Akola).—Read Dr. Giles' critique in the *Record*.

S. D. (Simla).—We greatly sympathise with you, your case will be placed before the Association in due course.

W. W.—Next number.

[illegible]

[illegible] the etiology of malarial fevers without being misled by the [illegible] influence of [illegible] due designed to organic matter.

Perhaps I am wrong in saying "at one time," for evidence occasionally appears to show that in the minds of some, organic matter and malaria are still inseparably connected.

This theory that organic matter was the cause, or helped to produce the cause, of malarial fevers has received more wounds, and more mortal ones, than ever JULIUS CÆSAR did, yet it still lingers on, an illustration of the amazing vitality of popular beliefs. Truly, to slightly alter the quotation, "Custom doth make cowards of us all." We are loath to turn against and reject what has been handed down as gospel truth from generation to generation.

Yet, seriously, is there anything in this idea that is worthy of our consent?

In this, as in many other aspects of the malaria question, we encounter little but vacillation and vagueness of ideas, differences of opinion and shifting of position, one hypothesis abandoned after another, the absence of all accuracy of statement or clear reasoning, and of anything that can be called proof.

Animal Organic Matter.

In former days decomposing animal matter was supposed to be a particularly virulent cause of malarial fevers, and a case will be found in the *London Medical Gazette*, Vol XXVIII, p. 790, when a severe epidemic of malarial fever followed an inundation of the sea at Lynn Regis in 1779, and where decaying fish were said to have been the cause.

In 1762 JAMES LIND, who wrote on "The Putrid and Remittent marsh fever of Bengal" (not to be confounded by the way with his relative JAMES LIND of Haslar, author of the "Essay on Diseases Incidental to Europeans in Hot Climates), disputed this idea which was at that time generally believed, and brought forward many convincing arguments to prove that decaying animal matter had nothing whatever to do with the causation of malarial fevers.

This opinion has, of course, long been abandoned, and vegetable organic matter alone accused.

As early as 1820, WILLIAM FERGUSON[1] or FERGUSSON (for his name occurs with both spellings) who contributed some very able articles on the subject, the result of large experience in malarious countries, strove in vain to dissipate this idea. "Putrefaction," he says, "and the matter of disease are altogether distinct and independent elements."

He was able, moreover, to bring forward some very apposite illustrations in support of his contention.

"The town of Point au Pitre, Guadeloupe," he tells us, "is situated around some of the most putrid marshes in the world, the stench is never absent from the streets, [illegible] frequently [illegible] Fort Louis, where the stagnant and putrid [illegible] are more offensive; nay at Fort Fleur d'Epée [illegible] at the extremity of the mouth, where [illegible] examine there the appearance of tarry [illegible] in little water on the surface, no smell, yet it is very deadly from malarial fevers."

"In the malarious island of Tobago" he also tells us, "the chief fort and barracks were situated half a mile to leeward of the Bacolette swamps, from which a strong ammoniacal stench frequently pervaded the barracks. Yet the troops here are freer from malarial fevers than any other in the West Indies."

Needless to say, FERGUSON was listened to with a sort of good-natured contempt, he was reckoned to be having a hobby and riding it too hard; his ideas were not refuted; they were not considered worthy of so much attention; they were simply ignored

In 1856, in the *Indian Annals of Medicine*, we see MCKINNON expressing the same opinions, in his experiences of the Indigo factories of Bengal, observation forced the fact upon his attention. "The amount of decomposing matter," he says, "in all stages of decay, now swamped with rain, now exposed to a blazing sun, is immense; yet after much inquiry I have never discovered that fever has been the consequence."

LIVINGSTONE[2] remarked the same thing on the Zambesi, that the air laden with the most offensive smell from decomposing marshes was innocuous.

The idea, however, was too firmly rooted to be shaken by such testimony or by any testimony, no matter how convincing it might appear

The history of malaria presents us with many ideas which seem to have been, and I may even say to be, received with a sort of superstitious veneration. Men believe by faith; those who have faith will not reason, and those who reason cannot believe.

In 1883, the prevailing opinion is thus expressed by HIRSCH.[3] "Observers at the most diverse points of the globe are nearly unanimous in saying that the development of the malarial poison depends directly or indirectly upon the process of decomposition of organic and particularly of vegetable matter, in or upon the soil, and that it is in a measure bound up with those processes."

The Malarial Factors.

It was a favorite exercise at one time to formulate the factors that were necessary for the production of malaria. Some were satisfied with three: heat, moisture, and decomposing vegetable matter.

These were the factors of the older writers; then came TOMMASI-CRUDELI also with three factors, but with a notable variation, he omitted organic matter; his three factors were (1) very high temperature, not below 20°C; (2) persistent humidity; (3) access of air to the moist strata.

In the 1891 edition of PARKES's "Practical Hygiene" four factors appear: (1) Heat of soil (which must reach a certain point, equal to isotherm 65° F. of summer air temperature); it has always puzzled me to understand why

1. Transac. Medical Soc., 1820. Edin. Journal, Vols IV and VI.

2. Travels in Southern Africa.

3. Historical and Geographical Pathology.

it must be a moderate air temperature" but to continue, (2) air, (3) moisture, (4) some impurity of soil which should probably be of vegetable nature.[1]

In this way these poor factors have been shuffled, and dished up over and over again in different ways, without making any one any the wiser or adding an iota to our knowledge of the subject.

The omission of organic matter by TOMMASI-CRUDELI as an essential in the production of malaria was a very curious one. It will be remembered that between the years 1879 and 1886 the subject of malaria occupied a very prominent place in the attention of the medical and scientific world, owing to the announcement of the KLEBS and TOMMASI-CRUDELI bacillus, and the enterprise and energy of the latter in pushing its claims.

This period is a remarkable one in the history of malarial literature; the name of TOMMASI-CRUDELI dominated everywhere. He published a large number of writings containing statements opposed to the commonest physical laws of nature. Yet no one contradicted him and his bacillus was received everywhere with open arms.

In the 1883 edition of PARKES four years after the discovery, we find the following statement under paroxysmal fevers.

"*External cause.*"—"This was presumed to be putrescent, or at any rate decomposing vegetable matter, derived from a moist and putrescent soil, which was carried into the body by the medium of water or of air. But the later views of KLEBS and TOMMASI-CRUDELI attribute it to a low organism of the nature of bacillus, to which they have given the name Bacillus Malariæ."

The readiness with which this bacillus was received proves conclusively the unsatisfactory nature of the views held up to that time, had they possessed any substantiality, or had they rested upon any satisfactory foundation, men would not have parted with them so easily.

So vague and shadowy were all those theories of miasms, of subtle, imponderable fluids, etc, that they vanished before the attack of an imaginary bacillus.

TOMMASI-CRUDELI may be said to have reached his climax at the International Medical Congress, held at Copenhagen in 1884. Soon after that he and his theories "fell like Lucifer never to rise again;" "then followed a blank, men were ashamed of themselves for their ready credence, and the whole subject was neglected for several years.

On the supposition that malarial fevers are caused by decaying vegetable matter, the conclusion is easily arrived at that where there was most decaying vegetable matter, there should be most fever and vice versa, and DRAKE[1] has actually laid down this rule for us. He says:—

"It is a safe generalisation to affirm, that all other circumstances being equal, autumnal fevers prevail most where organic matter is greatest, and least where it is least.

To show how *unequal* the other circumstances must have been, it is only necessary to quote the observations made by STANLEY on the Congo and a few other examples. I may be wrong, but I have always looked upon STANLEY's Congo experiences as of particular interest and value. They give us data which we do not easily find elsewhere. They present us with a vivid picture of a great river rolling through one of the most malarious parts of the world with stations dotted here and there along its course, occupied by Europeans.

They are the records of a shrewd and observant traveller, but they are more than this; they are the notes taken by men of the habits of their deadliest enemy; for fever meant to him and his companions life or death, and success or failure to a great enterprise.

STANLEY[1] went to the Congo imbued with all the teachings of the miasmatic doctrine, with a wholesome dread of marshes, organic matter and deadly exhalations from the soil. He, accordingly, whenever it was possible, selected sites for his stations as far removed from such conditions as he could. The result may be told in his own words.

"At Banana Point," he says, "and at Boma, in the midst of marshy exhalations, situate almost at the water's edge, the Europeans have enjoyed better health that at Vivi." Vivi, he describes as built on a dry rocky plateau about 340 feet above the river. "And remarkable for the absence of anything likely to vitiate the air from putrefying vegetation."

"At Kinshassa, just 10 feet above high water, better health has been enjoyed, indeed almost complete immunity from sickness, than at Leopoldville, five miles below situate 83 feet above the river level."

"At Equator Station, with the river only five feet below its foundations, creeks sable as ink surrounding it, the ground unctuous with black fat alluvium, Europeans enjoy better health than at Manyanga, 240 feet above the river and 1,100 above the sea."

The Congo is not exceptional in this respect; for Bates[2] tells us that swampy and weedy places are more healthy than dry one on the Amazons."

To any one even moderately acquainted with the literature of malaria, plenty of cases must occur where malaria has prevailed in its worst forms in the almost total absence of organic matter of any kind. Instances have been recorded from Holland, Spain,[3] Portugal.[3] The Ionian Isles (Vido), Sicily, Algiers, on the shores of the Persian Gulf described by EVATT,[4] as "without rain, without rivers, without vegetation. HEYNE[5] described malarial fevers as occurring on bare rocky hills in Southern India, In Scind, KIRK attributed them to the influence of magnesian limestone in the absence of organic matter.

Hong-Kong was at one time notorious for such fevers, though its soil contained only 2 per cent. of organic matter; and the soil of Mean Meer, another very malarious place contains but 4·13 per cent.

Writing in 1888, HILTON FAGGE[6] says:—"These exceptional cases are fatal to a hypothesis which at one time was generally upheld, namely, that the poison of ague is nothing more than a product of putrefying vegetable matter."

It must strike one as a very extraordinary thing that

1. Top. and Dis. of Mississippi Valley, p. 709.

1. The Congo.
2. Naturalist on the Amazons.
3. Ferguson, op cit.
4. A. M. D. Report 1874 p. 123.
5. Madras Quarterly Journal, Vol. III, 1861.
6. Principles and Practice of Medicine.

a conclusion which appears so obvious and irresistible, had not forced itself upon the minds of all writers long before, but such was not the case, and even to the present day, judging from the rareness with which it is expressed, the opinion has not met with general acceptance.

In 1885, Surgeon-Major FIRTH[1] in a very able and interesting paper in which he describes a lengthened series of careful observations he made "with the intention of determining what relation the physical causes at work in Mean Meer bear to the prevalence of malarial fevers there," concludes with the remark that malaria is a product of continuous heat and moisture upon vegetable organic matter.

And the 1891 edition of PARKES, as we have seen, still gives its support to this view.

It was evident, however, even to its strongest supporters, that the idea had been severely shaken, and that it would have to be modified to bring it into harmony with observed facts, and to meet the serious objections alleged against it.

Surgeon-Major FIRTH, in the above-mentioned paper, gives us an inkling of what the modification is to be. "Malarious soils," he says, "may be practically divided into two main kinds The very dry and barren soils, usually sandy, and the very damp with luxuriant vegetation, partaking more or less of the nature of a swamp. Organic matter is common to them both, and in each case is found to be considerably in excess of the requirements of the vegetation found on the soil."

This, however, is not a classification or division of malarious soils practical or otherwise, it is simply a description of the extremes of a series, and an admission that malaria can prevail under such divergent conditions

The chief point of interest about the above quotation is the idea that organic matter is only dangerous when it exists in the soil, *in excess of the requirements of the plant life of the place*. This is very ingenious ; for it is an endeavour to explain why the small amount of organic matter found in the soil of Hong Kong and Mean Meer, and other dry barren places, is as poisonous as the much-larger proportion found in places where a rich and luxuriant vegetation exists

M. COLIN[2] however, is the originator of this idea, he ascribes malaria to "puissance végètative du sol." "In my view," he says, "the fever is caused chiefly by the vegetative power of the soil whenever that power is not called into action, when it is not exhausted by plants sufficiently abundant to use it up."

He also admits that any soil can produce malaria if it is exposed to sufficient heat

This hypothesis, which beyond its ingenuity has little to recommend it, appeared to open a way out of a difficult situation, and has been eagerly seized upon by some ; but instead of proving a road to safety, it, by narrowing the issue, has turned into a mere *cul de sac*.

SMART[3] in the "Medical History of the War of the Rebellion" tried to establish it on a satisfactory basis. "The poison of the disease," he tells us, "is elaborated during the reduction of nitrogenous organic matter into the inorganic form in which it is available for absorption by growing plants, and evolved from the surface as malaria, while the living vegetation fails to absorb all the elements of the prepared nutritive material."

SMART's intention is to state that, the evolution of malaria depends upon the amount of vegetation present ; if the vegetation is sufficient to use up all the organic matter, there will be no malaria ; but if the organic matter is in excess of what the plants can make use of, malaria will result.

Yet in the very sentence in which he tries to lay this down, he really makes the opposite statement, *viz.*, that plant life can have no effect whatever on the elaboration of the malarial poison.

For he tells us that the plants cannot absorb the nutritive material until it has reached the inorganic state, while the poison is formed before this state is reached, while the transformation from organic to inorganic is going on. The poison of malaria is, in fact, elaborated at a time anterior to that at which the plant begins to act upon the organic matter.

He continues—if it is worth while to listen to any more of his statements—"Free exposure to the effluvium from decomposing vegetable masses does not develop malarial affections, it is only when this vegetable matter has been mixed with soil and is undergoing the fermentative processes which result in the nitrification of organic ammonia that the presence of malaria is manifested."

"Malaria may therefore be considered due to a want of relation (what relation ?) between the nutritive elements of the soil and its living vegetation."

From all this it follows that decomposing organic matter is only dangerous when mixed with soil ; it is not the fermentative process that is dangerous for, of course this takes place in any case, a practical question is, if decomposing vegetable masses are ever free from a certain amount of admixture with soil ? It is difficult to see how they can be. Smart however, seems to think otherwise and under such conditions he tells us they are harmless It is the soil then that is the dangerous element, when it is mixed with decomposing vegetable matter and nitrification is going on.

Now it is a very curious thing that this very process of nitrification, which SMART considers so baneful, is regarded by KELSCH and KINNER[1] as playing a very important and beneficient rôle in the "assainissement" or making healthy of malarious places : "the soil is made healthy," they tell us, "by drainage, which not only withdraws the water from the soil, but admits the air necessary for the nitrification of organic matter."

It is hardly necessary to add that this process of nitrification is of the greatest importance in the chemistry of Nature, and that by it organic matter is reduced to the fittest state for absorption by plant life ; it is presumably in the most highly cultivated land that this process attains its maximum, and to this end the efforts of the agriculturist are directed when he manures the soil ; highly cultivated lands should, according to SMART, be the most malarious, and occupation of the agricultural labourer one of great danger. As everyone knows, such is the reverse of being the case.

In spite of all this MACLEAN in *Quain's Dictionary of Medicine*, 1894, gives some support to this idea.

1. A. M. D Report, 1885.
2. Traité des Fièvres Intermit, 1861.
3 Part III. Med. Vol. p. 187, 1883.

1 Maladies des Pays Chauds.

[illegible] estimate of the [illegible] present time, I turn to the [illegible] published in [illegible]. I quote from this [illegible] it is generally accepted as the best exposition of the subject that has been published at all recently. I know of nothing published since, that at all approaches it in thoroughness or completeness, and since 1889 I do not think there has been much alteration in the general views on the subject.

On page 780 of their Traité des Maladies des Pays Chauds in explaining the well-known phenomenon of malarial fevers appearing after inundations from rivers they say. "The effluvia given off from organic matters left on the slopes of the ditches and hillocks, when they were uncovered by the retiring water, gave rise to an epidemic of intermittent fever."

On page 849 they say:—"The fever-causing agent is not formed by any product arising from the decomposition of the organic matters of the soil." Again, on the same page, "malaria does not necessarily arise from foci of decomposition, from which we may conclude that it is produced not by any direct product of vegetable decomposition but by a specific cause which finds amidst such surrounding, the most suitable conditions for its development.'

On page 850 they say, talking of the conditions of the soil that are favorable to malaria :—"The conditions of the soil consist in its richness in organic vegetable matter, combined with permanent humidity," "the porosity, the richness in organic matter and the hygrometric condition are the important points The most varied soils can give rise to the fever if they have on the surface, or in fissures deposits of humus periodically moistened "

And lastly, on page 878 —"The most extensive sources of malarial exhalations on the surface of the globe are, as we have seen above, uncultivated lands rich in vegetable organic matter."

Now here is a theory which has been talked about, written about, argued about, alternately denounced and upheld for centuries, and after all this discussion, this is the wretched unconvincing contradictory state in which we find it at the hands of its ablest exponents.

They wish both to have their cake and eat it, in one place to bring forward organic matter as the cause and in another under a flimsy disguise to deny it.

Such a pronounced state of uncertainty and vacillation condemns the whole organic matter theory far more than any arguments of mine.

CONSERVATIVE SURGERY OF THE SPLEEN : A BLOODLESS METHOD OF PARTIAL EXCISION PERFORMED ON TWENTY-TWO DOGS WITH TWENTY-ONE RECOVERIES.*

By H Martyn Jordan, F.R.C.S Eng.
Late Teacher of Operative Surgery H. H. the Nizam's Medical School, Hyderabad

Whilst in India, my attention was attracted by the great number of people suffering from enlargement of the spleen and by the frequency with which cases of death from rupture of this organ were reported in the newspapers. The violence needed to rupture the spleen was often very [illegible] blow with a [illegible] with the hand, a slight kick [illegible] naked [illegible] by the end of the shaft of a carriage going at a walking pace, &c., being sufficient in many cases. Palpation revealed a greatly varied condition of the organ. It was often tender and soft, in other cases painless, hard, and resistent. In size it varied considerably, and in speaking of the native of India one might almost say that it was normal for the spleen to extend from the eighth to the twelfth ribs, it being the exception to find the splenic dulness confined to our European limit, and in practice unless the edge could be felt below the margin of the ribs, the patient was regarded as having a normal spleen. In some cases the organ extended across the abdomen and the edge could be felt in the right iliac region—as in one of my servants, a dog boy, aged nine years—and it was not uncommon in these cases to see young boys and girls, and occasionally adults, walking about with the shoulders and head thrown back and the abdomen as prominent as in a six months' pregnancy. Between this extreme and the other, in which the edge came just below the margins of the ribs, there was every gradation in size. The enlargement of the spleen interfered greatly with the person's occupation, the sufferers being markedly lethargic and indolent, anæmic, short-breathed, and often cyanosed, with but small power of endurance, and from the careful way in which they performed their work and walked through crowded streets, instinctively shrinking from any possibility of a contusion to the abdomen, it was obvious that they were always conscious of this enlargement.

In the majority of cases, and especially in the soft tender enlargements, the size of the spleen can be reduced very greatly and often brought back to nearly its original size by medicinal means—*e.g.*, the administration of a mixture of the sulphates of quinine, soda, and magnesium in full doses, but some of the hard, painless, chronic forms resist all medical treatment, and it is in these that surgery can be advantageously resorted to. These chronic hypertrophies are the cases where the total extirpation of the organ has been attended with most success, and this is the operation which has been and still is advocated in these cases. But before an organ be excised a fairly extensive knowledge of its functions should exist, or at least a knowledge of means by which the normal function may be artificially replaced, otherwise unfortunate results may accrue similar to those which obtained after the removal of the whole thyroid, results which were only checked by the observations and researches of Schiff, Reverdin, Kocher, Victor Horsley, and others as to the effect of the total extirpation of the organ and for the relief of which we owe so much to the brilliant discovery of Dr. George Murray. I venture here to express the opinion that in the reported cases of successful splenectomies sufficient time had not elapsed between the operation and the report to justify an assumption that no ill-effects would accrue, and in connection with this I would point out the singularly few cases in which the blood has been examined before and after operation.

The functions of the spleen are unfortunately but imperfectly known. It is stated that the whole organ can be excised without affecting the [illegible] beyond a subsequent increase in size of the [illegible]

*Reproduced from the *Lancet* by request.

this statement I am inclined to doubt. In a litter of five healthy pups one month old the whole spleen was excised in one, the half spleen in three, and the other was kept unoperated upon for comparison (at the time I had no hæmocytometer, &c., for blood examination); one of the partial excisions died from shock, the other two made excellent recoveries and speedily grew big and fat, growing, as it happened somewhat faster than the untouched brother. The pup whose whole spleen had been removed remained fairly well for a short time, then gradually became emaciated and died from marasmus three weeks after operation, at which time its framework was distinctly smaller than that of the other three. In other cases where I excised the whole spleen (which, unfortunately, were operated upon only a short time before my departure from India and so did not permit of a sufficiently long supervision) the dogs suffered considerably from shock and were markedly quiet and apparently distressed for days afterwards and ate but little, conduct which was quite unlike that of the dogs upon whom other operations had been performed. Again, the following reports of splenectomies show that the condition of the blood is materially interfered with. VULPIUS [1] states that in eleven observations after splenectomy there was a more or less rapid and pronounced increase in the number of leucocytes. In MALIN'S [2] case (extirpation for axial rotation on 2nd, January 1894) the examinations on the second and fifteenth days after operation showed the blood to be normal and the patient left the hospital on 25th January "in good general health." On April 28th, there were 4,840,000 red and 30,000 white corpuscles per c.mm. (1 white to 161 red); 50 per cent. hæmoglobin, and a fairly considerable number of large white nucleated corpuscles varying in diameter from 20μ to 50μ and in which were contained several red corpuscles —in some twenty or more—the red cells apparently undergoing disintegration. On 23rd May (nearly five months after operation) the red cells had decreased to 3,300,000, and the white increased to 50,000 (1 to 66), this being the last recorded note of the case.

That the spleen must have important functions is shown by (1) the intimate and unique way in which the blood is brought into contact with the spleen tissue; (2) the enlargement during digestion; (3) the large rhythmical contractions and expansions; (4) the large white cells in the pulp which contain more or less disintegrated red cells, or else are colored with hæmoglobin; and (5) the differences between the blood brought to the spleen by the artery and that carried away by the vein, the proportion of white to red corpuscles being 1 to 2000 in the former and from 1 to 60 or 70 in the latter; the blood in the vein is also said to have a higher temperature and to contain smaller, brighter, less flattened red cells which do not form rouleaux and on which water has not the same destructive power that it has on the ordinary red cell, and it also contains an increased proportion of the products of oxidation or reductives as well as hæmoglobin or its derivatives, free in the plasma. The spleen, therefore, must have a most important influence on the life-history of the red cell, probably being the crematorium of untold millions of the "used up" and the health resort of the invalids. Again, from the great amount of lymphoid tissue in the organ, the great increase in the number of the white cells in the splenic vein, the increase of them in the general circulation in diseases of the spleen, the leucocytosis in fevers where the organ is also enlarged, and the increase following its irritation, it may be considered certain that the spleen is a great manufactory of the white cell.

These considerations impressed me with the great importance of leaving a portion of the spleen to fulfil its functions and led me to devise a method of partial excision, by which means the organ can be reduced sufficiently in size to ensure its being under the protection of the costal arch. In addition I hoped that such an operation might throw light upon the functions of the spleen and possibly upon some points in the etiology of malarial fever. It may be mentioned here that with the latter object in view in three cases the spleen was exposed and to irritate the organ, MORTON'S fluid injected into its substance. This was done in conjunction with my friend Surgeon-Lieutenant-Colonel LAWRIE, but beyond the fact that the dogs were very quiet with hot noses, accelerated pulse, and a possible slight increase of temperature for a couple of days, no result was obtained and the blood examinations were negative.

Anatomy.—The anatomy of the dog's spleen is very similar to that of the human being, the most marked difference being in its shape, which is more elongated, flatter, with a distinct depression or fissure running transversely from about midway along its anterior border. Its size varied considerably, chiefly with the size of the dog, but in a few cases it was fibroid; it was generally from 5 to 6 in. long, from 2 to 2½ in. broad, and nearly 1 in. thick. The splenic artery divides about 1½ to 2 in. from the spleen into branches (from four to eight in number) which spread out, like the ribs of a fan, to enter the hilus which extends lengthways along the inner surface of the spleen terminating a short distance from either end. The phrenic artery often gives off a branch which supplies the upper extremity of the spleen.

The operation.—Under chloroform the abdomen and thorax were well washed and the left side was shaved and rendered as aseptic as possible. An oblique incision three inches long was made an inch below, and parallel to, the margin of the ribs. The spleen was brought gently out of the wound, lower end foremost, only as far as was necessary, the upper end not being exposed except in those cases where this was the end removed. A pair of SPENCER WELL'S forceps was applied to the lowest arterial branch where it entered the hilus; another pair of forceps was applied to the same artery about a quarter of an inch farther from the spleen; the tissues between these forceps were then divided with scissors and two more forceps applied, as before, to the next vessel. In this way the gastro-splenic omentum was divided without loss of blood and without undue strain on the pedicle up to the level of the proposed division of the spleen (several arterial branches were left to supply the upper end which was to be retained). The forceps on the spleen-side of the divided gastro-splenic omentum were then laid along the inner surface of the lower end of the spleen, and an assistant raised this end and the forceps, so-

1. Medical Annual, 1895. Reported by Mayo Robson.
2. The Lancet, Vol. 1894, Sept. 14th 1894, and quoted by Mayo Robson in the Medical Annual, 1895.

that both surfaces of the spleen were well in view. At the point where it was decided to divide the organ the blood-flow through it was arrested by a continuous ligature used in the following way: a long needle threaded with thirty coarse silk twist ends and a half feet long was inserted on the inner or "under" surface about half an inch from the edge or border and passed through the thickness of the spleen, emerging on the outer or "upper" surface about the same distance from the edge; the ligature was drawn through until the ends were equal; the free end was then brought up round the border of the spleen and a "double turn" made with the two ends and drawn as tightly as possible, this "turn" being kept over the exit of the needle. The needle was then passed back through the spleen on the occluded side of the organ as close to the line of ligature as possible and an eighth of an inch to the "edge or border side" of the turn; this was done in order that the next loop should include the spleen where the needle had previously passed through, so that any oozing along this track should be stopped when the loop was drawn tight. The needle was then re-passed through the spleen from the under to the upper surface half an inch further on and a double turn again taken and drawn tight. Continuing in this way the breadth of the spleen was traversed. A reef-knot was then tied and the ends were cut short. The needle may be passed from the upper to the under surface and the turns made on the under surface, but the way described is the more convenient. The occluded end of the spleen was then cut through close to the line of ligature. Separate ligatures were tied round each portion of the gastro splenic omentum included in the forceps, any tension on the pedicle being relieved as these were tightened.* The peritoneum and the three muscular coats were severally united with continuous sutures, the skin incision not being closed. The whole operation was completed in from fifteen to twenty minutes.

The points in the operation which I wish to emphasise are: 1. Its great facility, especially when the double turn is made by twisting the needle round the free end and so getting this double turn on the needle before drawing tight. 2. The oozing which takes place during the passage of the needle is at once checked by the coarse silk and stopped altogether when the loop is drawn tight. 3. The section of the spleen was absolutely bloodless, except in one case where a middle loop had not been tied tightly enough; here bright arterial blood oozed away gently, but a similar ligature at that point, tied tightly, at once stopped the bleeding which did not exceed one drachm. 4. In no case did the ligature cut through the spleen, a little of the pulp only being expressed as the loops were tightened. In the large majority of my cases coarse silk was used for the continuous ligature, but in two or three cases about carbolised catgut was employed. 5. The very low mortality.

In cases of rupture of the spleen which are seen in time for surgical interference this continuous ligature may be employed to arrest the hæmorrhage, but the procedure to be adopted would depend upon the extent and position of the rupture. If the injury be of small extent, surrounding the bleeding surfaces with the continuous ligature may be the best treatment; if of larger extent it would probably save time and be better to excise the damaged portion in the way described. This ligature will also, I believe, be found to be of service in hysterotomy and in small ruptures of the liver. Nineteen dogs had the lower half of the spleen excised without a death; three dogs had the upper half removed with one death. None of the dogs in which the lower half was excised appeared to suffer the slightest inconvenience or shock after the operation, they at once ran about unfettered and ate voraciously anything they were given. The three dogs which had the upper half excised suffered greatly and one died from shock. It is the removal of the upper half of the spleen which is in my opinion so full of danger, so prolific of shock and often hæmorrhage from some small vessel which has either been overlooked or else has retracted before the ligatures were tied. The removal of the upper half is more difficult than that of the lower half; many more vessels need ligaturing, including, in some cases, the branch from the phrenic previously mentioned and which may easily be overlooked with fatal results. This artery was present in two of the three excisions of the upper half and in three of my six total excisions. In man it is also occasionally present. Mr. G. A. WRIGHT, of Manchester, and Surgeon-Major HATCH,[1] of Bombay, report cases where hæmorrhage from this vessel caused the death of their patients, and Mr. WRIGHT knows of three other similar cases. Again in removal of the upper half greater tension has to be applied to the pedicle which is, I believe, a distinct cause of shock. Whether the whole spleen or only its upper half be excised does not affect the present argument. In the six cases of total extirpation, before referred to, all the dogs suffered greatly from shock and there were three deaths, the one already mentioned from marasmus and two from shock. If to these six be added the three in which the upper half was excised with one death, we have nine cases and three deaths from shock, a mortality of 33·3 per cent., the survivors also suffering greatly as compared with the nineteen cases of excision of the lower half with no shock or death. May not this great difference be explained by a consideration of the nerve-supply of the spleen and of the relative damage done to the sympathetic nervous system in each case? For on these sympathetic nerves depends the normal tone of all the abdominal vessels and viscera containing any muscular tissue, and all changes in the calibre of these vessels—paralysis or inhibition of their vaso-constrictor fibres causing an extreme fall of blood-pressure, the animal practically bleeding to death into the abdominal vessels—and sudden death has resulted from a slight blow in the epigastric region or from a draught of cold water interfering with the functions of these nerves. It may be well to briefly consider the blood-supply of the spleen first, as the arteries are surrounded or accompanied by the nerves.

The splenic artery, by its [illegible] supplies the body and tail of the pancreas; the left gastro-epiploic

* The length of this will depend upon the breadth of the spleen to be ligatured. At the commencement of these operations a needle was threaded at each end of the silk, but this is unnecessary if the needle be inserted in the way described, as the "double turn" brings the needle back into the right position for further use.

† In some of my cases these vessels were applied before the spleen was ligatured across. The stage at which these vessels are tied is immaterial.

1 Quoted by Jacobson in his [illegible] pp. 340, 341.

supplying about the greater curvature supplies both surfaces of the stomach, and sends branches to the omentum on the left side, some of which pass on to supply the spleen, either branching to the stomach, the vasa brevia, four to eight in number, are given off towards the termination of the splenic artery, some of these arising directly from the trunk and some from the upper two or three of the terminal or splenic branches. The artery then divides some little distance from the spleen into a varying number, from five to ten, terminal or splenic branches which enter at the hilus and ramify in the body of the spleen; some of the upper of these, as we have seen, give off short gastric branches. In addition to the above there is often the branch from the phrenic running to and supplying the spleen.

The nerves which accompany these arteries are derived from the solar plexus. This, the largest sympathetic plexus in the body, is built up by the semilunar ganglia, nerves from the lumbar portion of the ganglia ted cord of the sympathetic, the great splanchnics, and the vagi. Through its secondary plexuses it supplies the diaphragm (in part) and all the viscera and blood-vessels of the abdomen. Of these secondary plexuses the cœliac chiefly concerns the present argument. This plexus is of large size, derived from the fore-part of the solar plexus, is joined by the two small splanchnics, and on the left side is augmented by large, direct branches from the right vagus. It then furnishes the coronary, hepatic, and splenic plexuses; the latter, surrounding the splenic artery, is again joined by direct branches from the left semilunar ganglion and the right vagus. It supplies the pancreas and stomach through its pancreatic and left gastro-epiploic plexuses, some of the latter running on to the spleen, it again supplies the stomach by branches accompanying the arterial vasa brevia and then running with the terminal branches of the artery ends in the spleen. In addition to these nerves there are branches from the diaphragmatic plexus accompanying the branch from the phrenic artery when this is present. During an operation it is impossible, of course, to separate these nerves from the arteries, so that a ligature necessarily includes both. A comparison of the operations may be thus stated. (*a*) Removal of the whole spleen necessitates the ligaturing of—1. The splenic branches or, what is the same thing in effect, the splenic artery and nerves before they divide into their terminal branches. 2. The vasa brevia arising from the terminal or splenic branches. This must be done even if the trunk of the splenic artery itself be divided or else, with the free anastomoses that exist on the stomach, there will be hæmorrhage backwards along these branches; neglect to ligature these arteries is probably the cause of some of the deaths from hæmorrhage after the extirpation of the organ. 3. The branches from the left gastro-epiploic and phrenic when present. If these have been divided close to the spleen, as many as from fifteen to twenty small vessels and their accompanying nerves may be included in the different ligatures we also include. If the splenic artery itself be divided, this number would be reduced by the five to ten terminal branches, but the effect on the nervous system would be the same, the "trunk" of the nerve being involved in place of its branches. (*b*) Removal of the upper half necessitates the ligaturing of the same arteries, except the lower two or three terminal branches, as many as from twelve to eighteen vessels and nerves being included in the ligatures on the pedicles. (*c*) Removal of the lower half can be effected by ligaturing the lower two or three terminal branches only. In the two latter operations there is in addition the continuous ligature across the spleen.

From this it will be seen that excision of either the whole or the upper half of the spleen involves a great damage to the splenic plexus with its intimate—three-fold if I may so call it—connection with the solar plexus and right vagus; entails direct interference with part of the nerve-supply of the stomach and omentum and severe indirect interference with the vagi and all the sympathetic nerve-supply of the abdomen; the diaphragmatic plexus is often involved and considerable tension has to be applied to the pedicle, and therefore on the cœliac and solar plexus and the vagi, thus augmenting the interference with these nerves. The excision of the lower half entails but slight damage to the splenic plexus and therefore but slight indirect interference with the solar plexus and vagi; the nerve-supply to the stomach, the omentum, and the diaphragmatic plexus is never involved and but slight tension has to be applied to the pedicle. As shock is due to severe inhibition and exhaustion of nerve function[1] and the grosser the lesion the greater is the shock that results, this great difference in the amount of interference with the nervous system in these operations is the explanation, I believe, of the great difference in the amount of shock following them; and in the excision of the whole spleen or of the upper half the resultant shock is due to inhibition and exhaustion of the vaso-constrictor fibres of the abdominal sympathetic, and is probably intensified by great interference with the proper performance of the functions of the heart, lungs, stomach, &c., reflexly by means of the vagi. These considerations would induce me to advise in suitable cases in the human being—*e.g.*, abscess, tumour, or cystic disease confined to the lower half or in hypertrophy which resists medicinal treatment—the excision of the lower half in preference to that of the whole spleen, as the same object would be attained—the removal of the disease or the enlargement—whilst a considerable portion of the spleen would be left to carry on its function, and further, there would be, as a reasonable inference, a considerable reduction in the death-rate.

Immediately after the operation there was as a rule a slight loss of weight, this was quickly recovered, and all the dogs, except one gained weight subsequently, the least gain being ¼lb. and the greatest 8¼lb. This increase in weight was in the majority of the cases undoubtedly due to regular and liberal feeding which to their previous homeless lives the dogs had been unaccustomed to, but in four cases in which the gain in weight was greatest the dogs were small and probably not full grown at the time of operation, so that part of the increase was most likely due to the normal growth of the dogs. The temperature (rectal) of these dogs was most constant; in nine of the twenty-one survivors it never varied from 103°F.; in three it never quite reached 103°, ranging from 102·2° to 102·8°; in eight the highest was 103° and the lowest

1 Foster's Text-book of Physiology, fifth edition, Part III, p 803.

103·4°; in the other on one occasion it reached 103·8°. The greatest individual range of temperature, except one was 0·6. All these cases were operated upon with a daily atmosphere temperature of from 97° to 104° in the shade. The case alluded to stands by itself; it had been accustomed to regular feeding prior to operation, having been a house-dog; it was the only one in which the temperature exceeded 103°, in which there was loss of weight and a marked or permanent alteration in the number of red corpuscles and the only one in which filaria were found in the blood, which probably is the explanation of all these differences. Two of the dogs were subsequently killed by an overdose of chloroform; the spleen had assumed a flattened globular shape and had increased slightly in size since the excision of the other part, but had not attained its original size. The capsule at the site of section showed signs of old inflammation and the omentum was adherent at this point. In one case the continuous ligature was found encapsuled, in the other it had been absorbed.

The blood.—The examinations of the blood and the enumeration[1] of the corpuscles were most interesting. In an extensive tabulated statement which records the details of a series of experiments but which the limits of our space preclude our reproducing, the first five cases are excluded from the following remarks as the number of corpuscles could not be ascertained before operation, and the subsequent enumerations in Cases 1 and 2 showed only a steady increase in number of the red and white coincidently with the growth of the pups; Case 3 showed no marked change and Case 5 will be referred to later. Before operation the number of red corpuscles varied from 3,500,000 in Case 12 to 6,000,000 in Case 16, the average being 4,920,000 per c.mm. If Cases 11, 12, and 21 be excluded, for reasons to be shortly stated, the average would be 5,170,000 per c.mm. The white varied from 30,000 in several cases to 60,000 in Case 6, the average being 41,000 per c.mm.; the proportion of white to red being 1 to 120. After operation in the majority of cases there was no marked change in the number of red corpuscles; excluding Case 10 they averaged 4,900,000 per c.mm., as against 4,920,000 before operation; excluding Case 11, 12, and 21 the average would be 5,100,000 per c.mm., as against 5,170,000 before operation. This small difference might well be due to errors of observation before or after operation, any one of which would necessarily be multiplied 10,000 times. The white corpuscles showed an immediate increase in number after operation, the smallest increase being 20,000, the greatest 40,000, and the average 30,000 per c.mm. the ratio of white to red being altered to from 1 to 70. This increase reached its maximum soon after the operation, began to diminish a fortnight to six weeks after, and in those cases that were under observation two months after operation the number of white and the proportion of white to red was normal again. This temporary increase was probably due to the irritation of the continuous ligature and the localised inflammation of the spleen and its capsule at the site of section. The Cases 11, 12, and 21 were small dogs which increased considerably in weight after operation; the red cells also increased in number, and from a comparison of these cases with the pups (Cases 1 and 2) it is probable that they were not mature at the time the operation was performed, and that the increase in weight and in the number of the red cells was consequent to the growth of the dogs.

In the ordinary microscopic examination, stained and unstained—and the following remarks apply to all twenty-one surviving cases—the red cells were normal, in a few cases they were vacuolated, and in Case 10 pale and deficient in hæmoglobin. The white were apparently of two kinds, small and large. The small variety was circular, usually finely granular, with two or more nuclei, but often contained only one nucleus and at times were coarsely granular; they were never seen to change shape. The large variety was usually coarsely granular with one nucleus, the latter being of various shapes, semilunar, round, serpentine, &c., often giving to the cell the appearance of being multi-nucleated; occasionally these large cells were multinucleated and rarely finely granular; they exhibited free amœboid movement. Sometimes the large and at other times the small variety was more numerous. Although these two kinds were the usual white cells seen at times, other forms were found, intermediate in size, sometimes mononucleated, at others multinucleated, sometimes coarsely, at others finely granular and rarely having both fine and coarse granules in the same cell. The impression was thus given that the large and small varieties were only stages in the life of the same cell. In Case 5 there were seen occasionally very large multinucleated white cells with a diameter two or three times that of the ordinary large variety mentioned above; they exhibited free amœboid movement, had coarse and fine granules in the same cell and often large vacuoles. One of the most interesting points in the blood examinations was the appearance, in Cases 5, 6, 8, and 9, of bodies which were extremely like those Laveran discovered in malarial blood. So great indeed was the similitude that had these bodies been seen in the blood of a patient suffering from malarial fever, I have no hesitation in stating that they would have been pointed out as fairly typical specimens of the "rosette" and spherical extra-corpuscular, or free stages, of the parasites. I hope in another paper to describe these bodies more fully. An interesting blood worm was seen in Case 10 and watched for three-quarters of an hour. It was round in shape and in breadth nearly but not quite the diameter of a red cell. It was impossible to define its length on account of the free movements when alive and to its being coiled up when dead, but when nearly straight it reached across the field (Leitz eye-piece 3, objective 7), one or other end being out of sight. Its body was cylindrical, tapering rapidly near the tail. Its head was slightly smaller in diameter than the body and blunt-ended with a transverse "depression" rather nearer the under than the upper surface. When first seen, the worm was gently waving its body in exactly the same way as an eel does when swimming; at short intervals it was seen to retract its head and then rapidly shoot it out. By careful watching it was seen that a red corpuscle was the object aimed at, and that as the head shot forward, a triangular-shaped "tongue" was protruded from the depression; this was at once withdrawn when the corpuscle was

1 By Gowers's hæmacytometer.

[illegible] to leave the corpuscles at each [illegible] the depression in "mouth"; of the [illegible] attacks the corpuscle was paler than [illegible] and corpuscles were in turn attacked and [illegible] large white cell was attacked in the same way, but after two or three blows the worm moved on and to [illegible] the field had to be changed and as the white cell was lost; when first attacked, this cell was moving and my impression was that the movement ceased with the attack, but too short a time was allowed to be sure of this. In about half an hour the worm gradually ceased to attack the red cells and its movements became much more vigorous, swimming about so rapidly that it was difficult to change the field quickly enough to keep the worm in sight. Occasionally at this stage it coiled itself up like a watch-spring and suddenly straightened itself out, dashing the red cells about in all directions; these convulsive or lashing movements became more and more frequent until there was hardly any intermission. The worm then appeared to grow weaker, its movements became less in number and vigour, and at last it lay still, coiled up in two and a half convolutions. As this change of movement was taking place the blood was seen to be coagulating, this probably causing the death of the worm, which then appeared to be faintly striated both longitudinally and circularly.

In conclusion, I desire to express my grateful acknowlegements to the medical department of H. H. the Nizam's Government and to Surgeon-Lieutenant-Colonel LAWRIE, the Residency Surgeon and Principal of the medical school, for the kindness and courtesy they extended to me during my residence in Hyderabad, and for the facilities and resources they so willingly placed at my disposal for these and other investigations. My thanks are also due to Dr. NELLY EVANS, Dr. KALAYAN RAO, and Dr. SYED MOHAMMED for their assistance in the blood examinations. Dr. EVANS also performed successfully several partial excisions of the spleen by the operation described.

DISEASES OF THE CORNEA.

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TYPES OF CORNEAL ULCERS.

(*a*). *Absorptive ulcers* (indolent ulcers).—These ulcers are characterised by their essentially chronic course, by their being unattended with symptoms of inflammatory irritation, and by their showing little or no tendency to extend to the deeper layers of the cornea or to terminate by cicatrisation. They appear suddenly, that is, are observed without premonitory symptoms, as if the loss of substance were the result of absorption of the corneal tissues, and do not seem to go through any stage of evolution or repair. Seldom occurring in anæmic and debilitated subjects, they are very common in cases of chronic trachoma. They are at first small, with transparent sides and bottom, regular circumscribed borders free from any but a very inconsiderable surrounding tissue. The two most frequently forms of indolent ulcer are:

1. The shallow (non-irritable) central ulcer of chronic and trachoma, (see above).

2. The excavated or gorged out ulcer, which occurs chiefly in children, and remains stationary for months, rebellious to every form of treatment. The ulcer is generally marginal, and on account of its transparent character and absence of pain, photophobia and congestion, it is very liable to be overlooked. Complete healing of the ulcer rarely, if ever, occurs, in spite of the apparent attempt at repair, which is observed in the form of a feeble vascularisation. A clear facet always remains upon the cornea giving rise to disturbance of vision from irregular astigmatism.

(*b*). *Serpiginous or creeping ulcers.*—These are characterised by a slow creeping progress in the cornea. They are met with under several forms.

1. *Ulcus serpens of Saemisch. Syn.* Ulcus septicum (*Stellwag*); Hypopion keratitis (*Heser.*) Begins generally near the center of the cornea in the form of a greyish infiltration superficially situated, which in an exceedingly short time by the breaking down of the anterior lamellæ, becomes converted into an ulcer with sharply-defined margins. On one part of the margin there is an elevated arc-shaped infiltration yellower than the rest of the ulcer; it is along this curvilinear elevation—known as the arc of propagation—that the ulcerative process extends rapidly both in superficial area and in depth. Hypopion and iritis are, as in abscess, present as a rule from the beginning. Inflammatory symptoms may or may not accompany the local lesion.

Saemisch ulcer is most frequently caused by slight trauma of the cornea, infected either by ordinary pyogenic microbes, or what is more probable, considering the malignancy of the ulcer, by a specific micro-organism not yet isolated.

It chiefly attacks people above middle age, notably the old and feeble. Rarely it is found occurring in young people. In its origin, in the course which it runs and in its very serious terminations, the ulcus serpens of SAEMISCH forcibly calls to mind, what we have before described as corneal abscess. Indeed many authors, among others VON ARLT and ED. WEBER, consider the ulcus serpens to be identical with abscess, the former even going so far as to say that SAEMISCH, in his contention that his "ulcus serpens has nothing to do with corneal abscess" has created a new nomenclature without cogent reasons." If, however, the essential difference between an ulcer and an abscess consist in the anatomical fact, that in an ulcer the suppuration is superficial ab initio, then we must regard the lesion as an ulcer and not as an abscess. The difference is in reality a technical one; for it must be confessed that the clinical history of the ulcus serpens does not justify the creation of a broad line of distinction between it and abscess.

2. *Ulcus rodens of Mooren.*—It is marginal creeping ulcer of the cornea, and is always accompanied by marked inflammatory symptoms. The crescent-shaped zone of ulceration is separated from the healthy portion of the cornea by a grey clouded and undermined margin. The evolution of the ulcer is characterised by alternate

exacerbations and remissions. After the lesion has lasted sometime it begins to show signs of healing; the ulcer cleans and becomes partially vascular. These favorable indications are however transient in duration, and very deceptive. A relapse quickly follows, symptoms of irritation set in, and the ulcer reprogresses forwards in the cornea. This kind of discontinuous invasion is repeated many times until the whole of the cornea is involved in the process of destruction and blindness supervenes. Perforation of the cornea, which may be considered the rule in SAEMISCH's ulcer, again occurs in this disease. Ulcus rodens is essentially an affection of old age.

3. "*Snail-track*" *ulcer of keratitis fascicularis*, results from a phlyctenular ulcer. As this heals a leash of blood vessels run up to it from the limbus and helps in the process of cicatrisation. Whilst the ulcer is healing by its margin—that is at the part turned towards the limbus—its opposite part directed towards the center of the cornea, continues to creep forwards, carrying with it the track of blood vessels (*vascular fasciculas*, or *herpetic bridge*). When the ulcer heals, the vascular fasciculus disappears, but always leaves behind it the evidence of its existence in the form of a permanent stripe of opacity. The snail-track ulcer throughout its evolution remains superficial and never gives rise to perforation. It is a disease of childhood and adolescence, and occurs in scrofulous subjects.

4.—*Dendriform ulcers.* These ulcers occur in that form of keratitis described as *keratitis dendritica* or *keratitis mycotica*. I have never observed a case of this disease in my out-patient clinique. It is more than probable that the form of keratitis is dependant upon a special microbe. The inflammation extends in a characteristic ramifying manner (arborescent or dendritic) quite superficially, each branch having at its end a small rounded elevation. The ulcer so produced is furrowed—each furrow or axis of ulceration is bordered by slightly elevated ridges of infiltration.

Dendriform keratitis occurs in the acute form as well as a sub-acute or torpid lesion. In the former case the symptoms of inflammatory irritation are marked from the beginning, and there is a tendency for the ulcerative process to implant itself in the deeper layers of the cornea; in the latter case, on the contrary, there is little or no inflammatory irritation, and the ulceration is restricted to the anterior epithelium. The disease appears never to be complicated with iritis; BERRY has, however, seen it occasionally associated with hypopion. According to FUCHS, *keratitis dendritica* is simply a form of *herpes cornea febrilis*. The ulcer formed by the rupture of the herpetic eruption extends in a linear manner through the cornea, at the same time becoming forked and giving out lateral branches—hence the formation of the characteristic branch-like figure.

The treatment of dendritic ulcers consists in washing the eye with weak corrosive sublimate lotion, and repeated instillations of eserine.

Treatment.—Corneal ulcers occur under such protean forms and are produced by such a variety of causes that it is impossible to formulate rules of treatment which shall be universally applicable. The following remarks, however, may be taken as indicating the general principles upon which the treatment of ulcers of the cornea is to be based:—

1. In all cases it is imperative to give careful attention to the *indicatio causalis*. A large proportion of primary ulcers of the cornea are of traumatic origin, the wound becoming infected either by the body causing the injury itself, or by a source of infection already present in the eye, a purulent blenorrhœa or a dacryo cystitis, for instance. The removal of these, therefore, constitutes the first step in the treatment of the induced condition. Among foreign bodies in this connection are to be included inverted cilia, calcareous concretions on the inner surface of the upper lid and marginal papillomata. In ulcers which arise secondarily to inflammatory conditions of the conjunctiva, such as catarrh, acute blenorrhœa, or trachoma, the treatment of the primary lesion is of the utmost importance, and in the majority of cases it will be found that the healing of the local suppuration keeps pace with the progress towards recovery made by the particular lesion of the conjunctiva upon which it is dependent. The point of importance to be borne in mind is that cauterisation of the conjunctiva is not contra-indicated because of the presence of corneal ulceration. In trachoma, for instance, to which undoubtedly are due the major part of corneal secondary ulcers which come under our notice in out-patient ophthalmic practice, it would be folly to expect any amelioration of the ulcerative process, if the surgeon abandons the cauterisation of the conjunctiva with the sulphate of copper crystal or the solution of nitrate of silver. It is a canon of ocular therapeutics that "infiltration is a formal indication against any irritating agent," and therefore, what is wanted in the treatment of a corneal ulcer caused by trachoma so long as any infiltration lasts, is not the abandonment of the appropriate treatment of the original disease by caustics, but the prevention, as far as possible, of the cauterising agent coming in contact with the cornea. If sulphate of copper is selected for the treatment of the trachomatous condition, its application should immediately be followed by a copious ablution of the everted lids with clear cold water. If, on the other hand, silver solution is chosen as the cauterising agent, it should be applied according to the method of A. VON GRAFE, by means of a camel's hair pencil, or a tampon of cotton wool carried at the end of a probe, directly to the palpebral conjunctiva, and any excess that may be present, should be washed off with water containing a small quantity of sodium chloride. It is a fatal error, (and one which, it is to be regretted, is often committed), to use in cases of conjunctival inflammations complicated with ulcer, the silver solution as a collyrium—the so-called "caustic lotion drops."

It is not necessary to add that cauterisation of the conjunctiva with acetate of lead when ulcers are present upon the cornea is a wholly unjustifiable proceeding.

2. The *indicatio morbi* requires that the treatment should procure rest for the eye, reduce the inflammation, retard the progress of the ulcer and hasten the process of repair.

The best method of obtaining rest for the eye is to keep it bandaged. The object of bandaging (a pro-

active bandage is sufficient in all recent cases) is two-fold; first to secure immobilisation of the lids, which by their movement in every act of opening and closing produce friction of the ulcer and thus keep up the irritation; and, secondly, to prevent dust falling upon the bottom of the ulcer and acting as a mechanical irritant. In those cases in which the corneal ulcer is associated with profuse discharge, as in purient conjunctivitis, the bandage should either not be applied at all, or if it is used, it should be frequently changed and the eye washed out with an antiseptic lotion.

The use of the bandage should not be discontinued until the regeneration of the epithelium is completed. During the acute stage, the treatment should consist in instilling into the eye a solution of eserine and cocaine, 2 to 4 grains of each alkaloid to the ounce of distilled water, three or four times a day, or oftener. In this way pain and photophobia are both combated successfully, and the progressive period considerably reduced. Should, however, the pain be very acute and the local measures just mentioned found to be insufficient, recourse may be had to hot poppy or belladonna fomentations, or to hypodermic injections of morphia. In sthenic cases a leech applied to the temple is beneficial.

When the ulcer has become clear, or when from the beginning it has been of the indolent or torpid type, we should resort to local stimulation by means of irritants. Those in most frequent use are powdered calomel, the ointment of the yellow oxide of mercury, 1 to 4 per cent strength; the tinctura adstringens luteum* of the Austrian Pharmacopœia (also called HORST's eye-water), and SYDENHAM's tincture of opium, according to the following formula:—

Tinct. Opii. (SYDENHAM)				
Aq. dest.	...	...	...	aa ʒss.

Whilst these remedial measures are being employed to stimulate the process of reparation, the treatment of the primary lesion should not be lost sight of—if a relapse to the acute stage is to be averted. Particular attention is to be paid to the conjunctival secretion, for it is an amply attested fact of experience that the transparency of a corneal cicatrix depends in a large measure upon the amount of secretion during the period of healing of an ulcer; the less the secretion the more transparent is the reparation tissue and *vice versa*.

Constitutional treatment, in the shape of cod-liver oil, iron, quinine, a liberal and sustaining diet, in all those cases in which there is reason to believe that the patient's general health has given way, is to be carried out in accordance with general principles. The importance of constitutional treatment as an essential factor in restoring the cornea to a normal condition is brought forcibly into prominence in cases of ulcers due to strumous or lymphatic conjunctivitis. These ulcers occur almost exclusively in weakly, poor, and ill-fed children or in adults who are more or less in a state of physical exhaustion. In such cases, whilst the local treatment proves undoubtedly beneficial, the duration of the illness, and what is of still greater importance, the tendency to recurrence which these ulcers manifest, are greatly minimised when attention is simultaneously paid to the general condition of the patient. In out-patient ophthalmic practice, the greatest drawback to success, in a large proportion of cases, arises from the inability of the children's parents to carry out the surgeon's advice as to the necessity of better hygienic surroundings, and of a more generous regime as to diet and clothing.

Spreading ulcers.—It is a fortunate circumstance that a very large proportion of these even in their worst form—as for instance Saemisch's ulcer—are amenable to medicinal treatment without surgical interference.

The drug, par excellence, which we rely upon for the purpose of curing extensive infective ulcers of the cornea, no matter how originating, is eserine, in combination with the hydrochlorate of cocaine. The formula for the collyrium being:—

Eserinæ Sulph.			
Cocain Hydrochlor	...	...	aa gr. ii.
Aq. dist.	...	...	ʒi

Under the influence of these drops instilled into the eye three to six times a day, large sloughing ulcers of the cornea with or without hypopion, heal as if by magic, and the resulting opacity is thinner and more circumscribed than under any other form of treatment. The power of eserine to reduce intra-ocular tension is well known. "This pressure," as Dr. EDWARD MEYER has remarked, "is one of the chief causes in keeping back the normal nutrition and the reparative process in the cornea;" hence the beneficial action of eserine in suppurative lesions of the cornea.

Apart, however, from this indirect influence, there can be no doubt that eserine acts in a very direct manner upon the suppurative process itself by checking diapedesis on the one hand, and by promoting the absorption of purulent matter on the other, by causing dilatation of the ciliary vessels.

The objection to the use of eserine is generally urged in those cases of corneal ulcers, in which a symptomatic iritis complicates the issue. No doubt eserine produces congestion of the ciliary body and iris, and if used alone, would enhance the already existing iritis and lead to troublesome synechiæ. Its combination with cocaine, however, entirely does away with such a possibility—and indeed there is, from this point of view, no reason against the intercurrent use of atropine when there is iritis present, say once a day until the iritic inflammation has subsided.

I have obtained the most beautiful results with eserine and cocain in numberless cases of deep progressive ulcers of the cornea, and the irresistible conclusion drawn from a very large experience of the action of these drugs used in combination, is that for all forms of progressive ulcers they are to be regarded as specific remedial agents, just as much as preparations of mercury and iodide of potassium are for syphilis. Of the value of atropine in cases similar to those in which I use eserine and cocain there can be no doubt, and occasions do arise in which it is much better borne. In general, however, it is the inferior agent of the two, and except for special indications, preference should be given to eserine.

*Form: For HORST's eye-water:—
Am. Chloridi 80 c.gr.; Zinc sulph. 120 c.gr. Dissolve in 200 grms. of Aq. dist. and add 1 sol. of 40 c gr. of Camphor in 20 grms. of dilute alcohol and 10 c.gr. of Saffron. Digest for 24 hours with frequent agitation and filter.

Pilocarpine lotion is also, in many cases of infective ulcers, a most effective remedy. It should be applied by means of a small piece of cotton wool rolled over the end of a Bowman's probe, to the sides and bottom of the ulcer, care being taken that the fluid does not come into contact with the healthy portions of the cornea. After this application, which causes no pain, atropine should be instilled and the eye bandaged up. One or two applications a day are enough; it is most gratifying to find even large hypopions quickly disappearing under this treatment and the ulcer entering upon the stage of regression and healing. Iodine possesses marked antiseptic properties, and is free from the liability to precipitate insoluble saline compounds leaving indelible opacities, and beyond causing slight abrasion of the epithelium, which however is quickly regenerated, it gives rise to no irritation of the cornea. I have not known it to cause any ciliary blepharitis or to form deposits in the inferior cul-de-sac of the conjunctiva.

Pure carbolic acid and iodoform, very finely powderd, are remedial agents which have been favorably spoken of, but of which I have little or no experience.

Whilst the treatment with one or the other of the remedies spoken of is going on, the process of repair is to be encouraged by the frequent use of *hot compresses*, and the washing out of the conjunctival cul de-sac with *antiseptic lotion* such as corrosive sublimate lotion (1 to 10,000).

The compresses are made with thin muslin folded several times and cut into 2½-inch squares, or with antiseptic gauze cut to the same size. These are wrung out in hot carbolized water (120° F), or sublimate lotion, and applied every day for an hour or more They should be changed as often as may be necessary in order to be constantly warm.

Recently Dr. GEORGE WHERRY of the Addenbrooke's Hospital, Cambridge, has brought to the notice of the profession the value of airol powder in the treatment of septic ulcers of the cornea associated with hypopion According to him, some of the most threatening cases have been treated successfully with this powder. I give the method of using airol in WHERRY's own words —

"The eyelids are held open and the airol powder flicked on to the eye with a dredger, the powder turns gradually to an orange color, and in three to six hours the conjunctival sacs are washed out gently with boric water, which brings out superfluous cakes of yellow powder The airol is again used as before, and this proceeds every few hours, the eye being treated by the open method—no bandage or pad is used—but the patient is kept in bed.

"The ulcer heals, and the pus is absorbed in a proportion of cases greater, as far as I can judge, than by other methods The eye is singularly tolerant of the airol; in no case have I seen signs of irritation from its use, and when incision and cautery have been used, the after-treatment by airol has seemed to be satisfactory."—*British Medical Journal.*

In the majority of cases, even the worst forms of corneal ulcers yield to medicinal treatment, conducted in a rational and conscientious manner, but if in spite of all efforts the ulcer continues to spread, and in case of its spreading downwards perforation is impending, we must resort to surgical intervention. The means at our disposal are . paracentesis of the anterior chamber, cauterization with the actual cautery (galvano-cautery, thermo-cautery, or Paequelin's; or in the absence of these a knitting needle or a wire made red-hot in the flame of a spirit lamp); curetting with a sharp spoon; and SAEMISCH's operation.

ON A METHOD OF OPERATING IN SENILE CATARACT.

By ASAR, SIMSON MONTGOMERIE, GUPTA, L.M.S.

Late House Surgeon, Eye Infirmary, Medical College Hospital, Offg. Civil Medical Officer, Balasore.

THE remarkable success which attends Dr. SAEMISCH' operations for cataract at the Eye Infirmary, Medical College Hospital, prompts me to publish the method of operation with its after-treatment as practised by him in that hospital.

The subject may be conveniently described under the following heads :—

I. *Selection of patients*.—As to the general health of the patient, it is desirable, as in every other surgical operation, that it should be as good as possible.

Diabetes is no contra-indication; heart disease, anæmia and age do not form any obstacles, persons over eighty years have been successfully operated on. Patients suffering from chronic Bright's disease, with a large quantity of albumen in the urine are to be rejected, as in these cases there is a great danger of sloughing of the cornea; and, further, the operation might be rendered unsuccessful, by the case being complicated with previous retinal changes.

As to the condition of the eye itself, it should be ascertained that the cataract is quite mature by the aid of the ophthalmoscope. The eye should be carefully examined for intra ocular diseases It is the usual practice here to examine the fundus of every patient suffering from incipient cataract, and to note down the result in his ticket for future reference When the lens of the eye to be operated on is too opaque for ophthalmoscopic examination, we might sometimes get some useful information by examining the fundus of the other eye. But unfortunately we often get cases with advanced mature cataract in each eye In such cases our chief reliance is on the patient's perception of light This should be examined with utmost care. In an uncomplicated case of cataract of the most opaque kind perception of light is always left behind.

The drooping head, the wrinkled forehead, and the cautious walking of a cataract case, may be well contrasted with the erect head, the vacant staring look, and the peculiar walk, of a case complicated with serious changes in the fundus

The condition of the appendages of the eye should be examined. Granular ophthalmia, conjunctivitis and diseases of the lachrymal passages should be cured or relieved as much as possible before the operation is undertaken. Successful operation may, however, be performed in the presence of slight granular ophthalmia.

Of other minor complaints, coryza, if troublesome, will have to be relieved before the operation.

II. *Preparation of the patient*.—Soon after admission into the hospital, the patient is given a good bath (preferably a hot one), and his clothes are changed. Whenever possible, the patient is allowed to rest for three or four days or more before the operation. This is all the more important in the case of half-starved patients. During this period boric acid lotion (gr. viij to ℥ iss.) is dropped into both eyes three times a day. On the day previous to the operation, a mild purgative is

glands, until [illegible] lotion (gr. ½ to 1 oz.) is dropped into the eye thrice daily. On the previous evening and the morning of the operation, the eye and its neighbouring parts, especially the inner and outer canthi of each eye, are thoroughly washed with tepid boric lotion. Bichloride of mercury lotion is never used, as it always excites some irritation in the eye and tends to produce some haziness of the cornea. A few minutes before the operation, while the instruments are being prepared, a few drops of cocaine solution (gr. xvi to 1 oz. freshly prepared with boiled distilled water) are dropped into the eye at intervals of a few minutes; care being taken not to drop the mouth of cocaine, as when put in excess it has a tendency to lower the vitality of the cornea, which is so important for subsequent healing.

III.—*Instruments, dressings and lotions to be kept ready are*:—A lid spring top speculum (Weiss), one fixation forceps (with double teeth by Francis without a spring catch), von Graefe's cataract knife—as sharp as possible, curette, cystitome (Graefe's) and a hard rubber spoon; and in case there be occasion to use, a bent iris forceps, iris scissors and a scoop or victis. Preferably these instruments should be by Weiss.

During the whole period of operation, a small quantity of boric lotion is kept boiling in a small toy *degchi* on a retort stand heated with the flame of a spirit lamp. The instruments are kept in a clean, dry porcelain dish, and each of them is dipped into the boiling lotion just before use. The instruments are boiled every time they are used. (Before the instruments are finally put back in the box, each of them is boiled, carefully dried, and dipped into absolute alcohol.)

Small bits of sponge or absorbent cotton-wool are kept wet with tepid boric lotion in a clean porcelain cup. These are used to wipe away discharges, cortical masses, &c., from the conjunctiva and are not used a second time. The assistant hands over each instrument in its turn in such a manner as to make it unnecessary for the operator to look away from the field of operation.

As to dressings: two pads of sal alembroth wool (one for each eye), a little sanitas vaseline and soft muslin roller are all that is required. The following eye lotions should be kept in readiness —

1. Sol. atropinæ sulph. (gr. iv to 1 oz.)
2. Sol. eserine sulph. (gr. ii to 1 oz.)

IV. *The position of the patient.*—The patient lies down on a table or couch of convenient height, with his head resting on a pillow high enough to make the plane of his face horizontal. In hospital practice where several patients are to be operated at the same time, it is a good plan to spread a canvas stretcher over the table, so that when the operation is over, the patient can be easily carried to his bed without the least exertion on his part. The table should be so arranged that good light falls on the patient's face, and no shadow is cast on it by the operator's hand. Direct sunlight and draughts are to be carefully avoided. In case of deficiency of light, an assistant can reflect light with an ordinary hand mirror.

The operation.—The operation usually performed here goes by the name of VON GRAEFE'S modified method. Iridectomy is not performed as a routine practice. In cases complicated with posterior synechiæ, or where there is any excess of intraocular tension, or where the lens is unusually big, iridectomy is performed.

Just before the operation, the operator and his assistant wash their hands with antiseptic soap and water. While the instruments are being made ready, the cocaine drops are put in. Generally three instillations of a few drops each are quite sufficient to produce the necessary anæsthesia. Sometimes for nervous patients it is better to put a few drops of cocaine lotion in the other eye also. The head of the patient should be covered with a clean towel. The patient is directed to look downwards with his mouth slightly open; he is not to strain or make himself stiff in any way.

The operator stands behind the patient, and the speculum is applied. He holds the knife in the right hand for the right eye, and in the left for the left eye, and with the other hand he holds the fixation forceps. The globe is seized and drawn slightly downwards by the conjunctiva and sub-conjunctival tissues close to the cornea on its outside, a little below the termination of its vertical axis. The forceps should be held at right angles to the surface of the globe, drawing the conjunctiva away from its surface, and it should exert no pressure over the eye-ball.

The section is made on the upper edge of the *clear cornea* so as to include about two-fifths of its circumference. "The precise length of the incision, as determined by the points at puncture and counter-puncture should be modified in accordance with the surgeon's estimate of the diameter of the hard nucleus."

The point of the knife is entered in the margin of the clear cornea just in front of the sclero-corneal margin and is first directed towards the centre of the eye-ball; and as soon as the anterior chamber is reached, the handle of the knife is depressed and the blade is carried across in front of the iris, so as to transfix the cornea at the same level as its point at entrance. By a few gentle sawing movements of the knife the incision is completed, keeping the edge of the knife well upon the border of the cornea. Just before the completion of the section, the knife is cutting its way out, its edge is sloped a little forwards—so that the middle of the incision is on a slightly anterior plane to that of either end. By this procedure a nice little lid is formed, which helps so much in the ready union of the wound.

It will be observed that the incision is confined strictly within the corneal tissue. In case of cataracts with milky cortex, the section should be smaller as the nucleus is always a small one.

2nd stage: *Capsulotomy.*—Now the surgeon puts away his knife and introduces the cystitome flatwise. With the blunt angle of its end first, keeping it well up, close to the posterior surface of the cornea. Then the instrument is turned, so that its point is directed towards the lens, and the capsule is torn freely by a few gentle rounded movements. During this process, the cystitome should be held in a slightly oblique manner, and it should not dig into the lens, as then it is apt to dislocate it. The cystitome is withdrawn sidewaye with its blunt end directed towards the wound. No sooner the capsule is torn, the lens advances forwards, distending the enlarged pupil before it.

3rd stage: *Delivery of Cataract.*—Now the patient is directed to look downwards towards his feet, avoiding all

efforts at straining. The eye is steadied as before by the fixation forceps, care being taken that it does not exert any pressure over the globe. The convex surface of a shell spoon is now laid against the lower part of the cornea, corresponding with the lower margin of the lens, and firm and at the same time gentle pressure is applied, at first in a backward direction, so as to cause the lens to rotate on its horizontal axis and to present its upper margin at the wound; then the pressure is changed into a backward and upward direction, so as to coax the cataract out. As soon as the diameter of the lens has passed through, the pressure is relaxed, and as the cataract slips through the wound, the spoon is made to follow it. With a bit of wet sponge or with the back of the shell spoon, any cortical fragments at the margin of the incision are swept off. Now, at this stage, sometimes a bit of iris is found to be protruding through the wound. This should be at once reposed by gently separating the lips of the wound with the edge of the spoon or with a spatula. The proper management of pressure is indeed a very important portion of the operation, and can only be learnt by experience. In inexperienced hands the escape of the vitreous with consequent loss of the eye is mainly due to improperly applied pressure. Dr. CARTER truly remarks that "the proper management of pressure is the last attainment of the operator for cataract."

4th stage or toilette of the wound.—After the delivery of the cataract, the cortical masses are removed in the same manner as the lens by gentle pressure with the curette or with a bit of wet sponge. To press the cortical matter out, the pressure should be directed backwards and slightly upwards Any cortical masses sticking inside the anterior chamber or at the upper part close to the section are removed by introducing the curette and drawing them out. In this stage, if the capsule is seen to be opaque, it is gently pulled out with a pair of bent iris forceps. Thus the pupil is freed of everything till it becomes quite black, and the vision becomes such that he is able to count fingers at several feet.

Now, if the patient begins to move his eye about, or to strain (as he often does at this stage), it is wiser to take off the speculum and to leave the eye-lids to the charge of the assistant, as the speculum always exerts certain amount of pressure on the eye-ball, and more so when the eye is moved in different directions, and this pressure is quite enough to rupture the hyaloid membrane and cause an escape of the vitreous.

As to the introduction of the scoop and other instruments into the anterior chamber, it might be said that the fewer number of times the instruments are introduced inside the eye, the better. The less the eye is handled, the quicker the wound heals, and the lesser the chance of complications. In experienced hands, one introduction of the curette is quite enough to clear the pupil. Sometimes a second introduction becomes necessary. After this, the wound itself will have to be seen too. If the pupil is noticed to be irregular or not quite round, it will be found that a fold of the iris is caught between the lips of the wound. This is easily remedied by separating the lips of the wound with a curette or spatula, and the iris at once falls back to its original position by its own elasticity. Then the wound should be freed from any tag of capsule adhering to it.

Now the conjunctival sac is thoroughly cleansed of cortical masses, &c., and both eyes are closed. If there be much contraction of the pupil or if there be any suspicion of a bit of cortex having been left behind, a drop of atropine lotion is put in, over the closed lids a circular piece of soft muslin (big enough to cover both the lids) smeared with sanitas vaseline or pure vaseline is placed and moulded to them in such a manner as to be without a wrinkle. Over it a small ball of sal alembroth wool, big enough to cover the lids, is placed; over the other eye also a pad of sal alembroth wool is put and a figure of 8 bandage is applied, and the patient is put to bed. The vaseline prevents the dressing from becoming hard or from sticking to the skin of the lids, and makes it easy to take off the first dressing.

The patient is not allowed to move about, or sit up in the bed or strain or to talk much for the first 24 hours. He is kept on slops for the first 48 hours, after which he is allowed soft food, and to sit up a little on the bed. If the patient happens to be very feeble and debilitated, he is allowed a couple of ounces of brandy for the first three or four days.

Dressing.—After 24 hours the first dressings are changed. If everything goes on well, the examination of the eye is put off till the fifth morning. Swelling of the lids, chemosis, watery, or muco-purulent discharge or pain in the eyeball are signs which call for an early examination and appropriate treatment. At the first and subsequent dressings, the lids are freely douched with tepid boric lotion and a drop of atropine lotion is instilled. Subsequent dressings are applied every 24 hours. Both eyes are kept closed with light pads of sal alembroth wool till the fifth morning, when, if the case has been progressing normally, the wound is found to have united, the pupil dilated and black, with only a slight ring of redness round the cornea. From the fifth day, only the eye operated on is kept closed with a light pad and bandage This is continued as long as there is much congestion. Afterwards a green shade is put on.

Before concluding, I desire to express my indebtedness to Brigade-Surgeon-Lieutenant Colonel R. C. SAUNDERS, for kindly permitting me to publish this paper, and also for going over the manuscript.

"CATCHING COLD" AS A CAUSE OF DISEASE.

FROM a general survey of the subject, CHALMONSKI concludes that "catching cold," in the ordinary sense, is not a causative factor in disease, playing in general a very subordinate part as an etiologic agency. In inflammatory diseases it may act only as a predisposing factor. "Catching cold" depends upon the activity of thermic agents which are usually not to be avoided; that is, upon the influence of slight degrees of cold. The degree of cutaneous reaction to the given thermic stimulus is an indication whether the individual may take cold under certain conditions. The degree of disposition to "catching cold" forms no constant peculiarity of the given individual. Individuals of advanced age, febrile patients, and those suffering from renal disease appear to be more disposed than others to disease resulting from "catching cold." Between the predisposition to such disease upon the one hand, and the nutritive state and the temperature sensibility upon the other, there is no connection. The prophylactic measures directed in general toward "catching cold" are not only attended by a directly opposite result, but they further expose the organism to far greater danger than is to be anticipated from disease resulting from "catching cold." Protection against such disease may be secured by increasing the reactive capability to thermic irritants by means of suitable exercises.—*N. Y. Med. Rec.*

A MIRROR OF PRACTICE.

A CASE OF CARCINOMA OF THE RECTUM: EXCISION: RECOVERY.*

By Arthur Neve, F.R.C.S.,
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The following case is of interest as showing that in some respects the perineal operation of proctectomy is more easily performed in women, specially in multiparæ, than in men, but it must not be forgotten that, as Allingham[1] has pointed out, the peritoneum descends lower in the female than in the male; in the former it is frequently less than 3 in. from the anus, while in men 3½ in. to 4 in. from the anus is the common site for the reflection of the serous membrane. The mortality of the operation is high; it has been given by Butlin[2] as 35 per cent., and by Ball as 165 per cent; the one is probably too high and the other too low.

A Panjabi woman, servant in the family of a distinguished officer, had been ailing for some months but had had great increase of pain since a fall fifteen days before. She was admitted on 7th June 1895. She appeared to be over fifty years of age, and was exceedingly feeble. Much pain was complained of, and there were frequent motions with much straining. Blood, mucus, and pus were passed. On digital examination a tumour could be felt on the posterior aspect of the rectum extending from near the sphincter for a finger's length upwards. Laterally it measured about two and a half inches in diameter. There was a considerable amount of thickening extending upwards with an ulcerated centre. Owing to the comparative accessibility of the parts in a multipara, Mr. Neve decided to excise by the perineum. The operation was performed on 13th June with the assistance of Dr. Ashton and Dr. M'Culloch. The usual lithotomy position was employed. The anus was widely dilated. An incision was carried outside the sphincter for the posterior two-thirds of its circumference and continued back to the coccyx and a little up on the right side. The tissues were rapidly separated in front and on the left side, cutting, where necessary, with scissors; pressure forceps were left on the bleeding points. Separation was then effected on the right side to a point level with the upper limit of the tumour. Thus a strip of the anterior surface of the rectum was left continuous with the sphincter. The attachments of the tumour above proved too dense for the scraseur, so they were cut through with scissors as high as the third sacral vertebra. The incision seemed to go through tissue infiltrated by carcinoma, as proved to be the case when the part removed was examined by Stiles' method. Dr. Neve cut away some nodules that were within reach and also a gland the size of a marble. The pelvis could now be easily explored as the gap admitted the whole hand. A strong solution of chloride of zinc was applied to the raw surface and the wound was packed with gauze, a glass tube having been inserted in the bowel, several pairs of pressure forceps remaining *in situ* till next day. The loss of blood had been considerable. The progress of the case was uneventful. On the following day the stuffing was removed. Feces collected in the wound and had to be daily cleared out by syringing with dilute creolin lotion. Ten days later the cavity was fast closing and the wound towards the coccyx narrowing. On 13th July, a month after the operation, the patient was able to get about the ward and the wound was closed. She returned to her mistress in August and in the winter obtained employment elsewhere. When heard of, she was said to be fairly well and at work (April, 1897).

Remarks by Dr. Neve.—The relief given to the patient by this operation was very striking. At the time I did not consider that the disease was eradicated and the history is not sufficiently complete to prove that it had been. At the operation the view of, and access to, the diseased parts was all I could wish for. To have performed Kraske's operation would have been needlessly severe and would scarcely have afforded any better chance of extirpating the disease. In this case it was not necessary to open the peritoneal cavity. The infiltration was all posterior with dense periosteal adhesions to the sacrum. Had the patient been a man, it would not have been possible to have removed so much through a perineal incision. It is in males and in cases where the tumour is situated anteriorly, or where the peritoneal cavity has to be opened and the whole rectum drawn down, that Kraske's operation is serviceable.

* Reproduced from the *Lancet*.

1 International Encyclopædia of Surgery, Vol. vi., p. 122.
2 Operative Surgery of Malignant Disease, p. 241.

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CARBONIC OXIDE POISONING: A SAD TRAGEDY.

By Assistant Surgeon H. D. Pant, L.M.S.
Gonda.

I was hurriedly summoned by the Station Master of Gonda, on the morning of the 15th January 1898. On reaching the place I found four people dead in one room. The room was 10×8×10 feet with only one side window. The family had retired at night, shutting the doors, coals being burned to keep them warm. When I entered the room it was stuffy and full of the smell of coal gas. The *post-mortem* signs were so similar that the description of one suffices for the four. The heart and lungs were gorged with bright red blood. There was liquid blood of the same color in the cavities of the heart. All the muscle and tissues were also tinged scarlet. A condition once seen, never forgotten.

It is a necessary duty on the part of the Railway authorities to provide pucca rooms for its servants with some proper means of ventilation. A simple opening on the roof or wall would have prevented this sad calamity to a family of four souls, a husband, wife, and their two sons.

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ENORMOUSLY ENLARGED SPLEEN AND LIVER DUE TO MALARIA: DEATH: *POST MORTEM* RESULTS.

By Ram Lall Sircar, C.M.S.
Camp Line Law, Anglo-Chinese Boundary Commission.

Mah Tu, a male Kachin, aged 30, had been admitted into the Bhamo Civil Hospital off and on, during the last ten years, for ague, enlarged spleen, liver, etc.

The patient was of small build with chest, contracted, body emaciated, and shrunken skin, but with an unusually enlarged abdomen.

[illegible] paragraph, he was [illegible] perforation and upon from which he recovered, but was shortly after attacked with erysipelas which affected [illegible] the whole of the body extending from the shoulders to the thighs; from this he also recovered only to be re-admitted during the rainy season of 1896 for low fever and jaundice, on which diarrhœa supervened, and ultimately caused his death.

As soon as the body was removed to the dead-house, the chest and abdomen having been laid open and the organs exposed to the utmost, I had a photograph taken of the viscera. The annexed diagram is a fair representation of the photograph and depicts the enormously enlarged liver and spleen.

Post-mortem.—The lungs were displaced upwards and bore marked impressions of the ribs; the heart was also displaced upwards. The liver extended from the right to the left hypochondriac region overlapping the spleen to which it was adherent. It weighed 7 lbs. and was 18" long by 10" broad. The spleen occupied the hypochondriac and lumbar regions, as well as a part of the iliac, pressing upon and displacing the intestines, weight 6½ lbs. The entire body weighed only 53½ lbs.; it will thus be seen that the liver and spleen together weighed rather more than a quarter of the weight of the whole body.

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NASAL DEFORMITY AND OBSTRUCTION DUE TO A LARGE RHINOLITH.

By Assistant Surgeon H. D. Pant, L. M. S.

Gonda.

Gokul, aged 50, was admitted into the Gonda Sadar Dispensary on 6th January 1898 suffering from obstruction in the right naris. The obstruction had lasted three years. The right side of the nose was very prominent and the nostril considerably dilated. He was admitted for polypus of the nose. On introducing the forceps the thing felt hard and bone-like, and was with difficulty dislodged and taken out, dilating the nostril considerably. It weighed about 400 grains and was of a flat circular shape 2½ × 2½ × ½. It was sawn through like a bone and was found to consist of much gritty material intermixed with hard inspissated mucus and blood. I send these notes for publication, as rhinoliths are rather rare, and I have never seen one of this size before.

Indian Medical Record.

1st March, 1898.

HOSPITAL ABUSE IN INDIA.

The question of hospital abuse is one that touches us all nearly, and if we have been silent on the subject of late, it is not that our eyes have been closed to the evils which surround us.

This abuse is a plant of old standing; it has spread its roots far and wide; it has increased to an alarming size, and its baneful influence extends to everything in its neighbourhood.

Throughout the length and breadth of England and the United States of America, the outcry against it has been growing louder and louder, until at length the cry of Reform has become almost universal.

Associations have been formed with this object, the general practitioners have taken up a determined position, the lay Press has lent its voice, and the Dukes of Devonshire and Bedford have discussed the subject in semi-public speeches.

It is time that the medical profession in India should follow this lead, and take steps to put an end to this abuse, which every year presses more heavily and more unfairly upon its members.

It may be asked, what is this question of Hospital Abuse? Well, in its simplest form it amounts to this, that well-to-do people are the daily recipients of charity, that they stoop to partake of benefits intended solely for the use of paupers, that to a certain extent they are, in fact, robbing the poor.

Now the crime of robbing the poor has, in all ages and in all countries, been deservedly held in special loathing and abhorrence, yet in the British Empire, at the end of this nineteenth century, it thrives and may even be said to be fashionable and very much so in Calcutta, Madras and Bombay.

When a dole of bread is given to the poor, or when a soup kitchen is opened for their use, we do not find respectable people rushing to take advantage of it, though bread and meat are part of their daily wants. No, because no one objects to paying their butcher's or baker's bills.

With the doctor's bill it is different.

Where the question of medicine and medical advice is concerned, people are found ready to abandon all the rules,—we will not say of rectitude and honor; for it would be superfluous to suppose they existed in these cases,—but of that common honesty, by which, under the penalty of ostracism, they are bound to regulate their conduct in all the other relations of life.

That this should be so is a disgrace, and a double disgrace; a disgrace to him who gives and to him who takes. Yet it is so, and in this great city of Calcutta it is a plain and openly acknowledged fact.

In the *Indian Medical Gazette*, for February, which deserves the thanks of all, for the calm and moderate way in which it lays its finger upon these sores, we read that "persons who cannot be considered [illegible] paupers or

in poor circumstances, they who would be disgusted if their social position were questioned where a function at Government House was concerned, yet have no shame in obtaining medical advice, and even treatment, at a charitable institution. In fact the numbers of private carriages to be seen in front of such institutions is sufficient proof of the circumstances of the owners, who drive up in them apparently without any idea of the incongruous appearance they present."

Now for this scandalous state of things it is perfectly plain that there are three sets of people to blame:

1. The impostors who receive the charity.
2. The Hospital Staff.
3. The ruling authorities who are responsible for the rules of the hospital and their proper observance.

The first are the traffickers in stolen goods.

The second are the Judas Iscariots who rob the poor.

The third are the evil councillors who veil the face of the king.

To veil the meanness of accepting charity, charity intended for others, the first are ready with two excuses, which, though weak, are the only ones that can avail them anything, ignorance and custom They did not know that they were partaking of what was not meant for them, they did not reflect upon the ugly light in which their conduct might be placed, and, so and so had done so before, why should not they?

For such persons the remedy appears fairly plain and simple.

1. Have a large notice on either side of the portal, setting forth in large letters the object of the institution

2. Make them assemble in a common room and take their turn strictly with the legitimate patients.

When we come to consider the attitude of the hospital staff, we touch upon a question of wider range and more varied aspects.

In one respect it is the old hospital monopoly working against the interests of the general practitioner.

No one can for a moment doubt that a good hospital connection is an excellent magnet to attract a private practice, and of course it may be unduly used for this purpose.

We are told by an American correspondent of the *Lancet*, that a very large majority of the medical practitioners of New York are in favor of a radical change in the methods of conducting the hospitals and dispensaries, and are determined to leave no stone unturned to gain their object, and there can be no doubt but that their efforts in this direction will be crowned with success. On the other hand, it may be said that there is no real desire on the part of the managers of the hospitals and dispensaries to remedy the evil; in fact, it is to their advantage that the present system should continue, so that it is practically a fight between the hospital boards on the one side, who wish things to remain *in statu quo*, and the outside practitioners on the other side, who desire reform, and the position in London does not appear to be very different.

In the Presidency and other large towns in India, however, the general practitioner is in a worse plight, for he has not only to compete with men holding influential posts in the large hospitals, the influence of which is the more felt in proportion to the limited number of the population, but he is still more heavily handicapped by the fact that all these men are highly subsidised by Government.

Now we know what a clamour is raised when Government tampers with private enterprise in any matter connected with trade, and how the whole "Press" sounds a trumpet call of alarm.

Why then should medical enterprise not be equally sacred.

The time has gone by when this subsidised medical labor was necessary, and the time has come for its abolition. It is an anachronism at the present day when India is able to supply her own wants both through her own medical schools and universities and the recruits it receives from abroad.

Now with regard to the attitude of the hospital staff to this question of hospital abuse, we have it on the authority of the *Indian Medical Gazette*, on whose opinion in this matter we can place the surest reliance, that they do not do as much as they might to remove it.

"The complaints that some of them have made," it says, "can be answered by the fact that the remedy lies in their own hands."

Cases do, however, undoubtedly arise where they are powerless owing to the rules not being sufficiently strict, or laid down with sufficient definiteness, and it is here that the authorities can step in and put the matter on a proper and satisfactory footing.

A clear representation of the state of the case and of what is required, to the Lieutenant-Governor, would, we believe, be soon followed by a wholesome change.

It has for some years now been the opprobrium of India that so little has been done to advance medical science. We have had occasion to remark that there no longer exists such a thing as an English School of Tropical Medicine, and where should we look for it if not to India.

In India, however, original research in this direction appears to be dead. The fund of valuable material in our large hospitals and medical schools is wasted. When we turn our eyes in their direction we are not dazzled by the clear light arising from scientific investigation which they diffuse, but by the large incomes arising from lucrative private practice.

"Where the treasure is, there the heart is also." Let us hope that the new departure of prohibiting the Superintendent of the European General Hospital from engaging in private practice, will prove not only the first step in righting a long-felt wrong, but also the inauguration of a new era in Indian scientific medicine.

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THE AMŒBÆ OF DYSENTERY AND ENTERITIS

Considering the importance of everything connected with the etiology of Dysentery and Liver Abscess, in a country where these diseases are so common, we are glad to be able to follow up our notice of Dr. Windsor's conclusions, (in last issue) with the following admirable summary of the subject from the pen of a well-known German writer.*

* Dr. Friedrich Roemer, translated from the German (Munchener Medicinische Wochenschrift, 11th January 1890).

[illegible]

[illegible] ; [illegible] ; [illegible] ; [

[illegible] depends [illegible] of the [illegible] the [illegible].

[illegible] their own peculiar [illegible].

[illegible] and European dysentery amœbæ are [illegible] red blood corpuscles or their remains (to [illegible] the reddish-yellow color) to a greater or less extent, in proportion to the amount of blood in the dejecta.

I found in one case an Eosinophile corpuscle inside an amœba.

The amœbæ have, as a rule, a round nucleus with a nucleolus, and often two or more nuclei.

Sometimes it happens that the coloring matter is arranged in the shape of crescents at opposite sides of the nucleus, which appears to point to the division of the nucleus.

I have not seen division take place, but the forms depicted (in the chart accompanying the original) lead to the surmise that the amœbæ increase in the intestines by cell division.

With regard to the vacuole, and the bacterial contents I observed nothing that is not already known.

The attempt to cultivate the amœba was not successful.

In two cases, typical dysentery with an abundance of isolated amœbæ, was excited in cats by the dejecta from cases of tropical dysentery.

The experiment was tried in 6 cases, of which 4 were of tropical origin, the cat is, however, not altogether such a reliable reagent as many affirm; perhaps my experiments also may be open to objection, as only full-grown animals were employed.

As far as I have studied the bacteriological side of the question, I have made no observations of any importance.

After these results I am not in a position to place myself on the side of those who consider the etiology of dysentery as settled, and accept the amœba as the vera causa.

Although the amœba was found in all the 15 cases of dysentery investigated by me, this in my opinion does not bear out this theory.

For I could discover no really characteristic distinction between the amœba of tropical, and European, or of German dysentery and that of ordinary enteritis: my opinion is more fixed since QUINCKE and ROOS[8] confirm it by observations from true (Sicilian) dysentery and chronic enteritis, and VON BOAS[9] partially supports it.

The size, substance, and movements of the animal are not typical either of the origin of the dysentery, or of the [illegible] of enteritis.

In [illegible] dysentery I have found plenty of large-sized amœbæ, while QUINCKE and ROOS from their Sicilian [illegible] found the small [illegible] in the true dysentery [illegible].

[illegible] anything distinctive in the fact of the [illegible] red blood corpuscles in the above named [illegible].

In cases of dysentery, which had never been out of Germany, and in other cases which had certainly been contracted in Germany, [illegible], corpuscles and their remains were seen in the bodies of the amœbæ, as in tropical dysentery.

If red blood corpuscles are present in large quantities in the contents of the intestines, the occurrence of their appearance in the amœbæ is [illegible]. But in the cases of enteritis reported by QUINCKE and ROOS, there was no blood in the stools, so it is evident that the amœbæ in the intestinal canal became loaded with red blood corpuscles.

A [illegible] form on which these writers lay much stress, I have not observed.

To complete the investigation of the pathogenic rôle of the amœba, a similar irritation must be excited by amœba-cultures, and in this respect we are more fortunate in regard to dysentery than cholera and typhoid; for we have in the cat a susceptible animal for experiments.

The recent experiments of [illegible] with amœba cultures, promise to increase our knowledge, and the question will not have to wait much longer for a solution.

On the other hand, there is the opinion, not yet definitely disposed of, that the amœba in the intestines is only a harmless parasite, like the monads and many kinds of bacteria, which finds a condition peculiarly suitable to it, in the free secretion of glairy slime in intestinal catarrh, and multiplies rapidly.

The most powerful argument in favor of the pathogenicity of the amœba, so far, lies in the fact that living amœbæ are found in the pus of dysenteric liver abscesses, while no other micro-organisms are present, and that with such pus typical dysentery can be produced in cats, in the same way as with dysenteric stools (KRUSE and PASQUALE).

Those authors who have the opportunity of studying the etiology of dysentery and the infections caused by amœba cultures should observe the evacuations at the earliest possible stage, if possible on the first day, and note, if the amœba is not originally absent and only makes its appearance when the disease has lasted some time.

If this is the case, this behaviour which is unfavorable to its pathogenicity has to be explained.

It is also worthy of notice, that in my researches I observed very large CHARCOT's crystals in dysenteric stools.

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THE MADRAS SANITARY REPORT FOR 1896.

This is a very well got up Report, and contains a store of useful information concerning all that pertains to sanitation in Madras.

A special feature to be commended is a large number of excellent diagrams, comparing the birth and death rates, with price of food and rainfall in the different districts.

The estimated population for the year was 36,655,033.

In rural areas, the birth-rate was 33·7 per 1,000, and the death-rate 17·6 per 1,000. In Municipalities the rates were respectively 29·2 and 28·2 per 1,000: all calculated on the estimated population.

The infantile death-rate was 163·0 per 1,000 in rural areas and 232·9 per 1,000 in Municipalities.

Steps have been taken to make registration under these heads more effective, and penalties have been inflicted in 950 cases.

We could wish that the circular tables, showing the birth-rates and death-rates in each registration circle were printed in such a way that they could be read from one point of view, without the necessity of turning them round.

Cholera accounted for 47,947 deaths during the year, or 1·3 per 1,000 of the estimated population; the districts chiefly affected being Bellary and Coimbatore; it is pointed out that this disease has a marked seasonal character, its maximum incidence coinciding with the monsoon periods.

As there are two monsoons, the North-East and the South-West, this relation is more clearly established; for each place suffers most during the monsoon to which it is most exposed.

An excellent cholera map is given, showing by different densities of coloring the different degrees to which the disease prevailed in each place.

The largest mortality is returned under the unsatisfactory head of "fevers," the figure being 260,769 or 8·0 per 1,000; the next highest figure after cholera is 24,802 or 0·7 per 1,000 from dysentery and diarrhœa.

We learn that the mortality from "fevers" has not been so low since 1891, and that both these years (1891 and 1896) of comparatively small fever prevalence were marked by deficient monsoons "in the ceded districts where malarial fevers are largely prevalent."

The subject of "fevers" in the whole of Madras and their causation is a subject on which a good deal of light has still to be thrown.

If anything were required to impress upon our minds that water is at the present time the fashionable mode of conveyance for all diseases, we would find it under the head of sanitary works. We find a formidable list of water-supply schemes, either completed, in course of construction, or about to be undertaken.

From a table on page 46 "inserted by order of the Government of India," we are able to judge of the benefits derived from the water at any price policy, commenting on the facts set forth in the table, the Sanitary Commissioner says: "It cannot be said that the results acquired so far are very striking."

We, however, think that they *are very* striking; for we cannot find that any benefit has accrued from these water works, though some of them have been completed a good many years.

It is of course easy to find explanations, but the facts are solid facts; a large amount of money has been expended and there are no results, the policy on its own showing stands condemned.

A good water supply is no doubt a very excellent thing, but it does not seem to hit at the root of disease in Madras, doubtless it is not the whole of sanitation, and there may be other and simple things which might be attended to first. It is useless to polish the diamond before it is cut.

"Fevers" are the chief source of mortality in Madras; it is not suggested that they are waterborne; the first thing to do to lower the mortality is to find out their cause and then take steps to remove it.

In one place Kerur, (Coimbatore) we notice that the water supply scheme is to take precedence of the drainage scheme, which is postponed; this, we think must be contrary to the advice of the Sanitary Commissioner, and it is certainly opposed to common sense sanitation: to bring water to a place without taking steps to remove it is certain to induce disease.

In Table II, Appendix D, under the head of "Principal Sanitary defects of Circle" there is a list of sanitary shortcomings, which it is impossible to exaggerate, unfortunately the condition is common to the whole of India.

To cope with such a state of affairs would afford plenty of scope for the most energetic Sanitary Commissioner, and a staff much beyond what is known in this country.

The column headed "Drainage" loses much of its value from the indefiniteness of the term. Drainage is one thing and sewerage is another, and it would be well if the two things were kept separate.

Dr. KING only perpetuates the legal technicalities of the English Public Health Act by talking of "house drainage."

In England we know that the pipe that carries sewage from a house is a drain, while the pipe that carries it from a town is a sewer; but would it not be well in the country to do away with this absurd distinction and call every channel for the conveyance of sewage a sewer? Under the head of "Personal Proceedings," the Sanitary Commissioner says, "Of the total of 365 days, I was absent from head-quarters on inspection duty 210 days. During this period, I travelled 9,784 miles by road, rail and canal."

Now we think that a Sanitary Commissioner, whose time is thus taken up, is not only an overworked man but that his services are not utilised to the best advantage by the Government.

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KHAN BAHADUR CHOKSY'S PLAGUE REPORT.

A very able and lucid "Report on Bubonic Plague" has been issued by Khan Bahadur N. H. CHOKSY, Extra-Assistant Health Officer, Bombay Municipality.

The Report is based upon observations of 939 cases of Bubonic Plague treated at the Arthur Road Hospital, Bombay, from 24th September 1896 to 28th February, 1897. In addition to its importance from a medical point of view, it illustrates in an interesting manner the attitude and prejudices of the natives in regard to the Plague, and the measures taken to combat it, which

[illegible] to this [illegible] Hospital, [illegible] open [illegible] with a stone plinth [illegible] with stage ventilation, supported on iron [illegible] and [illegible] flooring. They are usually closed [illegible] bamboo and mat fronts. The size of each of [illegible] is 117 by 40 feet."

The floors, we are told, "came in for a good deal of adverse criticism," and that "opinion was pretty equally divided amongst the servants as to whether a permeable and frequently removed flooring, or an impermeable and permanent one was best for a tropical climate." Subsequently, "one shed was experimentally paved with Indian Patent Stone."

A vivid description is given of the efforts of the much overtaxed institution to meet the unprecedented and daily increasing claims of the epidemic, and special attention is called to the difficulty of getting servants. "Pay, however large, was no inducement!" The terrifying sights and sounds and the large mortality of a plague hospital were too much for them, and many after working a short time fled in terror.

In spite of these difficulties the staff struggled bravely on. "The strain," we read, "was terrible, and it is indeed a source of wonder when thinking calmly over those days to realise how the whole staff passed safely through such critical times."

The generous devotion for which the medical profession is justly celebrated, was not wanting in those trying days, and we are proud to record the names of Doctors PILGAONKAR and Miss MANECK TARKHAD who, Khan Bahadur CHOKSY says, "volunteered to assist me during the most trying period of the epidemic, and I cannot sufficiently thank them for the valuable aid they rendered me." "Doctors MOON and C. F. UNDERWOOD also assisted me for a short time."

Nor must the nurses be forgotten. These important duties were placed in the hands "of the Sisters of All Saints on the 6th of February, and no words could suffice to eulogise the devotion and zeal they brought to bear on the nursing of plague patients at no inconsiderable personal risk and sacrifice." Miss ATKINSON, of Cama Hospital, also joined the Sisters in this work, and Mr. RICHARDSON, F.C.S., PH. D., assisted for a considerable period in nursing the patients."

The mortality was very high—78·26 per cent. This was in part due to "the ignorance and prejudice of the people always averse to going to a hospital." So that many patients were brought in a dying condition, when it was too late to do anything for them.

If the number who died within the first 24 hours after admission be deducted, the percentage death-rate is brought down to the respectable figure of 60·34.

The superstitious native mind, always apparently ready to attribute the worst motives to what they cannot understand, misconstrued the object of the hypodermic injections given to reanimate and support the strength of the sick; "and it was openly stated that the doctor were killing the patients in order to stop the further ravages of the epidemic. It was also freely said that the patients were purposely killed [illegible] hours after [illegible] in order to send them to Her Majesty the Queen-Empress to appease her wrath, on account of the disfigurement of her statue, which occurred at the beginning of the epidemic." These miserable ideas, the outcome of the ingenuity of superstition, culminated in a raid on the hospital in the afternoon of the 29th October 1896, when a large number of evil minds, estimated at from 600 to 1,000 rushed [illegible] this hospital, with a view to wreak their vengeance on the hospital staff for the alleged killing of patients."

Thus these zealous workers, in the midst of all their anxious troubles, were in danger of being martyred by those to save whom they were risking their lives.

In this dreadful time all the natural feelings of affection were lost amongst the afflicted population, the ties of relationship, no matter how close, ceased to touch the heart; husbands were deserted by their wives, wives by their husbands, and little children by their fathers and mothers. People bringing sick to the hospital gave wrong addresses to avoid recognition, their only desire being to escape all further responsibility.

The master passion of cupidity however survived and the greater part of those who ventured into the hospital, did so with the object of removing the last ornaments from the bodies of the dying.

Of the hospital staff Dr. P. W. DAVRA and three ward "boys" contracted the disease. The former, we learn with regret, succumbed a martyr, dying in the service of others; the others had mild attacks and all recovered.

The remainder of the Report is of a more technical character.

It was noted that people who were better fed had a better chance of recovering than the worse fed.

The types of plague are classified as follows:—

1. Pestes' minor, or extremely mild plague.
2. Pestes' ambulans.
3. Pestes' simplex bubonis, or simple bubonic plague.
4. Pestes' septica or septic plague.
5. Pestes' pulmonalis or pneumonic plague.
6. Non-typical forms of plague.

"Besides the above, two other forms have been mentioned. Abdominal and laryngeal." Cases of these types were not observed.

Types 3 and 4 are particularly characteristic of plague, and their difference is rather a question of degree than of kind, "depending, as it does, upon whether the plague bacilli infect or do not infect the blood."

"So long as the bacilli are confined to the lymphatic system alone, without infecting the blood, the case may be called simple bubonic, but once the blood is infected and graver symptoms develop, the case becomes septic."

In the pulmonary form "it is supposed that the pneumonia is primary. In some cases, however, of undoubted primary pneumonia, all efforts to discover the presence of a bubo during life failed, but on *post-mortem* examination, deep-seated axillary buboes were found." It is therefore debateable whether these glands were primarily or secondarily affected. The sputum in these cases is loaded with bacilli and forms a possibly fertile source of the spread of the disease.

Modes of infection.—In spite of the preponderance of femoral and femoro-inguinal buboes, not more than 5 per cent. could be traced to direct infection through breach of the skin; although most of the patients admitted, had numerous cracks and fissures on the soles of the feet and elsewhere, and had gone bare-footed all their lives, "yet traces of inflammatory mischief from the absorption of the virus through the crack or fissure were conspicuous by their absence."

Infection may also take place by inoculation with the pus from buboes, which at first contains a large number of bacilli, through the sputum, and through inspiration.

"It has not yet been ascertained in what proportion of cases the excreta contain bacilli," the Austrian Commission examined a large number of cases carefully, but were not successful in demonstrating the bacillus.

Incubation.—The incubation stage, as a rule, was found to be from three to six days.

The aspect and speech were always characteristic, sufficiently so in most cases for the formation of a diagnosis. The facies Pestica presents a mixture of "dread, anxiety, and resignation."

The speech was of two kinds, in one "it resembled that of a man under the influence of drink, the words being broken up into syllables, and each syllable articulated with some difficulty and hesitation, and in a more or less thick or husky tone."

The temperature from the first day rises gradually, attaining the maximum on the second, third or even fourth day." The natural course of the fever is that of morning remission and evening exacerbations with a difference of 1 to 2 degrees.

Much of interest will be found under the head of Delirium from which we quote the following:—"Some patients used to show a peculiar fondness for a particular bed, either that of a neighbour or of some patient at a distance, and would get out of their own bed and try to lie down beside the other patient, doing so quietly, or in the act falling heavily on the occupant. Another patient would fancy no better position than lying underneath sombody else's bed. In one instance a strong, powerfully built man climbed up one of the iron columns supporting the roof, and was only brought down with great difficulty."

We regret that space does not permit of our giving this valuable Report in greater detail. We can heartily congratulate Khan Bahadur CHOKSY on an excellent piece of work, to which we recommend all readers interested in this important subject.

The Report is very well got up, it extends to 57 pages, and has a number of clinical charts attached. It is printed by the *Times of India* Press, Bombay.

HERNIA.

WHILE admitting the value of operative interference in hernia, C. F. SOUDER favors injecting the site with 2 to 4 minims of a mixture of Zinci Sulph. grs. ii, Creosote mtii, Fl. Ext. Hamamel mxxx, and Glycerine mxxx, for which he claims the following advantages over operation: (1). Simplicity, safety and efficiency. (2) Anæsthetics and laying up not required (3) Quicker and much larger percentage of permanent cures, and incurable (?) cases can be made comfortable, obviating risk of strangulation. (4) No mortality. (5) Size and duration make no difference, and in simple cases one injection suffices.—*Medical World.*

COMMENTS AND NEWS.

FORCIBLE STRAIGHTENING OF THE SPINE.

AMONGST the most startling of recent innovations in surgery is the new method of forcibly straightening the spine for the cure of Pott's disease, upon which an interesting discussion was recently held by the Clinical Society of London.

Dr. P. REDARD (Senior Surgeon to the Parisian Office Dispensary, Paris) contributed a paper in which he states:—"I am a warm partisan of the immediate reduction at one sitting of the curvature in Pott's disease in certain cases. My practice of this operation during the past year, amounting to 40 cases, has convinced me that this method, employed with prudence in proper cases, is practical, efficacious, and exempt from danger. All cases of curvature in Pott's disease are not amenable to immediate reduction. Only those curvatures can be corrected without danger in which reduction is easy, or comparatively easy, by slight traction applied to the two extremities of the spine, or by slight direct pressure applied to the boss itself. The correction of irreducible ankylosed curvatures exposes the patient to serious complications, and is not to be recommended. Immediate reduction is indicated in reducible curvatures of limited extent, short radius, and rapid development, also those complicated by paraplegia of rapid onset. Duration of existence, size, and extent of the curvature are not to be regarded as contraindications. The only contraindications, in my opinion, are irreducibility with the employment of moderate force or traction, a bad general state of health, generalised tuberculosis, visceral disease, and large cold abscesses."

He employs an apparatus by which the tension is made gradually by means of a screw. Chloroform is, as a rule, unnecessary.

"After reduction I employ a plaster corset, including both the trunk and the head. The plaster bandages are usually applied directly to the skin, but in some cases a jersey or a very small quantity of wool is used. My experience has taught me that a large quantity of wool applied to the trunk beneath the plaster is unfavorable to the safe retention of the spine in position, may result in a redevelopment of the deformity, and exposes the patient to the danger of pressure sores over the angle of the boss if this be not fully reduced. If the plaster corset is well applied, the spine is held in good position, and the cephalic portion of the apparatus may be omitted, especially in lower dorsal and lumbar curvatures. In the whole number of forty cases of varying duration and severity that I have treated, no complication, either immediate or remote, has been noted, and I have observed many severe cases in which definite correction of the deformity has been obtained. Prolonged immobilisation in good position in a corset of plaster-of-paris after the reduction of the deformity, is absolutely favorable to the cure of the disease."

These roseate views are not held by other surgeons.

WATSON CHEYNE acknowledged that the immediate effects were not so serious as he would have expected, but added the following objections:—"The forcible straightening of a tuberculous joint was apt to give rise to general tuberculosis, and the lighting up of acute local inflammation. A cure could not be said to have taken place in these cases of straightened spine until (1) the tuberculous bone disappeared or became encapsuled, and (2) bony ankylosis followed, which was not to be relied upon. Until then, these patients were not out of the wood. Ankylosis was a slow process, and probably took two years for its accomplishment in many

cases. Cartilage must be left in front of the spine by the straightening, which must be filled with blood clot, fragments of bone, and cheesy material. These conditions would not encourage the formation of new bone; and the vascularisation of that bone must be (theoretically) imperfect. Would ossification occur between the bodies of the vertebræ? Most surgeons would answer that question in the negative. In tuberculous disease of bone one found very little new bone between places around the infected area."

That these objections are not merely theoretical is well shown by two cases published by R. W. MURRAY, F.R.C.S., of Liverpool.

In these cases death occurred in the first 51 days after operation from pneumonia, and in the second 87 days after operation from meningitis.

It was shown post-mortem that there was not the smallest evidence of repair, in the first case the gap formed by the straightening had resolved itself into a "false joint" bounded by caseous and diseased tissue; in the second there was no attempt at the filling in of the gap.

Most surgeons will be inclined to agree with the opinion expressed by WATSON CHEYNE, that this new method of treatment was not likely to come into general use in cases of spinal deformity.

"It was now on its trial, and should at present be used in a very limited number of cases. Enough had already been done to enable them to form an opinion when the results would be known some two years hence Meanwhile, let them avoid further operations, for the patients' good, and for the good reputation of themselves and of surgery."

THE SECRET OF SEX.

PROFESSOR SCHENK, of Vienna, who claims to have discovered the secret of the production of the sexes, has given the following interesting particulars, in an interview with the London correspondent of the *New York World*

In reply to an enquiry if he could give positive and direct information regarding his treatment of women desirous of giving birth to boys, he said —

No, I cannot do that, I gave the treatment under seal to the Imperial Academy of Sciences in Vienna, where it will be proved and published. But I can communicate to you the results of my discovery, and give you the scientific facts upon which it is based.

If I say I can determine the sex of a child to be born, you must understand this. I can ensure that a woman gives birth to a boy, not to a girl, my treatment has no other aim than causing boys to be born.

It is my own choice that by my marriage I have had six sons. I have achieved similar results in the families of relations and friends—fourteen cases in all I cannot trust every strange woman I see, I must be able to watch her and be certain that my prescriptions are rigidly obeyed.

According to my discovery, the man has no influence whatever on the sex of the child. All depends upon the woman.

My discovery is based upon the scientific fact that the blood of a grown-up man contains five million blood corpuscles, while the blood of a woman contains only four million. This difference is the basis of the difference of sex.

This proportion is observable in the slightest quantity of blood from a man or woman. All my efforts are directed towards producing the right number of blood corpuscles required by the male in embryo. I have succeeded in attaining this effect by suitable nourishment of the woman."

In reply to a question, writes the *Medical Times and Hospital Gazette*, the Professor said:—"I am no man of business, but am exclusively a scientist. I am not anxious to gain a fortune, but shows all that my discovery be scientifically confirmed and recognised. The Academy of Sciences alone can do this. I have accepted no reward in the successful cases I have treated; they are precious to me beyond gold as proofs of the reality of my discovery. I have achieved such success in a family in which all the most intense desires were directed towards the birth of a son. If I told you the name of the man in question you would know that for him to pay me 20,000 florins for my service is the same as when you pay the doctor five florins for examining your throat, but I did not accept any reward."

There is only one public personage in Austria to whom all these indications point. He is a member of the Imperial house—Archduke FREDERICK, nephew of old Archduke ALBRECHT, at whose death three years ago, he inherited the colossal entailed property, because Archduke ALBRECHT left only one daughter and no son. The property consists of extensive land, forests, mines, of ironworks, and factories, well known to be worth more than 100,000,000 florins. Archduke FREDERICK during ALBRECHT'S lifetime lived upon his allowance. In 1878 he married a portionless Princess, who had since given birth to eight daughters, one of whom died. At every birth a son was anxiously expected Every medical authority was consulted, and all remedies were applied; the Princess was treated with every care, but all in vain. Every fresh birth brought another girl. In 1895 Archduke FREDERICK became the possessor of an enormous fortune, for which he had no heir The Princess was resigned to her fate The Prince could not hope to leave the property to a son. Imagine his joy when, in July 1897, after nineteen years of married life, the Archduchess, in her forty-first year, gave birth to a son and heir! It is undoubted, from the nature of Professor SCHENK'S words, that he was consulted by Archduke FREDERICK, and undertook the treatment of the Archduchess, which he supervised with complete success.

SUB-SOIL AND DISEASE.

IN continuation of the remarks on this subject in our last issue, we give the following very apt illustration from the *Times of India*.—"A good many people in Bombay are awaiting with interest the report of the Committee of the Corporation on the sub-soil water question. Meantime, those who attribute our insanitary troubles largely to a polluted and rising sub-soil water will find confirmation for the belief in a remarkable paper on the history of typhoid fever in Munich, which was lately read by Dr CHILDS before the Epidemiological Society, in which what looks like a very close connection was established between soil pollution and typhoid. Munich has had a bad record in regard to this particular disease. The mortality from it fell in successive decades since 1850 from 202 per 100,000 inhabitants to 148, 116, and 16 in 1880, when epidemics of typhoid ceased in Munich, and in the last three years there have been only 3 cases per 100. The first impulse on a view of these figures is to attribute the marked improvement to improved water-supply. But the sanitary conditions and history of Munich warrant no such inference. In the severe typhoid epidemic of 1865, the population supplied with pure water from the mountains suffered as badly as those who drank from the old wells, and in 1884 the twenty thousand people who still used the old wells suffered no more than those who drank from the public pipe-supply. The improvement is attributed to the improved conditions that were brought about when orders were given for every cesspit in the city to be lined with cement. The sub-soil conditions of the city have by

the [illegible] subsoil water of Munich, which is comparatively pure in the [illegible], became greatly polluted in the [illegible] and [illegible] though its quality improved [illegible] by percolation through the gravel bed of the [illegible] Munich, the soil, in Dr. CHRISTY's words, has "healed itself" by [illegible] improvement in [illegible] that the mortality [illegible] has gradually brought about, is regarded by an authority as PETTENKOFER as the real source for the marked diminution in typhoid. We have everything to learn about the sub-soil water of Bombay—although it is highly improbable that we shall learn any good of it—but the experience of Munich warrants us in a careful search in that direction for at all events a contributory cause of our sanitary troubles."

There can be no doubt that the first essential for a healthy house, or for a healthy city, is a healthy sub-soil, and it is nothing short of a scandal to modern sanitation and modern medicine, that this point does not receive more attention.

THE GOVERNMENT OF INDIA AND LAND QUARANTINE.

THE measures at present in force for checking the spread of plague from Bombay are probably as complete and satisfactory as can possibly be expected; what they virtually amount to is, that no one can leave the city without undergoing ten days' detention under observation.

Under such measures the rest of the country enjoys a certain sense of security.

The Government of India has, however, expressed views on the subject, which, if put into force, will do away with the Bombay precautions, and also, we fear, with that limited sense of security we at present enjoy.

It is well known that in England for many years quarantine of every description has been condemned, as unscientific, and what is even worse as impracticable; the rest of Europe [illegible] following in the same direction as is plain from the rule laid down by the recent conference held in Venice, that "land quarantine will no longer be enforced." From all this it follows that only the persons actually suffering from plague should be detained, while the remainder of the population of any infected area can travel in any direction at their free will and pleasure.

Now such ideas may be very well for England or even for the Continent, but however scientific and up-to-date they may be, it does not follow that they are suited to such a backward country as India.

The chief factor of danger in India is the tendency to conceal the disease. This has not to be reckoned with in England, and it at once places the two cases on a different footing.

Further, it must be remembered that England has taken the lead in this matter, under the belief that her sanitary condition is sufficiently perfect to resist the invasion of disease; while in this country we are painfully aware that such is not the case. We have been invaded, and the invader has obtained a firm footing.

With regard to continental nations, their ideas of doing away with quarantine are quite new, and it would be interesting to see how long their new found belief would last if the plague once firmly established itself on their shores.

Should these ideas be adopted in India, we fear that the worst results will follow.

THE CHEMICAL EXAMINER TO GOVERNMENT SHOULD NOT HOLD A [illegible]

THE post of Chemical Examiner to Government is one of the most officially important [illegible] of the judicial administration of any country. For often the delicate balance of life and death [illegible] of the incumbent of this [illegible]. To the integrity of his character, to the [illegible] of his judgment and opinion [illegible] biased condition of his mind, cases of necessity [illegible] the sifting of the truth or falsity of [illegible] legal nature submitted to our courts of law for [illegible] cases. On his dictum hangs the fate of the accused for the prison cell or the gallows. Such a man should ever remain neutral in his position as it affects society. The nature of his office and of its solemn and sacred functions emphatically demand that this should be so. It should not be possible for a gentleman holding the position of a Chemical Examiner to Government to be brought into conflict with the opinions of his medical brethren or the public in matters outside his important official duties. He should stand clear of every form of antagonism or party spirit or strife or ill-feeling. He must do so, or being human, he must be guided or misguided by sentiment, and some day or other, his official opinion may be tainted by prejudice and be used as a weapon of injustice. We claim that our remarks are fully justified in view of the fact that the present Chemical Examiner to the Bengal Government has assumed the duties of Editor-in-Chief to the *Indian Medical Gazette*, and we claim that the position is a false and compromising one for such an official to hold. We therefore demand in the public interests and for the security of the judgments of such law courts, in which the opinion of the Chemical Examiner is resorted to, that such official be interdicted from filling any office outside his own important duties, as would inevitably compromise his position.

SCIENTIFIC WORK IN INDIA.

OUR contemporary, *Nature*, in a recent issue, refers to the urgent need that exists for further facilities for scientific investigation in India. Matters, it continues, "are continually arising which ought to be made the subjects of systematic inquiry, but at present the means for carrying out such investigations are altogether inadequate to the wants of our great Indian Empire." These observations were drawn forth by a letter from Surgeon-Captain A. E. GRANT, who writes from the Hygiene Laboratory of the Medical College, Madras, stating that several well-ascertained examples of poisoning from diseased or improperly-prepared kodo millet (*Paspalum scrobiculatum*) occurred during the past year in India. He believes it to be probable that, owing to the prevailing scarcity of the usual food grains, kodo millet has been extensively sold and eaten in localities where its use is ordinarily unknown. While recognising the great importance, both from the hygienic and the economic point of view, of making an investigation into the matter, Surgeon-Captain GRANT has despairingly to admit that he sees no prospect of being able to find time to carry through such an investigation. He therefore writes to offer to supply adequate samples of the grain to any investigator in [illegible] or elsewhere who has the necessary leisure and facilities for work of this sort. It is obvious, however, that such work ought to be carried on under the auspices and at the cost of the Government of India in a properly-appointed [illegible] institute. The incident forms another argument in favor of the early organisation of such an institute. The Government of India makes efforts which excite the [illegible] and [illegible] of the world to remedy evils already [illegible], but it does not

[illegible]

[illegible] QUESTION [illegible]

[illegible] to have [illegible] the officers of the [illegible] the late deputation [illegible] LANSDOWNE, [illegible] Secretary of State for [illegible].

[illegible] the deputation [illegible] influential one, and [illegible] in which it was received was altogether sym[illegible] satisfactory, but [illegible] the result we are not [illegible].

[illegible] questions which now dominate the situation are; (1) The amalgamation of the officers of the A.M.S. and the [illegible] of the Medical Staff Corps into a united corps; (2) rank and titles.

Regarding these questions Lord LANSDOWNE said:—"As to the formation of a medical corps, I for one would see no serious objection to the proposal, but it is intimately connected with the other proposal, which does present very serious difficulty."

"I on my side am inclined to make you an admission, which is, that I regard the present titles of the medical staff—certainly some of them—as extremely cumbrous and inconvenient. I have the keenest sympathy with anybody who has the misfortune to designate himself Brigade-Surgeon Lieutenant-Colonel. I do not think it ought to be beyond our power to discover some designations which might, at all events, be less open to objection than the present compound titles. But these questions of rank are extremely difficult and complicated questions."

Now this does not look like a speedy and satisfactory solution of the title question.

Previous experience has not taught us to place much reliance upon the imaginative powers of the War Office when the question is one of titles for medical officers.

NEW SURGEONS FROM THE ARMY MEDICAL SCHOOL, NETLEY.

THE following is the list of surgeons on probation of the Medical Staff of the British and Indian Army who were successful at both the London and Netley examinations:—

ARMY MEDICAL SERVICE.

	Marks.		Marks.
*H. C. R. [illegible]	5,[illegible]	A. H. O. Young	[illegible]
[illegible]	5,090	[illegible]	[illegible]
[illegible]	4,756	[illegible]	[illegible]
[illegible]	4,610	A. [illegible]	[illegible]
[illegible]	4,241	[illegible]	[illegible]
[illegible]	4,128	[illegible]	[illegible]
[illegible]	4,069	[illegible]	[illegible]
[illegible]	4,[illegible]	[illegible]	3,129
[illegible]	4,080	C. [illegible]	3,796

INDIAN MEDICAL SERVICE.

	Marks.		Marks.
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	5,610	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	4,760
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	W. [illegible]	4,112

[illegible] Clinical [illegible] Work.

[illegible]

[illegible] Medal.

[illegible] PLAGUE [illegible] AT BOMBAY.

[illegible] of the 136 cases [illegible] their infection after sunset, and [illegible] of them kept [illegible] within doors [illegible] were females [illegible] door [illegible]. Then of the 136 cases who died [illegible]. From 11 to 20 [illegible] to have [illegible] susceptible age, yielding 37 cases, while the next [illegible] accounts for 34 and from 31 to 40 for 30, while [illegible] Or in other words, nearly 77 per cent. [illegible] at those ages when their studies or work would [illegible] remaining indoors during the hours of [illegible]. The second and third day after infection [illegible] the highest mortality, while perfect recovery was not [illegible] after the 26th day of illness, and the right thigh was the commonest seat for the bubonic eruption, yet there were 10 cases, some fatal, in which buboes did not accompany the other symptoms of plague.

IMPORTANT LEGAL DECISION.

A CASE of great importance to the medical profession has lately been decided in the Greenwich County Court by Judge ADDISON. Dr. WALTER SCOTT had been engaged to attend Mrs. PARRVE, the wife of a labourer, in her confinement. She subsequently, without informing him, engaged and was attended by another practitioner.

Dr. SCOTT sued her to recover his fee of 15 shillings. The decision of the court was however against him.

The judge held that the medical man could not charge for work he never did, and that "notwithstanding an engagement, the doctor would have been free on the date of its fulfilment not to have done so had he chosen and the person who had engaged him would have had no claim against him."

Thus according to Judge ADDISON, a doctor's engagement is binding upon neither of the parties to it. The woman may, according to her caprice, send for some one else, or the doctor may take himself off on a holiday, probably the doctor is the one who will suffer least from such a decision, were he to act upon it.

To the credit of the profession, however, they regard such engagements from a higher standpoint than the mere legal one, with the majority they amount to a moral obligation. This is no doubt the view that will be approved of by the public, and the only pity is that the Law has not attained the same high standard.

THE CORONERSHIP OF CALCUTTA; AN OFFICIAL MISTAKE.

DR. E. W. CHAMBERS, for many years H. M.'s Coroner for Calcutta, has under compulsion retired from this onerous and important judicial office under the 55 years rule, and his place has been given to a Mahomedan magistrate. We cannot resist the opinion that the change is most [illegible]. Under no circumstances should any one but a medical man hold the position of Coroner. The new incumbent may be a good lawyer and a good magistrate, but none except a doctor should fill a distinctly medical post. There is one thing to be said about the appointment. The salary is not worth having, and the wonder is that a gentleman of Dr. CHAMBERS'S high professional attainments and extensive practice ever accepted the office. No other medical man of position, we believe, would be found to

take the Chairmanship unless the Incumbrance attached to it were done away with. We believe we are not singular in our opinion when we say that the Coroner should not be a magistrate, for both these functions must of necessity suffer by the union in either office. The ends of public justice and the safety of human life from the many insidious forms of homicidal felonies, demand a change in the present arrangements of the Chairmanship of Calcutta. We hold that the Coroner should be a medical man, and we further maintain that the Coroner should not hold dual office.

TOTAL EXTIRPATION OF THE HUMAN STOMACH: RECOVERY. A UNIQUE CASE.

DR. CARL SCHLATTER, at Zurich, in Switzerland, on the 9th September 1897, completely removed the stomach from a woman aged 36 years, for malignant disease. We have information that on 9th December 1897, three months afterwards, the woman was alive and well, that she had gained weight, that her appetite was good, that she relished her meals, that her taste was unimpaired, and that her bowels acted normally once in twenty-four hours.

On the removal of the stomach, the continuity of the alimentary canal was restored by stitching the œsophagus to the jejunum.

This certainly is a wonderful result, and it is difficult to say whether it is more wonderful from a surgical or from a physiological aspect.

Many will learn with surprise that it is possible not only to live without a stomach, but even to eat, drink and be merry, to feel hungry and even to vomit.

Vomiting without a stomach is certainly a novelty.

As regards digestion, we learn that the albumins of the food could be digested without the aid of the gastric juice. From all this it is obvious that the importance of the stomach and its digestive functions have been hitherto rather overrated.

PLAGUE IN BOMBAY.

THE *Times of India* gives the following as the plague mortality of the nine weeks of the present epidemic contrasted with the mortality of the first nine weeks of the previous epidemic :—

1897-98.		1896-97.	
Week ending 14th Dec.	95	Week ending 20th Oct.	81
„ 21st „ ...	158	„ 27th „ ...	119
„ 28th „ ...	300	„ 3rd Nov.	159
„ 4th Jany.	302	„ 10th „ ...	120
„ 11th „ ...	450	„ 17th „ ...	187
„ 18th „ ...	651	„ 24th „ ...	238
„ 25th „ ...	884	„ 1st Dec. ...	253
„ 1st Feb. ...	927	„ 8th „ ...	456
„ 8th „	1,114	„ 15th „ ...	777

This table shows the degree of strength of the disease in the two epidemics. The number of plague deaths in the nine first weeks of the last plague was 2,890, while those in the same weeks in the present plague have amounted to 4,780. The present epidemic is therefore twice as severe as the epidemic of last year. It adds, it is as strange as unexpected that the low caste, or no caste, Hindus should exhibit such a comparative freedom from plague as they do. With a population of 45,169 their plague deaths have been only 49, or only about two-thirds of the Jain deaths.

Only two Europeans have died of plague in the present epidemic.

MOFUSSIL PLAGUE STATISTICS.

THE returns for the Presidency for the week ending February 11 give the following results :—Surat District—190 cases, 186 deaths; total 4,910 cases, 3,841 deaths. Thana District—33 cases, 25 deaths; total 4,930 cases, 3,[illegible] deaths; Poona District—57 cases, 51 deaths; total 11,288 cases, 8,650 deaths. Satara District—120 cases, 116 deaths; total 14,196 cases, 11,051 deaths. Nasik District—51 cases, 44 deaths; total 1,838 cases, 1,246 deaths. Sholapore District—196 cases, 166 deaths; total 2,388 cases, 2,167 deaths. Ahmednuggur District—39 cases, 29 deaths; total 811 cases, 614 deaths. Khandeish District—43 cases, 14 deaths; total 188 cases, 121 deaths. Kolaba District—64 cases, 38 deaths; total 1,461 cases, 1,256 deaths. Belgaum District—40 cases, 38 deaths; total 976 cases, 803 deaths. Dharwar District—5 cases, 3 deaths; total 156 cases, 128 deaths. Dharwar District—3 cases, 2 deaths; total 49 cases, 45 deaths. Baroda Territory—188 cases, 130 deaths; total 1,533 cases, 1,181 deaths. Palanpore—32 cases, 26 deaths; total 1,515 cases, 1,002 deaths. Kolhapore and Southern Mahratta Country—57 cases, 46 deaths; total 528 cases, 374 deaths. Rhor State—1 case, 1 death; total 34 cases, 19 deaths. Aundh State—21 cases, 13 deaths; total 886 cases, 598 deaths. Cutch—35 cases, 18 deaths; total 6,762 cases, 5,800 deaths.

MODERN HYGIENE AND THE PLAGUE

SAYS the *Times of India*.—"When the story of the Bombay plague visitation comes to be written, it will be something more than a mere melancholy chapter in the history of the human race. Terrible as the mortality undoubtedly is, humanity may yet be allowed to make a serious comparison with the past; and if this be done, it must be admitted that medical skill and a knowledge of the true principles of hygiene and sanitation are forces to-day which exercise a marvellous influence over the destinies of communities. For the scientific and reflective portion of mankind the foregoing proposition requires little demonstration, but people do not always stop to reflect, criticism has no difficulty in making itself heard, and pessimism too often it may be refuses to look beyond the shadow of to-day. While the relative efficacy of segregation, or of quarantine, or of inoculation or disinfection may still afford matter for differences of opinion, the broad question whether man to-day is better able to combat the ravages of plague than heretofore can be answered not only in the affirmative, but it can be answered in a manner which may well make each worker in plague suppression feel that, amid the weariness of continued effort, he is an agent on the path of progress.

BAD MANAGEMENT ABOUT THE ENGLISH PLAGUE DOCTORS.

THERE appears to have been a slight hitch in the working of the arrangement by which the medical men appointed by the India Office for special duty in connection with the plague are being distributed to their respective posts in the Bombay Presidency. Most of these gentlemen, as is well known, have distinguished themselves in various branches of medical research, and as thoroughly qualified specialists it might reasonably have been expected that their services would have been requisitioned by the Bombay authorities almost on the instant of their arrival. So far is this from having been the case, that for a number of days the specialists who landed from the mail steamers week by week were kept dangling attendance in Bombay finding no preparations, and apparently no immediate occasion for their services. Even at the present moment a considerable number of them remain in Bombay in a state of enforced idleness. This is especially hard on them as they were in the majority of cases called upon to leave England at exceptionally short notice, which in one instance extended only to two days.

ARRIVAL OF PLAGUE DOCTORS AND NURSES.

The mail steamer *Pundooloor* which arrived in Bombay last Saturday, brought the following doctors for plague duty :—Miss (Dr.) Alice M. Cornhera, Miss (Dr.) T. Christie, Drs G. L. Blackmore, R. Horpatuck, R. Laing, H. D. N. Mackenzie, William A. Justice, C. F. Parsons, G. H. Smith. The lady nurses are :—Miss. M. E. Pearse, and the Misses M. L. Barrow, L. Foales, C. A. Brown, M. Campbell, Maud Murphy, E. H. Greening, Jane Ann Evans, Alice Richardson, Ellen Smith, Jane Snowdon, Alice Bulkley, Emily E. Bradshaw, E. Kiley, Frances Fry, Blanche S. Wood, Katie Cruickshank, Dorlinda B. Hyland, Hilmer Scott, E. M. Gardner, M. Hodges, E. Grieveson, M. E. Harvey, M. E. Chick, and E. L. Bleaney. The newly-arrived doctors and nurses will be allowed an opportunity of studying plague in the different plague hospitals in Bombay before any arrangements are made for their distribution in Bombay and in the mofussil.

PLAGUE IN THE DECCAN : DOCTORS URGENTLY NEEDED.

From the latest reports to hand, it appears that the plague has attacked several villages in the Beder and Gulburga districts, and the situation is now considerably worse than before. Cases have broken out in Ajunta and Aurungabad, where the police are insufficient to enforce the plague measures. Three hundred troopers of the Hyderabad Contingent from Aurungabad will be placed on plague duty to protect the Nizam's frontier and also to search the country forty miles around. The Plague Commissioner has applied for the services of Captain Armstrong, 3rd Madras Lancers, as Secretary, on the score of the increase and heaviness of the work. Ganjote, Umergh, and two other villages in the Nuldroog district show a daily mortality of six cases. In some villages, the people repudiate all idea of plague, even when it has actually been discovered. There is a great demand in Hyderabad for medical men prepared to go on plague-duty.

TANNING IN INDIA

In reviewing the huge dimensions attained by this industry in India, whence over forty million hides are annually exported to Europe and America, *Capital* points out that, though the trade admits of further development on a larger scale, there is a popular fallacy of the superiority of English to Indian leather, which leads to people paying a better value for the former. Tanning materials are plentiful in India, who exports a large quantity of them to England, and it stands to reason better results are obtainable from the *fresh* article than from the same article *after* dryage and deterioration by the export voyage. Recent comparative experiments made in England proved to the full that artillery harness made at Cawnpore, N.-W. P., from Indian leather was much stronger and lasted longer than the same made in England from home-produced leather. While Cawnpore is *the* centre of a very great leather industry—still however in its infancy—Madras is far to the front in the foreign export trade in tanned hides and skins, for which she indents largely on the other provinces, as Southern India produces an enormous quantity of superior tanning barks.

THE YUNANI MEDICAL SCHOOL AT DELHI.

The above school appears to be gaining ground under the principalship of Hakim Abdul Majid Khan. It started in 1889 with 70 pupils, to 45 of whom it has granted diplomas of fitness, and it now numbers 190 Mahomedan and Hindu students, who are intended to supplant the untrained hakim class and to revive the nearly defunct (through neglect of ancient arts and sciences in the crase for novelty) system of medicine that earned high laurels in the wars of the Crusaders and flourished during the reign of the Mogul Emperors. In addition to theory the students have a practical training of 2 to 5 hours daily, during which they see between 300 and 400 patients, most of whom are treated gratuitously. In appreciation of the good this institution is doing for Delhi, the Municipal Committee have suggested 40 a monthly grant of Rs. 100, which His Highness the enlightened Nawab of Rampur has supplemented with a donation of Rs. 5,000 and a grant-in-aid of Rs. 100 per mensem.

THE LATE DR. R. C. CHANDRA'S WILL AND THE PROBITY OF HIS HINDU RELATIVES.

Surgeon-Major R. C. Chandra, M.R.C.S. Eng., L.R.C.P. Lond., L.M.S., was a native Christian, converted and baptised at Duff College, Calcutta. He was a successful physician and professor of materia medica. He married a sister of the present Lord Chancellor, the Earl of Halsbury. He died childless. His wife died shortly before him. At his death it was discovered that he made a will by which he left £500 to the Scotch Mission General Fund and £300 to the little church in Calcutta in which he often worshipped. This will, however, was not signed, and therefore the whole of his property went by law to his unconverted Hindu relatives. The mission authorities resigned all hope of the intended bequests. Remarkably strange, for relatives under such circumstances, and immensely creditable for non-Christians, the Hindu relatives loyally and faithfully carried out Dr. Chandra's wishes. They have made over the sums of money bequeathed to the Mission. All honor to the Hindu Community for such an act of moral probity.

CAN REFUSE TO SELL COFFINS.

In the suit Renwster *vs* Miller the Court of Appeals Kentucky decided that an undertaker is not bound to furnish articles necessary for burial, when the person asking for the same is indebted to him for previous services, and it also holds that it is not unlawful for undertakers to afford mutual protection against such persons by associating themselves together, and agreeing to refuse to render a like service to one who has refused or failed to pay such expenses in the past to some member of the Association The Court, moreover, rules that any one has a perfect right to decline to enter into a business undertaking with anyone. This may seem well enough, but supposing that by some Act of God the person indebted for burial services is rendered insolvent and unable to fully discharge his first obligation when a second member of his family dies, will the State dispose of the cadaver and levy the costs 'by distress' on an already over-distressed person, or will the corpse be left unburied till its living relatives can raise the funds to inter it?

DEATH OF A VETERAN MEDICAL MISSIONARY.

We much regret to record the death on the 13th February of the Revd. Peachy T. Wilson, M.D., of the American Episcopal Methodist Church at Sitapur. He was born in Kentucky, U. S. A., in 1832 and entered upon mission work in Oudh in 1863, with a sturdy band of workers, of whom Bishop Thoburn, Revd. I. H. Messmore, and a few others are still remaining in the field. He graduated M.D., in America in 1877 and did valuable and noble work as a medical missionary. Medical missions in India are a very pronounced success and there can be no doubt that men of the stamp of Wilson, the Neves, Huntly, Valentine, and others who are now at their great and noble task of missionising India, are an inestimable source of blessing to thousands of the suffering poor of India, while their holy calling is greatly enhanced by their power and ability to administer to the ailments of the body, as well as to point to the Source of all spiritual comfort and peace.

[illegible] SEDITION BILL.

[illegible] of the [illegible] will find [illegible] the domiciled [illegible] of the Viceroy [illegible] and [illegible] of the [illegible] community [illegible] of the community, (1) [illegible] Empire, and (2) [illegible] (a) obtain suitable representation [illegible] Provincial [illegible] Councils of Government, and (b) to nullify the action of the Viceroy's Council in [illegible] to the Sedition Law in order that the new sections be not forced upon the country in defiance of public opinion. Could not a public meeting of the European community be held at once to give effect to these two propositions? Unquestionably the occasion is an opportune one for an expression of disapproval of the action of our rulers in India, and also for an emphatic demand for representation by the non-official European community in the Government of the country."

LADY DOCTORS IN GREAT REQUEST.

In the report for 1897 of the Madras Branch of the Countess of Dufferin Fund, the Secretaries remark:—"It will be seen that what may be called the backbone of the whole Dufferin Fund scheme is medical tuition. We cannot get on without medical women; their numbers are limited, and we have to bear in mind that those who get married, as a rule, fall out of the ranks of workers. The duty of the Fund, then, so far as medical tuition is concerned, will be to keep the subject before every Local Fund Board and Municipal Council and every native gentleman, until every large town and Native State are supplied, or until they recognise their duties so far that our reminders are unnecessary. This period may, we can only trust, be not far off; with its advent the main work of the Fund will happily cease to exist."

THE RESTRAINED LIBERTY OF THE PRESS.

The now famous Sedition Bill, conceived and born of Mr. Chalmers, of the Viceroy's Council, was made law on the 18th February 1898. By these new sections of the law high officials are armed with autocratic power to gag their non-official critics, and henceforth India is to be ruled by new and un-English ideas of "justice." The voice of the people was unanimous against this measure, but what is the opinion of the whole body of the domiciled non-official British community and the millions of India's people against the supreme and unfettered will of our beloved Queen Empress' Regent in India? *Apparently nothing.* Wait and see, the voice of free England rules India, and a short time will soon prove the unwisdom of our rulers in this matter.

THE CEYLON MEDICAL SERVICE.

Says the *British Medical Journal*:—"Surgeon-Major Allan Perry, who retired recently from the Army Medical Staff, has been appointed Principal Civil Medical Officer and Inspector-General of Hospitals, Ceylon, in succession to Sir William Raymond Kynsey, C.M.G. Surgeon-Major Perry served for [illegible] years in Colombo and Kandy, and his return will be welcomed alike by the public in Ceylon, and by the members of the Medical Service. It is believed that his appointment will give an impetus to the study and [illegible] of [illegible] in the island, as he is known to have given special attention to this subject."

[illegible] ASSOCIATION.

[illegible]

[illegible] Otto, [illegible]

[illegible]

Chintaman Hari Gokhale, [illegible]

[illegible] Richardson [illegible] Aden.

George [illegible] Doyle, M.B., [illegible]

[illegible] Basu, [illegible] N.W.P.

H. V. Dewey, Assistant Surgeon, No. [illegible] Field Hospital, Landi Kotal.

W. J. Corridon, Assistant Surgeon, No. [illegible] Field Hospital, Landi Kotal.

W. H. Thighthorpe, Assistant Surgeon, No. 3, B. Field Hospital, Landi Kotal.

R. C. Bedell, Assistant Surgeon, No. 3, B. Field Hospital, Landi Kotal.

K. Krishnaiengar, C.M.S., Yelandur Jaghir Dispensary, Mysore.

Teghall Khan, C.M.S., Camp Khar, Malakand.

Syed Ahmad Husain, C.M.S., Camp Khar, Malakand.

John Reid, Surgeon-Lieutenant, S. A. S., Subathu.

NEW MEMBERS OF THE INDIAN MEDICAL ASSOCIATION PROVIDENT FUND.

The following have joined the I. M. A. Provident Fund as Associate members since our last issue:—

J. A. J. Ozehan, Assistant Surgeon, Hyderabad Cantonment, Raichur Cantonment, G. I. P. Ry.

Ignatius Chaves, Assistant Surgeon, Station Hospital, Aden.

Devindra Singh Otto, Civil Assistant Surgeon, on Plague Inspection duty, Jhansi.

Chintaman Hari Gokale, C.M.S., Balegaon, Wun District.

W. W. Ashe, M.D., Mission Dispensary, Pauri, Garhwal.

H. V. Dewey, Assistant Surgeon, No. 3, B. Field Hospital, Landi Kotal.

William James Corridon, Assistant Surgeon, No. 3, B. Field Hospital, Landi Kotal.

G. Sheik Mohiedin, G.M.M.S., Civil Surgeon, Parbhani.

Syed Ahmad Husain, C.M.S., No. 50 N. Field Hospital, Swat Moving Column, Camp Khar, Malakand.

John Reid, Surgeon Lieutenant, S. A. S.; Station Hospital, Subathu.

Teghall Khan, C.M.S., No. 50 N. Field Hospital, Swat Moving Column, Camp Khar, Malakand.

THE PASTEUR FILTER IN TROUBLE.

A correspondent writes:—"The Pasteur filter in Darjeeling is giving trouble. It [illegible] to give the required supply, and it is said [illegible] filtered and unfiltered water mixed; and [illegible] circumstances, as if the labor [illegible] expense fruitless to somebody. [illegible] incurred any of the latter, [illegible] of the contract are complied with, I hope [illegible] do so."

THE SMOKE NU[illegible]

The Chairman of the [illegible] declares in his Annual [illegible] of this growing evil, [illegible] It is [illegible] ever increasing in number, [illegible] the [illegible] of [illegible] the [illegible] of [illegible] for it to be [illegible]

BOOKS FOR THE LONDON M.B. EXAMINATION.

The following text-books for the M B. London Examination are in general use by candidates preparing for the M B. Examination for the University of London: Either Fagge's *Principles and Practice of Medicine*, or Osler's *Principles and Practice of Medicine*, Erichsen's *Art of Surgery*, Green's *Pathology*, edited by Montague Murray, and Sims Woodhead's *Practical Pathology*, Galabin's *Midwifery*, and Lewers's *Diseases of Women*. The special subjects are dealt with in these text-books sufficiently for the purposes of the examination. We would advise Greig Smith's *Abdominal Surgery*, edited by J. Swain, W. H. A. Jacobson's *Operations of Surgery*, *Skin Diseases*, by Malcolm Morris, *Tropical Diseases*, by A. Davidson, and *A Practical Treatise on Urinary and Renal Diseases*, by Sir William Roberts.

BOOKS OF D.P.H. EXAMINATION.

The books most generally read by candidates for the Diploma in Public Health of Cambridge University are Whitelegge's *Manual of Hygiene*, Wilson's *Hand-book of Hygiene*, Wynter Blyth's *Manual of Public Health*, Louis Parkes's *Hygiene and Public Health*, Notter and Firth's *Theory and Practice of Hygiene*, Wanklyn's *Water Analysis*; Smith's *Laboratory Text-book of Public Health*, Kenwood's *Public Health Laboratory Work*, Balfour Stewart's *Elementary Physics*, Muir and Ritchie's *Manual of Bacteriology*, Crookshank's *Manual of Bacteriology*, Corfield's *Dwelling Houses*, McVail's *Vaccination Vindicated*, Newsholme's *Vital Statistics*, Statton's *Public Health Acts*, Knight's *Annotated Model Bylaws*, Stevenson's and Murphy's *Treatise on Hygiene and Public Health*, 3 vols., for reference on special subjects.

AN INDIAN SCANDAL.

THE home papers contain the announcement of the death at Colstoun, Haddington, of Lady SUSAN GEORGIANA BROUN, a daughter of the Marquis of Dalhousie, the Governor-General of India Lady SUSAN BROUN divorced Lord Connemara while he was Governor of Madras; and latterly married Surgeon-Lieutenant-Colonel BRIGGS, who before the marriage, had assumed the surname of BROUN.

SHORT ITEMS.

Says the *Lancet*:—"A brief paper in the *Indian Magazine* for January by Mr. Alexander Rogers recalls the fact "that the plague now raging at Bombay and other parts of the Presidency is precisely similar to one that prevailed about 250 years ago at Agra and in the North-West." He quotes an extract from a translation of the Emperor Jehangir's autobiography which he has now in hand, and were the names of persons and places altered we could easily fancy that we were reading an account of the present visitation."

His Highness Sir Bhagvat Sinhjee, G.C.I.E., M.D., F.R.C.P., LL.D., Vice-President of the Indian Medical Association writes as follows to the Secretary of the Association:—"I have read with considerable interest the proceedings of the Indian Medical Association published in the *Record*. It is gratifying to note that the Association continues to increase its sphere of usefulness. Its success is entirely due to its able and energetic Secretary and to the Council."

Surgeon-Lieutenant Henry A. C. Dickson, F.R.C.S., L.R.C.P., Bengal Establishment, died at Sandgate on 27th January, aged 27. He was the third son of the late Rev. George D. W. Dickson, M.A., Vicar of King's Somborne, Hants, and entered the service as Surgeon-Lieutenant, 29th July, 1896.

Furlough for Indian medical officers is still closed, but so severe has been the strain of the past season upon the service that a good many doctors are being invalided. Calcutta in particular will see several changes in the next few months, as Brigade-Surgeon Lieutenant-Colonel Crombie is retiring while Brigade-Surgeon Lieutenant-Colonel O'Brien and Surgeon-Major Leahy have been ordered home on sick certificates. Surgeon-Major R. H. Charles, who is shortly due back from furlough, will probably act for Dr O'Brien.

The Court-Martial held in Bombay on Assistant Surgeon David Davis, Indian Medical Department, on a charge of neglect to the prejudice of good order and military discipline, in that he was ordered by Surgeon-Major Drury not to leave his patient, Colonel Strachan, without permission, neglected to obey the order, was found guilty and sentenced to be reduced in rank. The sentence has been confirmed by General Nairne.

Since the Tirah Expedition commenced, no fewer than 1,756 soldiers, sick and wounded, passed through the British field hospital at Khushalgurh. In one week alone 78 wounded arrived from Kohat and were sent on to Rawal Pindi. The native field hospital has treated 1,400 sepoys and over 1,700 followers who were either wounded or invalided through fever or dysentery Sick convoys pass on the sick and wounded, except those cases too serious to be moved.

Dr. Gangadin, B S C, M D, of Dinapore, has lodged a petition of complaint against Dr. P. C. Mazoomdar, Editor, *Indian Homœopathic Review*, the publisher of the journal, and Mr. B. N. Bannerjea for having published a defamatory article headed "Beware of American Colleagues" reflecting upon the character and reputation of the complainant Summonses have been issued against all the three accused

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The death is announced at Chicago of Dr. Mark E Lackerstreen, late of Calcutta, who was a leading figure in the Indian Mutiny and a highly respected member of an old Eurasian family. On retiring from British employ where he held a high position he accepted a Professorship in the Post-graduate Medical College, Chicago, and died in harness at the age of 62 years.

Among the candidates who have passed in Medicine and Forensic Medicine in the examination of the Society of Apothecaries of London in January last, we are very glad to see the name of Miss Grace Friend Pereira, formerly a student of the Calcutta Medical College and for several years a practising physician in Chittagong. We wish Miss Pereira all success in her career.

The two eyes really see two objects. If the two forefingers be held one at the distance of 1 ft., the other 2 ft. in front of the eyes, and the former be looked at, two phantoms of the latter will be observed, one on each side. If the latter finger be regarded, two phantoms of the nearer finger will be observed mounting guard, one on either side.

Do tell me Doctor. "Is there no way of finding out what is really the matter with me?" queried a lady patient. "Only a post-mortem examination can reveal the truth," replied the doctor. "Then for pity's sake" cried she, do make it at once. I do not see why I should be at all squeamish at such a time as this."

America annually produces and consumes [illegible] 30,000 tons of peanuts (i.e. ground nuts or [illegible]), while Europe imports nearly 200,000 tons of peanuts from Africa and India, and of this quantity Marseilles alone appropriates 1,900 tons for conversion into "olive" oil for the Indian and South American markets.

Switzerland now boasts *six* lady pharmacists. The first lady who broke the ice of prejudice against female dispensaries in the land of William Tell was Fräulein Lett, the daughter of a Karlsruhe Apotheker, who passed her examination "with distinction," and following suit the other ladies have passed equally high.

Dr. Frost wrote a prescription for a Mr. Winter, of San Francisco, who sent it to Mr. Winter's drug store to be dispensed. Dr. Taylor of the S. F. and P. D. wants to know whether two Winters and Frost should not have caused a *cold day* or at least made the prescription *chilly*.

Dr. Lustig, we hear, has written to say that Dr. Galiotti will arrive in Bombay in the first week of March with a supply of the curative serum that proved so effective when applied by Dr. Lustig some months ago to patients in Arthur Road Hospital.

Miss Columbia Rivera, M.D., who has been given medical charge of the women's ward of San Andre's Hospital, can claim to be the pioneer woman interne in Mexico, and Dr. Emma Wakefield, the first colored woman (*i.e.* negress) to earn a medical diploma in the United States of America.

The following are some Chinese medical maxims :—The physician who is sure of his diagnosis says little; he who is not sure talks much without being understood." "The greatest enemy to the health of man is woman; the worst enemy to the health of woman is man."

Surgeon-Lieutenant-Colonel G. S. A. Ranking, M.D., Secretary to the Board of Examiners, goes on tour on the 1st March. He will examine at Lucknow on the 3rd, 4th, and 5th March, Mian Mir on 8th and 9th, returning to Calcutta on 12th sitting.

Glass, prepared by a new patented process, which renders it soft and malleable, is now used by dentists to fill the cavities in teeth. It is said to answer the purpose admirably and is less conspicuous than gold.

In the State of Pennsylvania all medical colleges are required to give a bond of $150 as a guarantee that no human bodies will be dissected except those which come to them through the regularly appointed legal channels.

"I want some pills, please sir," asked a little girl of a certain druggist, who being a man of few words and wanting to know what pills she wanted, asked : "Anti-bilious ?" and was met with the response "Oh, no Sir, Uncle's bilious."

Regulations for the electric lighting of Calcutta are contained in the current Calcutta *Gazette*. They include provisions for securing the safety of the public, and for ensuring a proper and sufficient supply of electrical energy.

The principle embodied in [illegible] is to the effect that the [illegible] in independent or well-to-do circumstances, may be charged as an ordinary patient, although [illegible].

The fact of the son being a practitioner does not entitle his parent to gratuitous attendance. He should be charged according to his true position in life and ability to pay.

The Hon'ble Nawab Syed Ameer Hossein, C.I.E., Presidency Magistrate, Calcutta, is appointed substantively pro tempore to be Coroner of Calcutta, *vice* Dr. R. W. Chambers, about to retire.

Brigade-Surgeon Lieutenant-Colonel D. D. Cunningham Professor of Physiology, Calcutta Medical College, has been granted an extension of furlough up to the 25th of June next.

The official announcement of the baronetcy conferred upon Sir Samuel Wilks M.D., last June was made in the *London Gazette* of 4th February.

Miss H. McDougall, an English nursing sister, has lately died from plague. She contracted it by a patient coughing in her face, some sputum entering her eye.

Dr. Weir, the Bombay Health Officer, sustained a somewhat serious hurt through slipping in the verandah of the Municipal Office.

Dr. George Watt, C.I.E., Reporter on Economic Products to the Government of India, proceeds on furlough for eight months from May next.

Dr. Leather, the late Agricultural Chemist to the Government of India, will shortly return to a similar post under the Government of the N.-W. P. and Oudh.

Among the gentlemen upon whom the honor of knighthood was conferred by the Queen at Osborne, on 25th January, were Dr. Batty Tuke and Dr. John Struthers.

Surgeon-Captain W. Selby, of the 1 and 2nd Gurkhas, has been recommended for the Victoria Cross for his gallantry displayed in action on the Frontier.

Philadelphia contemplates giving fire-brigade officers a course in chemistry to enable them to successfully battle against chemical conflagrations.

A supply of Dr. Haffkine's prophylactic lymph has been received in Calcutta, sufficient for 6,000 inoculations, and more has been indented for.

The *Colombo Globe* issues a caution that imported sandal-wood oil "made in Germany" is nasty as well as cheap, being largely adulterated.

Madame Hu King Eng, who graduated from Pennsylvania Medical College, is chief physician in the household of the Chinese potentate Li Hung Chang.

The latest rumour has it that Dr. Murray, of Howrah, will act for Dr. O'Brien when the latter goes on leave in April. We hope the rumour is [illegible].

We very much regret to announce the death of Dr. Jaggobandu Bose, one of the few M.D.'s of the Calcutta University, on Monday, the 21st February, from acute paralysis.

Current Medical Literature.

Tetany in Children.

EBSTEIN has investigated a number of cases of tetany, spasm of the glottis, and other diseases accompanied by spasm. In the cases of tetany with spasm of the extremities, the disease closely resembled that of the adult. Spasm of the glottis was found in all the cases; but was not necessarily severe or frequent. Fits were only once completely absent. As regards ERB'S symptom, the author agrees that the increased galvanic irritability is the most constant and important symptom of tetany. TROUSSEAU'S phenomenon was not absent in any case. It persisted longer than the spontaneous spasm. This sign may be absent, but when present it is pathognomonic. CHVOSTEK'S symptom was marked in all cases except one, where it was seen only in slight degree. The author says that this symptom is not pathognomonic, and may be present in other children, but in its most pronounced form it is only present in tetany. Muscular irritability was increased in all but one case. The knee-jerks were mostly exaggerated. Most of the children were excitable, but the intelligence was unimpaired except in one case, where there was a slight degree of idiocy. A rise of temperature was only once noted. In only one case of genuine tetany was the child well nourished. Rickets was generally present. There appeared to be a connection between the appearance of gastro-intestinal symptoms and that of the tetany. Hence the resemblance between infantile tetany and the tetany in gastric dilatation of the adult. The author accepts the view that there may be tetany without spasm of the extremities. In such cases ERB'S and TROUSSEAU'S phenomena are present. Such cases he puts down as latent tetany. Spasm of the glottis has nothing to do with tetany. As far as our present knowledge goes, treatment can only be radical where more or less marked digestive symptoms are present. A rapid emptying of the alimentary canal is here indicated.—*Brit. Med. Jour.*

Relation between Diabetes and Cirrhosis of the Liver.

AFTER referring to a number of previously-recorded cases of diabetes associated with cirrhosis of the liver, PUSINELLI reports an additional case of this somewhat rare combination.

The patient was a man aged forty-eight at the time when the case was reported. His previous health had been good. In 1887, he suffered from jaundice for six to eight weeks. In 1888, he first noticed thirst, and 1½ to 2 per cent. of sugar was found in the urine. After a visit to Carlsbad, the sugar disappeared from the urine for some months, but then returned. In 1893, after a severe fright, ascites and jaundice developed, and at a later date edema of the legs. Great enlargement of the liver and spleen was detected. The abdomen was punctured and ten litres of fluid withdrawn. On three subsequent occasions the abdomen was punctured, and after the fourth tapping, blood oozed from the punctured wound for some time. After the closure of the puncture opening, the ascites did not re-appear. The patient improved and returned to his business; the jaundice gradually disappeared and the liver diminished in size.

The point of greatest interest was the sugar excretion. During the year 1893, the amount of sugar in the urine was 2 to 5 per cent., but, during the time the ascites was well marked, the sugar disappeared entirely. After the last paracentesis the glycosuria returned.

In a postscript, the author adds the termination of the case. After the patient had remained well for two and a half years, the dropsy returned, the hæmaturia diminished, death occurred, and the autopsy revealed typical cirrhosis of the liver.

The cause of the liver cirrhosis was not clear; there was no history whatsoever of syphilis or alcoholism.

The Nose as an Index of Disease.

INCOMPLETE closure of the eyelids during sleep is usually an indication of disease of a severe type, either acute or chronic. This symptom is sometimes manifest in sleep which is unsound in consequence of pain. An unusual degree of movement of the nostrils in breathing indicates disease of the lungs or air-passages.

A contracted brow is indicative of pain in the head. Constriction or sharpness of the nostrils indicates pain in the chest. A drawn upper lip is indicative of pain in the abdomen. Brain affections are indicated by a contraction of the upper third of the face, chest diseases, of the middle third; and diseases of the abdomen, of the lower third.

What is known as "the Hippocratic countenance" is the precursor of death. Pallor of the face, if the tongue is also pale, indicates poverty of blood or fainting. Congestion of the vessels of the tip of the nose or the chin suggests obstruction of the portal circulation or a tendency to degeneration of the arteries.

A puffiness about the eyes is suggestive of Bright's disease. A bronzed appearance of the skin is a symptom of Addison's disease. Undue prominence of the eyes indicates exophthalmic goiter. A small pupil which does not contract on exposure to the light is a nervous symptom of locomotor ataxia.

Palpitation of the Heart.

HUCHARD for purposes of treatment divides cases of palpitation of the heart into those varieties which are, and those which are not, benefited by cardiac stimulants. Those cases arising from the ingestion of poisons, coffee, tobacco, and drugs, such as sulphate of quinin, are usually relieved by a removal of the cause. Palpitation due to gastro-intestinal disturbance, usually occurs at night, and is associated with dyspepsia and hyperacidity. For the most part these attacks may be cured by large doses of alkalies, and regulation of the diet. Iron, if taken in too large quantities, may also produce palpitation.

There is no necessary connection between cardiac palpitation and cardiac disease. The diseases usually accompanied by palpitation, and which are improved by digitalis and similar remedies are beginning sortitis, acute endocarditis and pericarditis, adhesions of the pericardium, and mitral insufficiency. In such cases the following prescription will often be found useful.

R	Quinine hydrobrom	...	...	gr. ix
	Digitalis	...	...	gr. xxx
	Ext. convallariæ	...	...	gr. xxx

M. Ft. pill. No. xl. Sig. Two to four pills daily.—*Med. News.*

Clonic Movements in Syringomyelia of Medullary Origin.

HAVE been attributed to the motor zone of the brain and sometimes appear as if a partial epileptic attack of cortical origin; but MARINESCO'S researches show the convulsive attacks result solely from the medullary irritation, independent of any cortical intervention.

Pulmonary Phenomena of Hysteric Origin.

E. LEONI describes a puzzling case where fever rales and other symptoms of pulmonary tuberculosis changed their position daily from right to left side and sometimes altogether absent. Electricity aided by suggestion and moral persuasion effected rapid and complete recovery.—*Jour. Amer. Med. Asso.*

SURGERY.

Significance of Pain.

ARGUING on the general law of the cutaneous sensory nerves being always in association with the vascular nerves of the underlying parts, W. H. THOMSON points out that in diagnostic value alone pain cannot be surpassed by any of the common signs of disease; but as pain differs much in kind, and in character, and verbal descriptions of pain may be extremely indefinite, he regrets that too little regard is shown to the clinical value of the gestures a patient uses while describing his pain, and which gestures, as a rule, are characteristic enough to afford truer indications towards a right beginning in diagnosis than is possible for his language to convey. He quotes a number of examples indicating the necessity for distinguishing by voluntary or involuntary gestures the special varieties of pain which he classifies under six heads:—(1) Inflammatory pain for which opium is the best drug and next to which is aconite, especially in serous membranes and cardiac inflammations, but the coal-tar analgesics are useless in inflammatory pains, but there is a voluntary as well as involuntary tendency to keep the inflamed part at rest as much as possible. (2) Pains due to pressure, as by tumours, abscesses, &c. shown by repeating the movement in a contrary direction (3) Stretching pains as in colic or cramps, where the patient forcibly grasps his abdomen (4). Neuralgic pains where relief is sought by friction or pressure. (5) Subjective pains, as in hysteria, where gestures and language are more of relating a woeful past than of a present reality. (6) Cutaneous reflex pains in which, as a rule, the hand 'hovers' over the affected part.—*Med. News.*

Intestinal Obstruction preceded by Passage of Air and Fæces in the Urine for Fourteen Years.

J. C. CLARKE tells of a man æt 47, who had mild cystitis for 14 years and bladder irritability accompanied by sputtering and explosive discharges of air during micturition. In 1885 he had a short attack of bilious vertigo, after which the bladder trouble got worse, and in 1886 recto-vesical fistula was diagnosed, while debris of muscular and vegetable tissues were found in his urine. His symptoms fluctuated—improving and getting worse—till March 1893, when after a severe cystitis fæcal matter passing freely into the bladder was without difficulty discharged per urethram, but no urine passed per rectum, and though habitually constipated, bowels acted twice daily till August, when they refused to act, and four days later his abdomen becoming painfully distended, was not reduced by saline purges or enemata. As symptoms were becoming urgent and there was no relief to the distension or obstruction, by the 24th idem Dr. CLARKE, in conjunction with Drs. D. LEECH and F. A. SOUTHAN, opened the cæcum by means of right inguinal colotomy and thus relieved the obstruction which, they believed, existed somewhere in the large intestine. The man made a rapid recovery.—*Lancet.*

Ideal Catgut Sterilization.

EVER since LISTER'S discovery of catgut, the advantages of aseptic animal ligatures became more and more recognised, but the difficulty lay in rendering the material sterile and mildly antiseptic without imparing its tensile strength. LISTER'S method of making catgut aseptic was too crude and gave way to other modes KOCHER abandoned his juniper catgut. Carbolised, sublimated and chromasized catgut not infrequently cause wound infection by imperfect sterilization, and even dry sterilization cannot be relied on as absolutely safe for practical use, since LANENSTEIN proved that none of the present methods of disinfection can render the field of operation absolutely aseptic, and EWALD furnished positive proof that sterile catgut still contains bacilli that retard repair by promoting aseptic suppuration. Formation so alters the texture of gut or leather as to increase rather than impair its tensile strength by repeated boiling, and HOFMEISTER came nearst the mark for an ideal catgut ligature, but for the corrosive sublimate acting as an irritant. N. SENN, (*Jour. Amer. Med. Assoc.*) therefore modifies the HOFMEISTER process by (1) tightly winding the catgut in single layers on glass drainage tubes, (2) which is then immersed for 12 to 48 hours in a 2 to 4 per cent. aqueous solution of formalin, (3) after acting on the catgut by immersion in formalin for 12 hours in flowing water he (4) boils it for 10 to 30 minutes in water and then (5) hardens and preserves it by keeping it in glass stoppered bottles containing a mixture of absolute alcohol 950, glycerine 50 and iodoform 100 parts, and claims that if this catgut does not destroy pus microbes it inhibits their growth and accelerates repair.

Anæsthetic Statistics.

PROFESSOR GURLT of Berlin presented the returns furnished during the two preceding years as follows :—

During 1895—96 there were 29,596 administrations.
„ 1896—97 „ 29,178 „

Of these, chloroform was employed in 37,401 cases, with 29 deaths.

„	ether	„	18,856 „	3 „
„	Billroth's mixture	„	996 „	no „
„	chloroform and ether,		4,927 „	no „
„	bromether	„	1,489 „	no „

The mortality may be otherwise stated as—

For chloroform, 1 death in 2,039 cases.
„ ether, 1 „ 5,090 „

In the reports for different years the mortality from chloroform has varied from one death in 1,100 to one death in 4,200, and from ether, from one in 2,800 to one in 6,700. In the first three years there was no death from ether reported. The total statistics now include 327,593 cases, with 134 deaths, or one death in 2,444 administrations.—*Edin. Med. Jour.*

Renal Surgery.

ALBARRAN strongly advocates catheterism of the ureter for the cure of hydronephrosis; and, if that be inefficient, failing to empty the kidney, the catheter should be left in and the organ explored by operation. By means of the instrument, the seat and nature of the obstruction may be ascertained, and then uretro-pyelostomy can be performed with relative ease. Nephrectomy should never be the first step in pyonephrosis As a rule, the general health of the patient and the condition of the opposite kidney contra-indicate this operation, and nephrotomy is the right course. Should it be found advisable later, when health is restored, to remove the kidney, secondary nephrectomy can be done under better conditions. A retained ureteral catheter will greatly shorten the duration of a nephrotomy fistula; and ALBARRAN treats a spontaneous fistula in the same way. He greatly distrusts nephrectomy for malignant tumours as recurrence is the rule. Partial nephrectomy for adenomata seems to mean the hastening of recurrence; indeed, these growths are of a nature which perhaps justifies total extirpation of the organ. On the other hand, ALBARRAN finds that in unilateral tuberculous disease it is best to remove the kidney as soon as possible. Nephrotomy is merely palliative in renal tuberculosis, counteracting retention when the patient is too ill for operation, and above all when the disease is bilateral. In nephrorrhaphy it is not only useless but dangerous to dissect off a portion of the capsule. The process prolongs and complicates the operation and increases the local sclerosis of the kidney.—*Brit. Med. Jour.*

[illegible]

In pelvic and [illegible] were clots and bloody serum in which [illegible] was containing a two months' fœtus. —*Medical World.*

Fatal Puerperal Sepsis from Elm Tent.

CULLEN writes of a woman whose medical attendant deemed it necessary to produce abortion at the fourth month. A slippery-elm tent was inserted into the uterine cavity, a few hours later the patient fainted. Great abdominal pain and a little uterine hæmorrhage followed. On the fourth day great pain and flooding occurred at stool, possibly the fœtus was then passed. A rigor followed, with symptoms of peritonitis, and she died on the sixteenth day. Purulent peritonitis was discovered, and there were abscesses in the uterine wall. The uterine mucosa was everywhere covered with a fine, shaggy necrotic tissue. Lying free in the uterine cavity were six pieces of wood averaging 2¼ inches in length, over ½ inch in breadth, and ⅛ inch in thickness. The lamellæ of the tent had separated, the continued uterine contraction forced the edges of the tent into the substance of the uterus, and it is little wonder, CULLEN remarks, that sepsis followed. Had the cervical canal been dilated, the pieces could have been removed with ease. The case occurred several years ago, when the operative technique was not so perfect as at present. The uterus was examined after it had lain for long in spirit.—*Brit. Med. Jour.*

Abortion and Quinine.

SCHWAB, in seven cases of retained placenta after abortion, gave a gramme of quinine divided into two "cachets" at ten minutes' interval—$7\frac{1}{10}$ gr. at a dose. The results were encouraging. As a rule, the placenta was expelled in four hours and a half by the stimulation of the uterine muscular fibres caused by the drug. In several instances the pains had ceased for hours. Hence the action of the quinine was positive. No bad results were observed, and no tetanic contractions occurred. At the worst the obstetrician can pass to expectant antiseptic treatment or to immediate emptying of the uterus. Neither treatment is prejudiced by the administration of quinine.—*Brit. Med. Jour.*

Physiological Effects of Castration in Women.

JAYLE [illegible] that save where organic disease renders it absolutely imperative, both ovaries should never be removed, as this operative stoppage of the internal ovarian secretion, which plays an important part in the role of nervous [illegible], may be followed by functional disturbances, such as:—flushings, neurasthenic symptoms, [illegible], mental troubles, loss of memory, disturbances of [illegible] and of the special sense organs, and [illegible] phenomena as hæmoptysis, epistaxis, [illegible] in severity in different cases but which are [illegible] met with when the uterus only is removed.

[illegible] are removed, sexual appetite is [illegible] in 24 per cent. and menstruation [illegible]

[illegible]

[illegible] *Rev. de* [illegible]

Treatment of Puerperal [illegible]

[illegible] from the medical [illegible] and the predisposing causes, such as [illegible] nal disease, diarrhœa, constipation and [illegible] from [illegible] retention of [illegible] products, Dr. CHARLES G. JEWETT (*Gaillard's Med. Jour.*) suggested that the mortality [illegible] so high [illegible] progress had been made in the medical treatment of puerperal sepsis, though prophylaxis had made [illegible] notion that the accoucheur was mainly responsible for the occurrence of this condition which was purely preventable. [illegible] vaginal examination by speculum when [illegible] or otherwise treated, he objects to [illegible] tion as interfering with protection of the parts by natural secretions, but recommends irrigation (by the medical attendant) with peroxide of hydrogen or Labarraque's solution and curettage of the uterus if absolutely necessary, with subsequent iodoform draining of the uterine cavity, which should be given as much rest as possible. For systemic treatment plenty of fresh air was essential with [illegible] internally and externally with cold water, and concentrated liquid nourishment. Small doses of quinine and strychnia were useful, and so was intravenous injection of saline solution. Nuclein was useless and though satisfactory so far, there was nothing conclusively from the antitoxic serum treatment.

Calcareous Degeneration in Uterus.

A GERMAN multipara, aged 57, had 11 children, first pregnancy at 19. For last nine years menses very painful and lasting 20 days in each month. June last taken very bad with constant retching, vomiting and pain in uterus and abdomen. Diagnosing subserous fibro-myoma of uterus with cystic accumulation in ovaries, J. N. COWEN performed complete hysterectomy and found a 4-inch fibro-myoma that was not cystic but in the left ovary was a 2-inch calculus and a number of smaller ones, while in the body of the uterus which had undergone calcareous degeneration was one large calculus and innumerably little ones which lined the uterus with sand. The patient died.—*Medical World.*

Cystic Tumour of the Clitoris.

G. [illegible] reports a case of cystic tumour of the clitoris in a woman, aged 42, who had passed the menopause five years previously. The swelling had been noticed by the patient eighteen years ago, but as it had caused her no suffering, she had not consulted a medical man. There was now a prolapse of the uterus with [illegible] of the supravaginal portion of the cervix and a degree of cystocele and rectocele. In the position of the clitoris was a soft elastic swelling [illegible] cm. in length [illegible] cm. in circumference. The prolapse was [illegible] and at the same time the tumour of the clitoris was excised, the dorsal artery requiring a ligature. The cyst was covered by mucous membrane, under which [illegible] capsule, and it contained a [illegible] mass of a yellow color with an [illegible]. Microscopically the contents consisted of pavement epithelial cells, [illegible], crystals, and oil globules.—*Brit. Med. Jour.*

PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

Physiology and Therapeutics of the Thyroid Gland and its Congeners.

Drastic that thyroid extract, which should not be given in quantity sufficient to produce symptoms and is specific in myxœdema and cretinism and has given good results in simple goitre, obesity, sclerodermia and tetany, though it is contraindicated in albuminuria, glycosuria, heart lesions and exophthalmic goitre and is of doubtful value in psoriasis and other skin diseases, insanity, tuberculosis, rickets, etc. H. GIDEON WELLS explains that admitting of great hypertrophy with a slight degree of regeneration and reaching the highest development at adult life, the thyroid gland discharges by the lymphatics into the general blood current a colloid material containing the active principle, thyroidin which contains 10 per cent. of iodine and not only acts as an antitoxine to the products causing auto-intoxication or produces some substance necessary to tissue metabolism, but is also necessary to the animal economy, since absence of it induces myxœdema in adults and cretinism in children, and the amount of iodine in the thyroid glands of the people of any given place varies inversely with the prevalence of goitre in that district.—*Med. & Surg. Rep.*

Healthfulness of Laughter.

AN English scientist, Dr. H. CAMPBELL, has written an essay dealing with the physiologic effect of laughter. When we laugh, he says, we increase the play of the tension of the lungs, and that one result of this increased tension is to arrest the blood-flow in the lungs and thus induce the taking of deep inspirations. These latter are health processes, for many parts of the lung are not called into active use during ordinary breathing. Hence, laughter is an exercise and a good one.—*Med. News.*

Solubility of Gallstones in Oil.

TAKING some friable dark-greenish brown facetted gallstones, that had been passed by a patient under the olive oil treatment, SCOTT exposed them at 98·4F in vessels containing olive oil, almond oil and paroleïn respectively and found that after 36 hours immersion little was left but the nucleus of the stones which dissolved with almost equal readiness in the different oils, approximately losing 0·25, 0·5 and 0·75 of their weight respectively in 12, 24 and 48 hours and dissolving in regular layers. For the second experiment the stones were removed from the gall bladder by operation, but though they dissolved uniformly they maintain their hardness and brownish-yellow color and exhibited no well-defined layers. They seemed to contain more pigment and salts than the other stones and lost much less weight during corresponding periods of immersion. After 4 days those in olive oil lost a little more than half, those in almond oil exactly half, and those in paroleïn less than one-third of their original weight. In the third series the stones were obtained by operation and were as large as filberts. They commenced to dissolve in one hour, but the percentage loss of weight was relatively less than in the second experiment, and at the end of 25 days those in olive oil lost little more than half, and those in paroleïn rather more than one quarter of their original weight.—*Brit. Med. Jour.*

Prenatal Infection.

EDWARD P. DAVIS describes cases of hemorrhage from various mucous surfaces and of green stools in the newborn infant, and has specially investigated their bacteriological manifestations. These cases he ascribes to prenatal infection. In the feces were found the bacillus coli communis, the micrococcus pyogenes aureus, and the micrococcus pyogenes albus. The treatment adopted was copious intestinal irrigation with normal saline solution, and this was successful in mild cases. A coccus was obtained from the blood of infants with the grave form, which, when injected into the bodies of pregnant guinea-pigs, was found in the young pigs. It most closely resembles the micrococcus tetragenus ventriculi associated with yellow fever. The condition is a toxæmia of apparently intestinal origin; but whether the germ gives entrance to the fœtus by the placenta or by the umbilical vessels during birth is uncertain.—*Brit. Med. Jour.*

Toxic Effect of Infinitesimal Quantities of Metallic Salts on Living Organisms.

RAULLIN astonished the world by showing that Aspergillus Niger would not live in water placed in a perfectly clean silver vessel, and that its growth was inhibited by 1 part silver nitrate in 1,600,000 parts of water, but the results of CARL VON NÆGELI's studies on spirogyra were simply stupefying. He found that if placed in a solution of 1 part silver nitrate in 1,000,000,000,000,000 parts of distilled water for 3 or 4 minutes, these organisms died in a different manner to what they did when placed in comparatively strong solutions of this salt. In the latter instance death was due to chemical action, the cellular contents disappearing from the membrane, the bands of chlorophyll changed color but not position, and the cell lost its turgescence. With infinitely diluted solutions death was due to oligodynamia in which the cells maintain their turgescence, the chlorophyl spirals agglomerate, become shorter and separate from the plasma which remains in place. Corrosive sublimate gave more startling results, as a solution of 1 in 1,000,000,000,000,000,000,000,000 killed the organism. He found that many substances supposed to be insoluble in water, such as metallic gold, mercury, &c. if merely placed in the water impart to it this oligodynamic virtue which could however be destroyed by adding flour, cellulose, wood, &c. to the water, and toxic water also became neutral if a sufficient number of organisms were placed in it.—*International Brief.*

Directions for Preparing Specimens of Blood.

THE skin covering the tip of the finger is thoroughly cleansed and then pricked with a clean needle deeply enough to cause several drops of blood to exude. Two large drops are then placed on the glass slide, one near either end, and allowed to dry without being spread out on the surface of the slide. After they have dried, the slide is placed in the holder and returned in the addressed envelope to a culture station, or mailed to the laboratory. The blank giving the history of the case must be filled out in full and forwarded with each specimen. The data thus obtained are for record.

Nasal Micro-Organisms.

IN all bacterioscopic investigations of the nasal fossæ, in all researches as to the action of nasal mucus, etc., a clear distinction must be made between the vestibule of the nose and the proper mucous cavity. The former is lined with skin, and is not part of the nose cavity proper, but only leads to it.

Contamination with the lining of the vestibule is difficult to avoid, even when this source of error has been realised:

In the dust and crusts of mucus and débris deposited among the vibrissæ of healthy subjects, micro-organisms are never absent, and are usually abundant:

On the Schneiderian membrane the reverse is the case; under normal conditions micro-organisms are never plentiful here, are rarely even numerous, and in more than eighty per cent. of cases no organisms whatever are found and the mucus is completely sterile;

The occurrence of pathogenic organisms must be so infrequent that their presence on the Schneiderian membrane can be regarded only as quite exceptional.—*Med. Age.*

[illegible]

[illegible]

Dr. Vallin, in the *Revue d' Hygiène et de Police Sanitaire*, [illegible] illusions concerning the healthiness of [illegible] meat. The *bifteks* and *gigots saignants* so dearly loved and firmly believed in by the French nation, are condemned by this authority. Dr. Vallin has controlled the researches made by Dr. Fiore, attached to the Sanitary Institute of Palermo. This sanitarian cooked a number of small pieces of meat, in which were stuck small metal arrows capable of fusion; he thus could estimate the degree of temperature existing in the morsels of meat experimented on. Other pieces of meat, in which various microbes were developing, were treated in the same way. It was thus demonstrated that boiling carried on for a long time is more destructive to pathogenic germs than any other culinary process; it acts not only on bacilli but on spores. This ought to increase the reputation of the "vieux pot au feu Francais," which is not now honored in many French households as it ought to be, being regarded more as a means of making broth than as an excellent and wholesome form of food. Braising meat, according to Dr. Vallin and Dr. Fiore, is one of the most unsatisfactory ways of cooking meat from a sanitary point of view; it has no effect on either spores or bacilli. In grilled and roasted meat they are not destroyed unless the temperature they are submitted to is very high.

What Constitutes a Pure Water Supply.

The *Buffalo Med. Journal* sums up in the following five propositions :—

1. That the water supply should not be liable to pollution by the sewage of another community.

2 The sewage of the community should not be emptied into a water course with a current of less than three miles per hour, and the sewage entrance should be at least a mile below the intake.

3. If the water supply is from a navigable stream, the water should be sand-filtered before being supplied.

4. For drinking purposes the water should be either filtered, boiled or distilled and aerated.

5. Chemical and bacteriologic examinations should be made at least once a week and where contamination exists, an engineer should be employed to detect its cause and origin.—*Med. Brief.*

Segregation of Lepers.

Impey writes to *The Medical Week*, calling attention to the unnecessary expense and annoyance of the detention of anesthetic lepers, who cannot, in his opinion, communicate the disease to others, since the bacilli of this disease are not found in any tissues except the nerves. For practical purposes all lepers should be divided into two classes: (1) tuberculous and mixed leprosy, any (2) pure anesthetic leprosy.

In his own country, Cape Colony, Impey states that there are, so far as known, about 2,000 cases of leprosy, not more than one-third of which are of a tuberculous or mixed type. Anesthetic leprosy is of only about four-years' duration, and to herd the cured and non-contagious patients with the dangerous ones, is a wrong to them and an unnecessary expense to the State, and it also renders it almost certain that some of the patients will, sooner or later, contract the disease in the tuberculous form.—*Med. News.*

The Cold Tub.

The need of dogmatic medical guidance to the average medical man is nowhere more in evidence than in the manner of the cold tub. Some men there are who bathe in the open year in and year out, and [illegible] who every morning plunge into cold water [illegible] tempering shelter of their own roof-tree. For the most part such folk doubtless thrive and remain [illegible], but then it must be borne in mind that only the robust would brave such Spartan discipline. But what has medicine to say on so important a point of every-day life? So far as we know, there is no authoritative and generally accepted dogma on the point. That which braces up the nerve centers and circulation of the strong man might be full of danger to the weakling. So, too, with age; as the elasticity of the arteries decreases with the lapse of years, by just so much increases the risk of a sudden strain upon the capacity of the blood-distributing system. Out of all the tangle of nescience upon this subject, one or two solid facts, or what appear to be such, rear their stubborn heads. For instance, who will gainsay the dictum that the chief test of fitness for the cold bath is the individual power of establishing reaction; in other words, of getting the delightful after-glow and warmth of the skin that should follow a vigorous "towelling." Secondly, many people who seldom or never take a bath are, like our ancestors, healthy and long-lived. In spite of that negative evidence, however, we would advise a morning tub to all our readers; cold for those who can stand it, tepid for weaker and less resolute brethren, and warm for the aged. But even this general indication must be carefully modified to suit particular cases. The wise citizen will consult his medical adviser upon this weighty matter of daily routine.—*Med. Age.*

Chronic Poisoning by Coffee.

As the symptoms are nearly identical and in both cases the stomach and nervous system bear the brunt of the attack, Dr. Gilles De La Tourette finds that toxic symptoms due to the inordinate ingestion of coffee are almost always mistaken for those dependent on the abuse of alcohol; but paralysis have not yet been observed, and the reflexes generally remain normal in chronic coffee poisoning, and the suppression of coffee is rapidly followed by improvement and elimination is quicker than in the alcohol subject. In caffeic gastritis morning vomiting of glairy mucus, pain in pit of stomach, thickly coated tongue and loss of appetite give place to nausea, vomiting and painful acid eructations followed by caffeic cachexia involving the circulatory system and leading to insomnia and various nervous disturbances, such as fibrillar trembling of the lingual and facial muscles, and marked tremor of muscles of both extremities with, frequently, cramps (often very painful) of the thigh and calf muscles and, in children, arrest of development. But stop the coffee and these toxic symptoms promply disappear.—*Lancet.*

Medical Practitioners and Sanitary Inspectors.

Dr. A. L. Bell, of Dunfermline, has had reason to complain to the Burgh Commissioners of that town of the way in which he had been treated by the Assistant Sanitary Inspector. As the result of an enquiry three conclusions were arrived at. The first was that the inspector had examined patients who had already been notified by Dr. Bell as suffering from infectious disease; the second, that the inspector had used imprudent language when speaking of Dr. Bell's purposes in notifying cases; and the third was that he had exceeded his powers by having a female patient removed to the hospital without consulting Dr. Bell, and without the sanction of the Medical Officer of Health for the burgh. The Sanitary Committee therefore admonished the inspector to be more careful in future in discharging his duties. Dunfermline is not the only town in Scotland, or in England either, where the medical profession have had to complain of the action of the sanitary inspector in regard to their patients.—*Treatment.*

[illegible]

[illegible] much food at one time.

The best plan is to strain the fresh milk through a freshly-boiled cloth into a clean basin, which place in ice for 4 hours, after which skim off 8 ounces (per quart of milk) containing [illegible] milk fats. To this add a modicum of lime water, sweeten and with milk sugar or plain granulated sugar and make up to desired strength with good boiled water (cooled.) With this fill up as many bottles as feedings are needed in 24 hours, plug with clean cotton wool and sterilized at 170° F, for 30 minutes in Freeman's pasteurizer immediately replace in ice. When wanted for feeding, warm by setting bottle in warm water. In warm weather the milk should be more diluted.—*Gaillard's Med. Jour.*

The Uses of Bleeding, Emetics, and Blisters.

AT the meeting of the Academy of Medicine, which was held on 28th January M. ROBIN pleaded hard for a revival of the use of three therapeutic agents which have almost completely dropped out of use at the present day—namely, bleeding, emetics, and blisters. In case of pneumonia, uræmia, and morbus cordis the letting of blood increases nitrogenous changes in the tissues, increases the oxidation of the products of disintegration, and assists chemical action in the nervous system. It also increases to a considerable degree the changes brought about by respiration, and is a method of general oxidation which should not be neglected in cases of cardiac weakness, pulmonary œdema, malnutrition and toxæmia. Emetics in the treatment of pulmonary diseases are gradually being replaced more and more by antisepsis of the bronchi, but it must not be forgotten that besides their action upon the respiratory tracts emetics have an oxidising effect consequent upon the increased respiratory movements which they bring about. This action of emetics upon chemical change in the tissues was a reason for M. ROBIN to urge their re-introduction into practice, and he considered that emetics were just as useful in bronchial affections as purgatives in gastro-intestinal cases. As for blisters M. ROBIN agrees with M. FERRAN and considers that they augment phagocytosis and increase nervous influence. They also aid respiratory movements and have an undeniable action upon respiratory chemical action which M. ROBIN considers very useful in pulmonary congestion, pleurisy, and pneumonia. M. TRASBOT held that bleeding and emetics were excellent therapeutic agents in veterinary medicine. M. HUCHARD agreed with M. ROBIN as to the value of bleeding and emetics, but with reference to blisters he considered that there were several objections to their use, and that these ought to be clearly set forth in the interest of patients themselves who often clamoured for the application of blisters, and that there were cases where their use would be very doubtful or even might be attended with fatal consequences, while M. LABORDE pointed out that blisters sometimes brought on nephritis.—*Lancet.*

Deaths under Anæsthetics.

[illegible] has collected the available statistics of deaths during anæsthesia, and gives the results as follows. Al-

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ether ...	[illegible]	[illegible]	[illegible]	[illegible]
Chloroform and ether	11,[illegible]	[illegible]	[illegible]	[illegible]
Billroth's mixture ...	3,7[illegible]	[illegible]	[illegible]	[illegible]
Ethyl bromide ...	10,7[illegible]	[illegible]	[illegible]	[illegible]
Pental ...	6[illegible]	[illegible]	[illegible]	[illegible]

It is scarcely necessary to point [illegible] that results are no doubt [illegible] accurate; yet they are only [illegible] is taken of the different comp[illegible] tion of the patient, or the [illegible] may contribute to the fatal [illegible] much more deadly than ether [illegible] that a mixture of the two would occupy a middle place as regards safety, yet this table would prove it to be very much safer than either of them.—*[illegible]*

Witch Mouth-Wash.

	Oz.
Distilled witch-hazel	16
Honey of roses	4
Tr. of myrrh...	4
Tr. of cinchona	4
Glycerine of borax	2

Mix and filter.

One part of this solution to four parts of water for rinsing the mouth. For sore mouth, irritable or sore gums.

Witch Complexion Beautifier.

	Oz.
Distilled witch-hazel	12
St. Thomas bay-rum	8
Depurated cucumber-juice	4
Glycerine of borax	2
Water of ammonia	2
Tr. of benzoin	2

Mix and filter.

Apply several times a day to the complexion with a soft sponge.—G. H. DUBELLE in *Practical Druggist.*

Typhoid Fever.

IN order to obtain intestinal antisepsis, Dr. C. ROYSTER prescribes

℞ Thymol,
Carbonate of guaiacol,
Soap, of each 3iss
M. Make into thirty cachets.

Sig.: One cachet to be taken every four hours.—*Le Progres Medical.*

Uræmia.

℞ Ext. pilocarpi alc.,
Ext. scillæ,
Resin. jalapæ,
Resin. scammonii, of each ... gr. xv.
M. et ft. pil. ... ... No. xx.

Sig.: Four or five pills daily during as many days.—*Med. News.*

Acute Bronchitis.

℞ Ammon. muriate ... gr. lxxx.
Tartar emetic ... gr. i.
Iodide potass. ... ʒi. xvj.
Simple elixir ... ʒv.
Aq. dest., q. s. ... ad ʒviij.

M. Sig.: A tablespoonful every three or four hours.—*Texas Med. Jour.*

[illegible] Fever.

℞ Acid. nitrohydrochlor. dil. ... m x.
Tinct. podophylli ... [illegible]
Succ. taraxaci ... [illegible]
Tinct. nucis vom. ... [illegible]
Syrup. zingiberis ... [illegible]
Aq. menth. pip. q. s. ... ad [illegible]

M. Sig.: In water, three times a day [illegible]—*[illegible] Med. [illegible]*

Correspondence.

CIVIL MEDICAL APPOINTMENTS AND THE WAR RESERVE.

To the Editor, "Indian Medical Record."

Sir,—*Apropos* of the above, about which letters have appeared in the *Indian Medical Record*, I have to make a few observations. In a recent issue of yours, a correspondent published names of Military Assistant Surgeons with English qualifications. With what view it is hard to say. If it was intended to hold them up to ridicule, and show that, in spite of degrees and diplomas, they are still and always liable to be relegated to compounding work, and to go round the wards with hand-books, the effort was a marked success. I will be more explicit: among the M. A. S. of the Bengal Presidency, there are four men holding diplomas from the Colleges of Physicians and Surgeons, Great Britain and Ireland. On the call for military duty, only one man held on to his civil work, the other three were sent away at a moment's notice, in plain language, for subordinate and compounding work. I was always under the impression that a diploma conferred on the holder certain legal rights and status in all countries under the English flag, which as far as I know, were never challenged or set aside. Yet in the I. S. M. D., we see qualified doctors placed under inferiorly qualified assistants. I do not mean any offence to the latter class, but contrasted with those who have qualified in England, the comparison holds good. Will any one, who has ideas of right and wrong, glance over the Army List for the last quarter. The *whole* of the war reserve was not called out, as there are still about 20 M. A. S. on the civil list. The question arises; How is this picking, choosing and sorting done? I do not at all mean to say that qualified men should not be removed from civil work on the call for military duty, but certainly when non-qualified men are available, the former should not be disturbed in their preferable claims. I am sure every right-thinking person will agree, that professional rights should be rigidly guarded. Only the other day there was a storm in a tea-cup, when a young Eurasian lady, who had had a local training, was entertained as a temporary nurse, and posted to one of the Base Hospitals for duty, at once there was a hue and cry, and a para appeared in *Truth* dilating on the enormity of the offence. Needless to say it had effect. So that *nurses* can gain their rights, because they have all powerful aid to back them up, but qualified men none. May I ask if a Surgeon-Lieutenant A. or I. M. S. would serve under a Surgeon-Major I. S. M. D.? I trow not, although both bear commissions from Her Majesty. From a professional point of view, it would be, to say the least of it, unjust. The position of a qualified man in the I. S. M. D. in military duty is an anomalous and hard one indeed. Medical officers look on him with disfavor, he is made to feel his position keenly, there is no shadow even of extending professional courtesy to him and his legal status is ignored. With other M. A. S. he fares worse for there are jibes and petty insults. "His Degrees and Diplomas are worth nothing, there are other men without these adjuncts in civil work." At present there are three *qualified* men in military employ, with salaries ranging from Rs. 110 to 150 per mensem! Just think of it, what rewards wherewith to compensate men for their energy and professional attainments.

Some time ago, it was rumoured that one or two Commissions in the I. M. S. would be given annually to qualified M. A. S. as is done in the rank and file of the army, but nothing has come of it yet. Later on, it was suggested, that on gaining diplomas, the honorary rank of Surgeon-Lieutenant would be bestowed—both points have been ignored, and a retrograde movement seems to have set in. There are a good few now in civil employ, who have gained their posts, not through professional merit, but that they had clerical influence at Head-Quarters. In my opinion the better class of civil billets should be given, firstly, to qualified men, and then to those who have passed well from the local medical colleges. It is to be hoped that the present officiating Director-General, I. M. S. one of the foremost medical officers in his profession, will do an act of justice to those of his fellow professionals in the I. S. M. D., who have been working away uncomplainingly for months in military employ, and have them suitably rewarded with civil posts.

Yours &c., Onlooker.

(There is considerable justice in these claims and we would respectfully invite the kind attention of the Director-General, I.M.S. to the matter.—Ed., I.M.R.)

:o:

HIGHLY PLACED ANGLO-INDANS.

To the Editor, "Indian Medical Record."

Sir,—As you have expressed a wish to receive the names of Anglo-Indians and Eurasians who have risen to good positions in the Government service or have otherwise rendered valuable services to the State, I have the pleasure of sending you a few names from the Bombay Presidency which I do not find have been communicated to you before. The idea of collecting such names with a view to bring them before the public, it is needless to say, is an excellent one and meets with general approval, and I only hope that in a very short time you will have a good array of names, of which we, as a class, may well be proud. To begin, I would mention:—

1. Major Lionel A. Thomas McCudden, 7th Foot, 8th Bombay Native Infantry. Date of 1st Commission, 16th March 1867. Date of Admission to Staff Corps, 30th November 1870. Major Wing Commander 8 Bo. N. 1st February 1889. 2nd in Command, Staff Employment, 1893. War services; Afghan War, 1880; march from Quetta to relief of Kandahar, Medal; Burmese Expedition, 1885-1887, Medal with clasp. This gentleman has retired from the service, and the above can be verified from the Bombay Army List, 1890.

2. Frederick Hutchinson, Assistant Secretary to Government, Revenue Department, Bombay, who subsequently had the unique honor of being the first Uncovenanted Officer who held the appointment of Collector of Bombay, now reserved for the Civil Service.

3. Edward Pratt, Assistant Secretary to Government, Judicial and General Departments, Bombay, and in his time one of the principal Municipal Commissioners of Bombay.

4. Edwin Freeborne, Actuary, Government Savings Bank, Bombay.

6. Stanley Lawless, Assistant Secretary to Government, Revenue Department, Bombay.

7. A. R. King, Assistant Secretary to Government, Bombay.

8. F. William Maidment, Assistant Secretary to Government, Bombay.

9. Solomon Wright, State Auditor, Bombay.

10. Henry Frederick Brayne, Senior Deputy Collector, Land Commission.

11. Isaac Droop, Deputy Collector, Dharwar.

12. John Christian Anding, Deputy Collector, Belgaum.

13. John Cornelius Whitcombe, Superintendent, Revenue Survey, Poona.

I could add considerably to the above list, but I fear I have already trespassed too much on your space.

Yours &c., W. H. T.

KARACHI, *13th February 1898.*

(We will gladly publish ALL the names. Send them in.—ED., I. M. R.)

———:o:———

INCREASED MORTALITY FROM FEVERS IN MADRAS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—In your leader of 1st February 1898, you prove that a high fever mortality prevailed with a low sub-soil water and *vice versa*.

In your impartial criticism, to speak according to the actual facts observed by an unscientific and humble pupil of Dr. KING, almost all must admit that you have come nearer the mark than he has.

One proof of this was the almost completely dried up state of the silvery Cooum River, the chief drain and receptacle of Madras filth, during the great prevalence of fever and high mortality.

Between 1878 and 1892 it was invariably observed in both the General and Station Hospitals on the bank of the Cooum River, that when the river was very low, and unflushed by the sea (owing to the silting up of the bar) it emitted an unbearable stench into the hospitals, the fort, and the town.

This caused the inhalation of the quintessence of filth, and the breeding of unlimited swarms of mosquitos, which sticking to the white walls of hospitals and other buildings made them look almost black.

These, combined with extreme heat, banished rest at night, and were enough to drive people mad.

The remedy proposed was to keep the bar always open, to flush the Cooum, and prevent the drains opening into the river; but the expert, Mr. COUMBE, could only suggest a drainage scheme of a very costly nature. The difficulty being to drain a place that is apparently lower than the sea.

It is a common saying that the Cooum mosquitos inoculate organic poison into the human system, predisposed to disease by its environment. Imagine our distressful difficulties in Madras, a climate without rain and with grilling heat, and a low sub-soil water polluted with the fermenting organic poisons of a city added to which we have an excess of carbonic acid and sulphuretted hydrogen arising from the soil and drains, etc., and that moisture from the sea close by. Could insanitation be worse?

It will be remembered that the late Lord HARRIS, Governor of Madras, died at Ootacamund when the Cholera was low.

Yours &c., SURGEON.

———:o:———

THE TREATMENT OF DYSMENORRHŒA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Will some one oblige me and my patients with apt suggestions for treatment curative or at least palliative. Both the cases are chronic of about 10 years' standing. There is no reliable consultant available in the neighbourhood, hence this request.

I. A virgin, about 23 years old, excruciating pain for the first three days of each period, cervix in hollow of sacrum, fundus felt in front of cervix, sound only goes at most for about one inch, movement of uterus causes a *dragging* pain in the right iliac region, anteflexion with adhesions. Anodynes used and Hewitt's cradle pessary worn for six months, failed to give relief.

II. A woman, about 24 years old, married for 9 years, no child, pain very severe for three days before and for the first three days of the period, fundus felt behind the cervix, the sound can be passed with some difficulty but its rotation to the normal position causes *severe dragging* pain. Leucorrhœa for a week after the period. Retroversion with adhesions.

Suggestions earnestly solicited.

Yours, &c., B. G. ALPA.

(Both these cases can be cured in six months by the use of a light silver intrauterine stem. Relief from all suffering is almost certain after six weeks wearing of the stem.—ED., I. M. R.)

———:o:———

MEDICAL ADVERTISING IN CALCUTTA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The annexed advertisement is cut out of the *Statesman* of the 25th February 1898, and it is appearing daily in that lay paper :—

NOTICE.

I have this day purchased the good-will, stock-in-trade, and outstandings of Messrs. HOWARD and Co., Chemists and Druggists, of 48, Dhurrumtollah, free of all encumbrances and liabilities.

The business will be continued, as before, under the personal supervision of Mr. J. E. DANIEL.

CONSULTATION DEPARTMENT.

Dr.———attends from 8 to 10 A.M. daily.

Dr.———M.D., attends from 10 to 11 A.M. daily, excepting Sundays.

Dr.———M.B., Edin, attends from 7 to 8 A.M. and 4 to 5 P.M. daily.

MASUD KHAN, *Proprietor.*

Mr.———is an Honorary Surgeon-Lieutenant I. S. M. D.,
Dr.———is L.R.C.P. & S. Edin.; Dr.———also holds a Scotch qualification.

From the advertisement it would appear that all these European gentlemen are employed by the native who is the proprietor of the chemist's shop in which their professional services are given.

Yours &c., MISPRINT.

(We have omitted the names of the gentlemen concerned, and we trust they will see their way to sending this objectionable and unprofessional advertisement to be removed from the columns of the *Statesman*.—ED., I. M. R.)

ANGLO-INDIAN LADY DOCTORS.

To the Editor, "Indian Medical Record."

Sir,—The following are a few likes of the Anglo-Indian femininity of Bombay, who have done credit to their tuition training :—

1. Mrs. Annie Sharpe, née Wallis, L.M.S., 2nd Physician, Cama Hospital, Bombay.
2. Miss. Alice L. Mackenzie, L.M.S., Dufferin Hospital, Gyn.
3. Mrs. Annie Gordon, nee Dunn, L.M.S., M.D., Medical Mission, Mungeli, C. P.
4. Miss Emeline DeCunha, L.M.S., Plague Committee, Bombay.
5. Miss Mary Barnard, L.R.C.P. &s. Edin., State Hospital, Bhopal.
6. Miss Mildred Graham, L.R.C.P. & S., L.F.P. & S. Edin., in medical charge Oodyepore Hospital, Oodyepore.
7. Miss Helen Lauder, L.M.S., L.R.C.P. & S. Edin., L.F.P.S. & M.D., Brussels, Dufferin Hospital, Ulwar.
8. Miss Annie Brennen, L.R.C.P. & S. Edin., L.F.P.S., L.M. Dublin, on Plague inspection duty.
9. Miss Rose Ferreira, L.M.S., Bombay.

Yours &c., M. T. C.

(Will some kind friend be good enough to send us the names, qualifications and addresses of Anglo-Indian lady doctors in other Provinces.—Ed., *I. M. R.*)

:o:

BREVET COMMISSIONS.

To the Editor, "Indian Medical Record."

Sir,—A "Sufferer" suggests that Assistant Surgeons employed as Civil Surgeons should hold the temporary rank of Surgeon-Lieutenant to enable them to draw the higher rate of travelling allowance This, I think, is feasible, but the following taken from the Civil Service Regulations —our guide while in civil employ—suggests a precedent and principle which could be easily followed in the case of Assistant Surgeons while employed in a higher capacity.

1103 (c). A certain number of upper and lower subordinates, according to a scale to be sanctioned from time to time by the Government of India, P. W. D., placed in charge of districts of the Buildings and Roads Branch, N.-W. Provinces and Oudh ; and upper subordinates according to a scale similarly sanctioned placed in charge of sub-divisions of the Irrigation Branch, Bengal, N.-W. Provinces and Oudh and the Punjab are allowed travelling allowance at the rates admissible to Assistant Engineers or Sub-Engineers, as may be ordered by the Local Government.

Yours &c., Another Sufferer.

:o:

THE LEGITIMATE PREVENTION OF CONCEPTION.

To the Editor, "Indian Medical Record"

Sir,—To start with, let me say I am one who does not believe in the indiscriminate prevention of conception, and I recognise no legal claim for this step, except that of the physical inability of the woman to bear a healthy full-term child. It is only to this class of cases that the prevention of conception is, I believe, morally and legally allowable.

The method I prescribe has never failed when carried out properly. I cause to be introduced a rubber cap over the neck of womb (the French pessaire) just before intercourse. I explain how I want it to fit the neck of the womb. After intercourse, inject one quart of warm water into the vagina with a rubber syringe. Then remove the rubber cup, and inject one pint of warm salt water high up in the vagina ; then have a small ball of absorbent cotton with string attached, saturated with boro-glyceride, introduced high up in the vagina. Leave this cotton in eight or ten hours, then remove it. This method is certain and harmless.

Medical men, I think, ought to know of some definite way of preventing conception, and thus spare those unfortunate patients with deformed pelves, from the dangers of an induced abortion.

Yours &c, Obstetrician.

:o:

ACTIVE SERVICE FOR SENIORS. A HARDSHIP TO JUNIORS.

To the Editor, "Indian Medical Record."

Sir,—Having heard that the Senior Assistant Surgeons about to retire, are to be kept on the active list, I wish to tell you that this will be a great hardship and injustice to us men who have been looking out for promotion for 34 years, and now find the way barred by fortunate fellows who got their commissions after 25 and 26 years' service, 8 and 9 years before us It is very disheartening, and the loss in pension which it will cause will be a greater injustice than the lost pay. I beg you will take up the matter and ask Government to keep these senior men on as *supernumerary* to the fixed establishment, which would not then interfere with our legitimate advancement

To have done hard work and patiently waited through long years of stagnation in promotion, and after 34 years' service to find the way barred by fortunate men is simply disheartening. If you will kindly help us, we shall be at all times grateful.

Yours &c , Hope Deferred.

Baroogar, *12th February 1898.*

(We understand the fears expressed in this letter are unfounded, and that no such steps are contemplated by Government. Were they adopted, as feared, we certainly think the additional active service should entail the incumbents being placed on the Supernumerary List.—Ed., *I. M. R.*)

:o:

EFFRONTERY AND INSULT TO A PHYSICIAN BY A NATIVE DISPENSARY.

To the Editor, "Indian Medical Record."

Sir,—A native chemist's firm within a stone's throw from the *Record* office, had the impertinence and effrontery to insult a most reputable physician in this city the other day, by boldly advertising his name and qualifications on its hand-bills, backing these by a special puff of their own about his skill These hand-bills were distributed broadcast over the streets of Calcutta, and attention was drawn to them. Finding that one of the medical practitioners (a retired Honorary Surgeon-Lieutenant) who was also being advertised on these hand-bills had his name, pedigree and puffs of sorts, posted on the street frontage, we naturally concluded that he was fully aware of the hand-bill advertisements. The objectionable hand-bill was forwarded to the other physician (whose name, though on the hand-bills, was not to be seen on the street door.)His reply was : "I am in receipt of your kind note

drawing my attention to my name being used by Howard & Co., in their circulars or hand-bills. I am very thankful to you for it. I have already written to Howard & Co. on the subject, protesting against their conduct." The doctor in question is entitled to damages from the native proprietor of the chemist's shop for making such an unwarrantable and unprofessional use of his name on his hand-bills should be strongly advised. The Honorary Surgeon-Lieutenant, who figures on the same hand-bill, to cause such proceedings to be put a stop to or the question may arise whether a gentleman, holding the Queen's Commission, can permit his position to be compromised in this way.

Yours &c., M. I. M. A.

—:o:—

DO CARRION EATERS OF PLAGUE CORPSES SUFFER FROM PLAGUE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Can you inform me through your journal whether birds of prey—vultures that feed on plague corpses in the Tower of Silence—ever get the plague and die, and if not, why not?

Also whether hyenas and jackals ever get cholera after feeding on cholera corpses? Have you ever heard of an epidemic of these diseases amongst those birds and animals.

Yours &c., JOHN E. WHITE,
Medical Officer, Godaveri District.

KOVUR, *7th February 1898.*

(We would like to find these queries answered if it be possible.—ED., *I. M. R.*)

Book Reviews.

THE ASEPTIC TREATMENT OF WOUNDS.

BY DR. C. SCHIMMELBUSCH.
Translated from the German,
BY A THEODORE RAKE, M.B., B.S., Lond. F.R.C.S.,
Pathologist to the East London Hospital.
(Publisher: H. K. LEWIS, 136 Gower Street, London, W. C. Price *5s*).

HAVING visited Professor Von Bergmann's University Clinic in Berlin a few months ago, and having seen the whole of the ingenious apparatus described in this work for the aseptic treatment of wounds, it is with much pleasure and interest and profit that we have carefully read Dr. Rake's translation of Dr. SCHIMMELBUSCH'S little monograph on this vitally important subject; the author emphasises the importance of this method of treatment; he details the factors inducing infection by act and by contact with surrounding objects—the surgeon and his assistants included—and the material causes of wound infection are set forth with clearness. The *crux* of the book is "disinfection," and the bulk of the author's thoughts are occupied with this theme; the disinfection of the patients, the sterilisation of instruments, dressings, sutures, ligatures, sponges, drainage and irrigation appliances and the whole paraphernalia of the operation room from the surgeon, the patient, the assistants, the nurses, everything from the roof to the floor, are precisely and laboriously dwelt upon, since the quintessence of care and absolute cleanliness are the *sine qua non* of success in aseptic surgery. Unquestionably Dr. Rake has placed English surgeons under a debt of gratitude to him for his accurate and faithful translation of this valuable treatise by Dr. SCHIMMELBUSCH, which bears the impress of so great a surgeon as Professor VON BERGMANN, who was the teacher of the author. No practical surgeon can afford to lose the opportunity of learning the modern principles of wound treatment as taught in this volume.

MASTOID ABSCESSES AND THEIR TREATMENT.

BY PROFESSEURS BUSCA & LUBET-BARBON of Paris,
Translated from the French.
BY HENRY J. CURTIS, M.D., B.S. Lond, F.R.C.S. Eng.
Assistant Professor of Pathology, University College, London, and Assistant Surgeon, Ear and Throat Department, University College Hospital.
(Publisher: H. K. LEWIS, London. Price 6s.)

THIS memoir entitled "Les suppurations de l'Apophyse Mastoide et leur traitement," was awarded the Prix Meynot by the French Academy of Medicine in 1894. From clinical, pathological, therapeutical and modern operative stand-points, this little brochure must be considered an embodiment of the clearest and best views on an intricate yet essentially practical and important surgical topic. It is illustrated with colored diagrams that pourtray with definite lucidity the anatomical description, and surgical relations of the mastoid region, and these with the graphic literary dissertation of the subject, make the comprehension of this difficult domain of surgery most intelligible to the student and the surgeon.

SURGICAL PATHOLOGY AND PRINCIPLES.

BY J. JACKSON CLARKE, M.B. Lond. F.R.C.S. Eng.
Curator, and Pathologist to St. Mary's Hospital Medical School, London, &c.
(Publishers: LONGMANS, GREEN & Co., 39 Paternoster Row, London. Price 10s. 6d.).

Surgery and surgical pathology are both well taught at St. Mary's Hospital Medical School in Paddington, London. This book exemplifies the splendid basis of teaching upon sound pathology and well-studied principles of surgery, as they are expounded in the pathological museum and in the course of demonstrations carried out in that famous institution. As a trustworthy guide in Surgical Pathology, this little work of 440 pages has no rival.

THE "VOLUNTEER."

THIS is the title of a new weekly journal "devoted to the interests of volunteering in India." It is well edited and well got up, and judged by the pabulum offered in its first issue, we reckon that volunteers will find it both interesting and advantageous to rally round this organ of their craft. The whole question of volunteering needs ventilating, as both here and abroad the immense value of the unpaid military power of India is almost absolutely unknown, and where it is mentioned as an existing factor of strength to the Government, its intrinsic merits are very much under-rated and misunderstood. If our contemporary —to whom we heartily wish a long and prosperous career— will instantly publish an authorised census of the Anglo-Indian volunteer forces, and encourage the wider extension of volunteering, he will do an inestimable service to India and to the domiciled British community.

WELLCOME'S MEDICAL DIARY AND VISITING LIST.

THIS welcome annual visitor is fast becoming a most popular publication. It is a thoroughly well got up Diary and Visiting List which no physician can afford to be without unless he has provided himself with the old-fashioned and deservedly well established "LETTS." Messrs. Burroughs, Wellcome & Co.'s MEDICAL DIARY is quite as good and as useful as LETTS', but it comes out late and cannot therefore supersede LETTS', which is usually in the hands of publishers in India by the month of November. This fact ought to be borne in mind if WELLCOME'S DIARY is to find a place in the daily life work of every physician in India.

[illegible]

GOVERNMENT OF INDIA.

Surgn.-Major-Genl. J. Cleghorn, M.D., C.S.I., I. M. S. Dir.-Genl. I. M. S. and Sany. Commsr. with the Govt. of India, granted leave out of India for eight months.

Surgn.-Major-Genl. R. Harvey, M.D., M.S.O., R.N.C.P., I. M. S. Inspr.-Genl. Civil Hosps. and Principal Medical Officer, Punjab Command, to officiate as Dir.-Genl. I. M. S. and Sany. Commsr. with the Govt. of India.

Surgn.-Major R. Ross, I.M.S. (Madras) is placed on special duty under the Dir.-Genl. I. M. S. from 17th Feby. 1898.

The services of Surg.-Capt. C. N. Bensley, I. M. S., (Bengal) are placed permanently at the disposal of the Govt. of Burma.

The services of Surgn.-Lieut. H. J. Walton, M.B., F.R.C.S., I. M. S. (Bengal), are placed temply. at the disposal of the Govt. of the Punjab for employment on plague duty, from 12th Jany. 1898.

The services of Surgn.-Capt. J. W. Grant, M.B., C.M., I. M. S. (Bengal) are placed temply. at the disposal of the Foreign Dept. from 27th Dec. 1898.

Surgn.-Lieut-Col. Dhanjisha Narroji Porakh, I. M. S., Surgn. Gokuldas Tejpal Native Genl. Hosp., Bombay, retired from the service from the 14th March 1898.

Hony. Surgn.-Capt Daniel O'Leary, I. M. D, retired from the service from 21st Sep. 1897.

Asst. Surgn. Henry Hesterlow, M.D. has been transferred to the pension estab.

Asst. Surgn. Francis Joseph Salta, I. M. D. is dismissed from the service.

BENGAL GOVERNMENT.

Asst. Surgn. Jogendra Nath Bose did duty as an Inspt. Med Officer at the Plague Observation Camp at Kurdah Road Station, on the East Coast Ry., from 25th Augt. to 9th Oct, and from 20th Nov. to 20th Dec. 1897.

The services of Kumar Bhobendra Narayan, Offg. Civil Med. Officer of Darbhanga, are placed temply. at the disposal of the Cooch Behar State.

Asst Surgn. Nobin Chunder Dutt, Darbhanga Raj Hosp., is apptd temply to have med. charge of the civil station of Darbhanga

Miss Ida Brown and Miss Sarah Anthoni to be Inspg. Officers for the purposes of carrying out the provisions of the Epidemic Diseases Act, 1897, at Chakradharpur, Bengal-Nagpur Ry.

Asst Surgn. W Sherrington to be Inspg. Med. Officer at Mairwa, B. N.-W. Ry.

Asst Surgn. C A E Haegert to be an Inspg. Med. Officer at Chausa Stn., E. I Ry.

Mrs. B. Dass to be an Inspg. Officer for the purpose of carrying out the provisions of the Epidemic Diseases Act, 1897, at Damukdia

Dr. H. W. McCaully Hayes to act as Civil Med. Officer of Saran

Asst. Surgn Upendra Narain Roy, Chapra Dispy., held med charge of the civil station of Saran from 13th to 28th Jany. 1898.

Asst Surgn Hem Chunder Sen to act as Teacher of Materia Medica, Campbell Med. School.

Asst Surgn. Mohendro Nath Gupta, Rai Bahadur, Teacher of Materia Medica, Campbell Med. School, Sealdah, furlough for one year.

Asst. Surgn. Benode Behary Ghosal did supy. duty at the Med. College Hosp. from 22nd Dec. 1897 to 12th Jany. 1898.

Asst. Surgn. Chuni Lal Nundi, Cox's Bazar sub-div. and Dispy., leave for three months, 11th Jany. 1898.

Asst. Surgn. Nobin Chunder Dutt, Raj Hosp., Darbhanga, leave for one month.

Asst. Surgn. Jogeshwar Mukerjee, leave from the 3rd Sept. to 1st Dec. 1897.

Asst. Surgn. Nilkanto Chatterjee to do supy. duty at the Med. Coll., Calcutta, from 18th Feby. 1898.

PUNJAB GOVERNMENT.

The two months' leave on medical certificate granted to Hospl. Asst. Ghulam Nabi, from 26th Nov. 1897, is extended [illegible]

Hospl. Asst. Abdul Karim resumed charge Fatehabad Dispy. Delhi Dist., 17th Jany. 1898.

Hospl. Asst. Ahmad Hasan has obtained three months' privilege leave from 6th Dec. 1897.

The following transfers among Hosp. Assts. in the Hoshiarpur Dist. were made from the dates noted :—Hosp. Asst. Ishar Hussain, from Una to Ghanshankar Dispy., 4th Jany. 1898; Hosp. Asst. Abdul Rahman, from Ghanshankar to Nurpur Dispy., 7th Jany. 1898; Hosp. Asst. Sewant Rai, from Nurpur to Mahilpur Dispy., 8th Jany. 1898; Hosp. Asst. Nanak Chand, from Mahilpur to Una Dispy., 13th Jany. 1898.

Hosp. Asst. Umar-ud-din, [illegible] duty, Ludhiana, to Hoshiarpur from 12th Jany. 1898.

Hosp. Asst. Rahmat Ali reported himself to the Civil Surgn. Ludhiana, 16th Jany. 1898.

Hosp. Asst. Partab Singh resumed charge of his duties at the Isakel Dispy., Karnal Dist., 23rd Jany. 1898.

Hosp. Asst. Shaib Ditta Mal, Ludhiana, and Hosp. Asst. Mahr Narain, Jagraon Dispensary, that dist., were apptd. on special plague duty, Hoshiarpur Dist., from 6th and 7th Feby. 1898.

Hosp. Asst. Labha Mal, Jullundur, having passed the English qual. exam. is entitled to the higher rate of his grade from 10th Feby. 1898.

Hosp. Asst. Ganga Bishan Khanna having passed the English qual. exam. is entitled to the higher rate of the pay of his grade from 8th Nov. 1896.

Surgn.-Major S. F Bigger assumed charge civil med. duties of Kohat, 2nd Feby. 1898.

The following promotions and [illegible] among Civil Surgns. are published for information with effect from 31st Augt. 1898 :—

Surgn.-Major J. Clarke, Offg. Civil Surgn., to be Civil Surgn., 2nd class.

Surgn.-Capt. D. T. Lane will be treated as having been confirmed as Supdt. Chenawan Central Jail from 31st Augt. 1896.

Surgn.-Capt. H. M Morris, Offg. Civil Surgn., to be Civil Surgn., 2nd class.

Surgn.-Capt. D. T. Lane, to be Civil Surgn., 2nd class.

Surgn.-Capt. A. W. T Buist-Sparks and Surgn.-Capt H. Smith, Off. Civil Surgns., to be Civil Surgns., 2nd class

Surg.-Capt A. Coleman to be Civil Surgn., 2nd class, and Surgn.-Capt. H. Smith Civil Surgn. 2nd class, to revert to Offg. Civil Surgn.

Surgn.-Capt. A. W T Buist-Sparks, Civil Surgn., 2nd class to revert to Offg Civil Surgn.

BOMBAY GOVERNMENT.

Asst. Surgn. G. M. Dixon, L.M.S., privilege leave for two months

Asst. Surgn. Dorabsha Edalji Kothavala, L.M.S., to act as Supdt., and Med. Officer, Sind Gaog, from 23rd Jany. 1898.

Asst Surgn. P. A. Cordeiro has been attached to Monsieur Haffkine's Laboratory at Bombay for duty from 8th Jany. 1898.

The services of Surgn.-Col, G. W. R. Hay were replaced at the disposal of the Govt. of India from 11th Dec. 1897.

Asst. Surgn. E. S. Sharucha has been apptd., Med. Officer in charge Plague Flying Column No. 11 Mirad from 7th Feby. 1898.

Asst, Surgn. J. P. Wadia has been placed under the orders of the Health Officer of the Port of Bombay from 9th Feby. 1898

Surgn.-Major M. A. T. Collis, M.B., C.M., I. M. S., was on plague duty at Hubli from 9th to 13th Jany. 1898.

CENTRAL PROVINCES GOVERNMENT.

Asst. Surgn. Waman Vithal Kane, Mates Surgn., Mayo Hosp., Nagpur, to the post of Asst. to the Civil Surgn. Nagpur, from 4th to 28th Oct. 1897, and was re-apptd. as such from 1st Nov. 1897.

Asst. Surgn. Boidyanath Byanek, Inspg. Med. Officer of Relief Camps, Mandla dist., to do duty under Civil Surgn. Jubbulpore, from 27th Nov. 1897.

Asst. Surgn. Boidyanath Byanek to do duty under Civil Surgn., Nagpur, 6th Dec. 1897.

Asst. Surgn. Boidyanath Byanek was deputed on plague inspection duty at the Ry. Stn., Nagpur, from 9th to 18th Dec. 1897.

Asst. Surgn. Khirode Chandra Ghose, on plague duty at Burhampur, to do duty under Civil Surgn., Nagpur, from 14th Jany. 1898.

The services of the following Licentiates of the Temple

l. School, Patna, have been temply. entertained, as Civil sp. Assts. for plague &c., duty, and have been posted to the owing dists :—

Tripendranath Gupta, 20th Dec. 1897, Raipur; Sasthkur Mitra, 20th Dec. 1897, Raipur; Ali Ahmad, 22nd Dec. 7, Nagpur; Abdul Hamid, 22nd Dec. 1897, Nagpur; hid Hussain, 23rd Dec. 1897, Nagpur.

Hosp. Asst. Nilkant Narain to do duty under Civil Surgn., pur, from 20th Nov. to 24th Dec. 1897.

Hosp. Asst. Nilkant Narain to the Police Hosp. Raipur, m 24th Dec. 1897.

Hosp Asst. Lal Muhammad, Branch Dispy., Seoni dist., s change Lakhandon Poor-house, 17th Oct. 1897.

Hosp. Asst. Vithal Moreshwar to do duty under Civil gn., Saugor.

Hosp. Asst. Vithal Moreshwar to the Deori Branch Dispy., gor dist.

Hosp. Asst. Pratab Singh to duty under Civil Surgn. ger.

Hosp. Asst. Bhondulal to duty under Civil Surgn. gor.

Hosp. Asst. Bhondulal is placed on plague duty at the gor Ry. Stn. from 19th Oct.

Hosp. Asst. Abdul Rahim, Katol Branch Dispy., Nagpur ., to the City Branch Dispy., Saugor.

Hosp. Asst. Abdul Fattah Khan to the Katol Branch py.

Hosp. Asst. Deolal, Baloda Branch Dispy., Raipur dist, is missed the service from the date he was suspended by the il Surgn. Raipur.

Dr. Har Narayan Singh was deputed on plague duty, gor dist., from 17th Feby. to 28th Oct. 1897.

Hosp. Asst. Chandra Bhan to do duty under Civil Surgn. gor.

Hosp Asst Chandra Bhan was deputed on plague duty at a, Saugor Dist.

Hosp. Asst. Abdul Karim is temply. apptd to the Sehora nch Dispy., Jubbulpore dist

Hosp. Asst. Vithal Moreshwar to do duty under Civil gn., Saugor.

Hosp. Assts. Henry Peter and Devaraju Pillai, Burma ab., to Jubbulpore to do duty under Civil Surgn.

N.-W. P. AND OUDH GOVERNMENT

Asst. Surgn. Manmatha Nath Basu, from plague duty, rsapur, to Sadar Dispy., Mirzapur.

Asst. Surgn. Manmatha Nath Basu, Sadar Dispy., Mirzapur, plague duty at that station.

Hosp Asst, Sirajal Husain, Colvin Hosp., Allahabad, to lar Dispy., Mirzapur.

Surgn.-Major C. C. Vaid, Civil Surgn., Hardoi, was on cial duty in connection with the Pilgrims' Camp at nares from 7th to 10th and from 13th to 28th Jan. 1898.

Asst. Surgn. Suresh Chandra Ghose, Sadar Dispy., Hardoi, d charge civil med. duties of that dist. from 7th to 10th l from 13th to 28th Jany. 1898.

Babu Chanan Singh, L. M. S., to Civil Med. Dept. of these rvinces as an Asst. Surgn., 3rd grade, from 10th Jan. 8, and is posted to Saharanpur on reserve duty.

BURMA GOVERNMENT.

Hosp. Asst. R. Govindu Pillay is granted an extension of ve to 20th Jany. 1898.

Hosp. Asst. P. Govindu Pillay assumed charge Civil sp., Moulmein, 21st Jany. 1898.

Hosp. Asst. K. Kanaren assumed charge Genl. Hosp., yab, 6th Oct. 1897.

Hosp. Asst. K. Kanaren assumed charge of duties as dl. Officer, Arakan Hill Tracts, Paletwa, 18th Oct. 1897.

Hosp. Asst. P. C. Ghose assumed charge of duties as Med. ficer, Arakan Hill Tracts, 1st Dec. 1897.

Hosp. Asst. Bistoo Charan Das assumed charge Lock-up, gok, Ruby Mines dist 1st Jany. 1898.

Hosp. Asst. Amin Chand assumed charge Civil Hosp. ttkyina, 25th Jany. 1898.

Hosp. Asst. Raj Chander Barua relinquished charge Jail sp. Thayetmyo, 1st Feby. 1898.

Hosp. Asst Kutubdin assumed charge Jail Hosp., Thayetmo, 1st Feby. 1898.

Hosp. Asst. P. Mahapatra, three months' leave 17th Jany. 8.

Hosp. Asst. A. Rungaswami Iyer, leave for three months m 20th Oct. 1897.

G. G. O's.

Surgn.-Capt. S. E. Dunne, leave for 15 days, in extension.

The leave granted to Surgn.-Capt. A. O. Hubbard, I. M. S., is further extended by 4 days.

Surgn.-Capt. W. E. Hardy, leave for six months.

ASSAM GOVERNMENT.

Leave for six months is granted to Hosp. Asst. Sarat Chandra Banerji, in extension of the six months' leave granted, 2nd July 1897.

Hosp. Asst. Mahim Chandra Chaudhuri has passed the English Qual. Exam., 25th June 1898.

Hosp. Asst. Srinath Das, a supy. in the Khasi and Jaintia Hills dist. to the med. charge Nongpoh Dispy. in that dist., from 6th Feby. 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTH.

WHITEHOUSE.—On 14th Feb at Jeypore, Rajputana, the wife of John Whitehouse, M.B, C. M, of a son.

MARRIAGES.

GIFFARD—GROSE.—On 5th Feb., at St. George's Cathedral, Madras, by the Ven Archdeacon Elwes, assisted by the Rev A. A. Williams, Alice Millicent Grose, daughter of Hon. Mr. J. Grose, I. C. S, to Gerald Godfray Giffard, I.M.S.

WILSON—OWEN.—On 8th Feb., at St. John's Episcopal Church, Edinburgh, by the Rev G J. Cowley Brown, Incumbent, Andrew Robertson Wilson, M.A, M.B., C.M. (Edin.), of Trafford House, Liscard, Cheshire, younger son of the late Charles Edward Wilson, LL D, H. M. Senior Inspector of Schools, to Alice, daughter of the late Rev, Joseph Owen, D.D., Allahabad, India, and Mrs Owen, 21, Athole-crescent, Edinburgh.

DEATHS.

REMFRY.—On 11th Feb., at Truro, Cornwall, Leonard Remfry, M.A., M D, F.R.C.S, aged 36.

WILSON.—On 13th Feb, at Sitapur, Oudh, Rev. P. T. Wilson, M A., M.D., Missionary of the American Methodist Episcopal Church.

NOTICES TO CORRESPONDENTS.

J. F. F. (Bandiqui).—The whole subject of a special State diploma ranking below the L. M. S. degree of our Indian Universities, will shortly come under the consideration of the Council of the Indian Medical Association.

J. B. (Allahabad).—Retired but young Military and Civil Assistant Surgeons will find ready employment on the new railway lines that are being opened up in Egypt and South Africa. As far as we understand, the salaries for medical officers are good.

G. E. C. (Bandiqui).—Many thanks, next number.

Senior.—If junior Military Assistant Surgeons should not have the rank of Warrant Officers, then what about junior Army Surgeons? If your idea holds good, then Army Surgeons should not be Commissioned Officers. In no case can we ask for retrogression; it must be progress, upwards and onwards for our boys.

S. N. M (Malakand).—If Storekeepers of Hospitals are trained and qualified medical men, they can be admitted into the Indian Medical Association. Please read the Rules of the Association.

ORIGINAL ARTICLES.

THE LOCALISED NATURE OF THE MALARIAL POISON.

By Surgeon-Major R. R. H. Moore, M.D., A.M.S.
Jalapahar, Darjeeling.

There is one characteristic of the poison of malaria which, I venture to think, has a vast etiological bearing, and to which sufficient attention has never been paid.

This characteristic is its peculiarly localised nature.

By this expression I do not mean that the poison is given off from a few localised areas only; the word localised refers strictly to the *action* of the poison, not to the *place* from which it is evolved.

The injurious action of the poison is closely confined to the spot where it is generated, its striking distance is a small one, its influence is circumscribed, it is a stay-at-home poison which does not venture out to attack the traveller; but, like the spider, spins its webb and waits for its prey to come to it.

This is a fact of enormous significance from the etiological stand-point, and it is supported not by a few isolated observations only, but by a strong vein of well established opinion whose ramifications spread through almost the whole literature of the habits of malaria.

By giving to this peculiarity its full importance and studying it as a special entity, the issue becomes narrowed and the way is cleared for valuable investigation and reliable deductions. This simple aspect of the malarial question has never been studied in this way, and why? Because it has always been obscured by a mass of more or less contradictory, vague and unreliable statements, purely hypothetical, and which only gained a moment's acceptance on account of the uncertainty which surrounded the whole subject.

In a previous paper[1] I have endeavoured to show that the observations and arguments in support of the doctrine, that malaria is diffused through the atmosphere, and can be transported from place to place by the wind, are fallacious and unworthy of credence.

Once admit this and much of the obscurity is removed; the clouds lift and a clearer view presents itself to the observer.

The localised nature of the poison has to be studied under various aspects; it is the salient point in the observations that have been recorded regarding the immunity derived from sleeping at a slight elevation above the ground,—by higher levels, even when slight, being more healthy than lower levels—by the exemption of vessels lying off malarious coasts,—by the class distinctions which the disease draws,—and by its nocturnal habits.

In addition to these there are two other generally accepted ideas which bear more or less directly on this point, *viz.*, the supposed partial immunity enjoyed by natives,—and that new-comers to a malarious country are particularly susceptible to malaria.

I hope to be able to make it clear that these two ideas are erroneous, and have no foundation in fact.

The way in which my main thesis—the localised nature of the malarial poison—is expressed by modern French writers[2] is to be found in the following phrase "Son germe est étroitement lié au sol;" the poison is closely bound to the soil; this idea runs like a keynote throughout the whole of Kelsch and Kiener's work on malaria; it occurs over and over again in various forms which shows the importance attached to it.

In their summing up they say:—"Malaria differs from dysentery and typhoid fever, which so often occur under similar circumstances, by the fixity and permanance of its places of origin; its germ is closely bound to the soil."

Before proceeding further, it is necessary to understand that in malarious countries the malarial poison is not confined to well defined localities; it exists everywhere, some places may be more malarious than others, but no place is entirely exempt. That this is true has been amply proved for France; and if it is so in a temperate climate of this kind, and in a country which hardly deserves the name malarious, how much more so must it be in tropical and sub-tropical climates?

Regarding France it is well-known that whenever troops go out into camp, even in places supposed to be free from malaria, the disease appears.

It may be noted that they almost invariably go into camp in the late summer or early autumn months.

On this subject Kelsch and Kiener[3] give us the following information (p. 798):—"The development of malarial fevers in all camps, even in those which are established in the midst of plains reputedly healthy, proves that the germs of malaria, far from being confined exclusively to certain foci, are disseminated every where" In another place they say:—"These facts attest the existence of local fever-causing influences which are present in all camps, and often with remarkable intensity;" and again, "in our opinion nothing better demonstrates the influence of camps on the genesis of malaria than the epidemic which sprung up in the 10th Battalion de Chasseurs à pied encamped in huts, in the neighbourhood of Saint-Dié. Malarial fevers are very rare in the valley of the Meurthe, which presents none of the telluric conditions in presence of which it usually arises; yet these fevers developed in the form of spring and summer epidemics for three consecutive years, amongst the soldiers. In the years 1881 and 1882, the proportion of those attacked amounted to one-fifteenth and one-sixteenth of the whole strength; yet during this time not a single case of malarial fever was observed in the civil population"

These facts are very striking and very important, and are alone sufficient to prove the localised nature of the poison.

They amount to this, that the malarial poison exists throughout the whole of France, why then does not every one suffer from the disease? Because the poison is localised; it is not diffused in the air.

Why do the soldiers get it when in camp? Because they go to the poison, they lie either upon the ground or else very close to it, while the inhabitants in their well-built houses are exempt.

In Algiers, the same authors say "malarial fevers are everywhere."

Of India, Davidson[4] says:—"throughout the whole of India there is no province or extensive district entirely free from malarious diseases."

We may then, I think, take it for granted that in malarious countries the poison is to be found everywhere.

A slight elevation gives immunity from malarial fever. The elevation may be of two kinds: a raised structure or elevated ground.

It is a well-known fact that the natives of many malarious countries live in raised structures, and it has long been accepted that by doing so they escape malarial fevers. HUMBOLDT mentions that this custom prevails amongst the Guaranos of the Orinoco. In New Guinea, WALLACE says that the houses are elevated 15 feet above the ground on a forest of poles.

In Burma we find the same thing, and the following incident was related to me by Surgeon-Major FREYER, A. M. S, regarding it. He and some other officers were going to occupy a Burmese house. All the officers slept above, but in spite of Surgeon-Major FREYER's warning the servants, except his own, were obliged to sleep below; the result was that they all got fever, and more than half of them died, while none of those who slept above were affected.

JACQUOT[4] tells us that, "in Italy and along the shores of the Mediterranean, the ground floors are never occupied by those who can avoid them, that when the Corsican peasants are obliged in the autumn to leave their hill towns for the purpose of working in the fields below, they never fail if possible, to return home in the evening; when, however, the distance is too far, they construct temporary cabins in the trees to which they ascend for the night."

And TOMMASI-CRUDELI mentions the fact that people sleeping a few metres above the ground do not contract fever.

It is however unnecessary to enlarge further on such a well-established fact.

Regarding elevated ground, it is well-known that the inhabitants of mountainous countries never build on low ground; they avoid the bottoms of ravines and erect their dwellings on the hill sides.

PRINGLE[5] mentions a case where, in the midst of a malarial epidemic, a slight elevation gave comparative immunity.

"After the campaign in Brabant in 1748," he says, "our army suffered very severely from malarial fevers in cantonments near Eyndoven. There were two villages near Eyndoven called Lund and Zalst, the one ten and the other 14 feet, above the water level, and it was observable that the soldiers kept their health much better in both these places than in any other of the cantonments."

The country in which the cantonments were situated, it may be remarked, consisted of flat barren sand with water within two or three feet of the surface.

I need not, however, say any more on this subject, as my object is not to prove what is universally admitted, but merely to draw attention to these facts as casting a sidelight upon the localised nature of the malarial poison.

I have in a previous number[1] given instances of the immunity enjoyed by the crews of vessels lying close to malarious coasts, so will pass on to what I call the class distinctions which "malaria" draws.

CLASS DISTINCTIONS.

This peculiarity was noticed by PRINGLE[5] regarding the fever in Holland. He says:—"The officers were not so subject to it as the common men; * * the cavalry who had cloaks * * * were less liable to fall ill; others who belonged to the army but lay in quarters, were least of all affected."

The same thing was noticed in Hong-Kong by Surgeons HENEMAN[6] and SNELL[7], who remarked that the officers suffered less than the men, and the merchants least of all.

SNELL[7] also says that "while the soldiers doing ordinary duty were decimated by fever, their comrades, who were in prison, many of them drunkards, some of them undergoing long sentences, remained in good health." Of course the prisoners had to be well housed for security.

Two other cases of some interest are mentioned by DAVY:[8] "In Ceylon during the rebellion, October 1817 to October 1818, at one station in the district of Welasse, every white soldier sent there was attacked with fever except the Commanding Officer and the medical officer, who were least exposed," again in the same rebellion, "a party, seventy strong, was formed relieve a post in danger, they had to fight their way there and back, and sleep one night in the open air; every man was taken into hospital with fever, except the Commanding Officer."

The same holds good in India at the present day. Officers, women and children suffer less than men.

In 1895 the admissions for intermittent fever per 1,000 in the Bengal Command were for men, 249·9; women, 133·9; children, 82·8.

All this points to the fact that the poison is not diffused, it is extremely localised, and those suffer most who are most exposed to it.

NOCTURNAL HABIT.

That malaria is nocturnal no one denies and this is a very remarkable thing, in respect of which malaria stands apart from all other specific diseases.

Considering that malarial fever is supposed to have an incubation stage of somewhere about 14 days, for it is very indefinite, how has it been possible to decide whether the poison entered the system by day or night?

The nocturnal habit is, in my opinion, established on firm grounds, and argues against the incubation theory, which is not.

The best and least controversial observations in support of it are afforded by the experiences of ships touching at malarious ports; in these cases there is a general consensus of opinion, that when the crews go on shore, it is only those who pass the night there who contract fever.

Observations of the kind have been recorded by FERGUSON[9] BLANE,[10] DAVY,[11] DUTROULEAU,[12] and the following will be found in LIND[13].

"Two men-of-war the "Phœnix" and the "Hound," made the same voyage to the Gambia, and stopped at the same time at St. THOMAS, though both crews were on shore during several days hauling and careening, and taking in water, it was remarked that only those who stayed on shore at night took fever."

[illegible] has said of the Roman Campagna that one may walk with impunity by day, where to spend a few hours after sunset would mean severe and perhaps fatal fever.

It is a nice problem what becomes of the poison during the day time, does it die? Or does it return to the ground to re-issue the following evening? No one has been able to tell us.—

One thing, however, appears certain, and that is, that it does not travel, and is not conveyed from place to place.

A very pretty example bearing out the main contention of the paper was recorded in this journal, January 1st 1898, by Surgeon Major RONALD ROSS, I. M. S., regarding a slight epidemic that occurred in the men of his regiment at Secundrabad.

"With respect to the causation of the disease," he says, "it may be stated that the regiment in which the cases occured, numbers some 800 persons, and is stationed in lines of huts about a mile from the marshy origin of a large tank. On first thoughts the marsh would be declared at once to be the origin of the malaria, but there are reasons to traverse this view."

"For instance, the disease showed a tendency to infect certain portions of the lines more than others, though all portions are equally exposed to the marsh air. Thus out of 70 recruits who lived together in a stone built house close to the rest of the lines, not one was attacked, though 100 of the remaining 730 men suffered. Again, in two houses all the inmates suffered, namely, father, mother, and children." "Such facts as these," he adds, "seem to point to a very local origin of the disease."

This is by no means an exceptional case, numbers of similar instances are to be found in the literature of malaria.

The recruits, we see, many probably new-comers to the place, were exempt They were lodged in a stone-built house. It is a curious thing about malaria, and a thing to which several examples given in this paper point, that it has an intense dislike to a well-built house.

In the case of Hong-Kong, in this Journal for 16th December 1897, I have showed in what a marked manner the disease diminished as soon as the troops were lodged in fairly well-built barracks

Partial immunity enjoyed by natives; and new-comers particularly susceptible to the disease.

Perhaps of all the many varied ideas which pass for current coin in the malarial market, there is none whose value is less questioned than the partial immunity enjoyed by the native.

In my opinion, however, there is not a particle of truth in it; there is no such thing as immunity, partial or otherwise, where malaria is concerned.

If figures can prove anything, the following table proves this up to the hilt.

Table showing the annual admissions per 1,000 for Intermittent Fever amongst European and Native Troops in India. Average annual strength. European troops over 65,000. Natives over 125,000.

Year.	European Troops. India.	Bengal.	Madras.	Bombay.	Native Troops. India.	Bengal.	Madras.	Bombay.
1890	384·1	400·2	277·0	[illegible]	[illegible]	[illegible]	[illegible]	461·8
1891	542·9	369·1	248·9	[illegible]	427·5	448·1	[illegible]	[illegible]
1892	439·1	482·0	166·3	[illegible]	390·0	[illegible]	241·8	565·0
1893	396·5	410·2	129·1	443·6	[illegible]	311·1	337·3	521·8
1894	411·9	484·4	188·7	461·9	370·4	409·7	[illegible]	532·8
1895	386·0	249·9	118·3	[illegible]	[illegible]	[illegible]	[illegible]	248·8
Years of excess European troops	Nil	Nil	Nil	Nil	..	..	..	..
Years of excess Native troops.	..	..		..	Nil	Nil	6	5

This table is compiled from the Annual Reports of the Sanitary Commissioner with the Government of India, and the numbers are sufficiently large to remove all objections on that score.

It shows us that while in the whole of India, and in Bengal, the disease preponderated equally during the six years tabulated, the Europeans and natives having each three years of excess, in Bombay the natives suffered most in five out of the six years, and in Madras they suffered most every year without exception

Now when we consider that about 15,000 fresh European troops land in India every year, who are supposed to be particularly susceptible to the disease, and that in spite of this, the native troops actually suffer more from malaria than the European troops, there is only one conclusion to be drawn, and that is, that,

The supposed Partial Immunity enjoyed by the Native does not exist.

It is easy enough to understand how the idea arose; at first the negro was supposed to be altogether immune, why? Europeans who visited and travelled in their country got fever, the natives apparently did not, therefore they were immune. But no attention was paid to the important points, that while the natives were living according to their usual customs and habits, the travellers and visitors were exposing themselves in all sorts of ways, perhaps in camps or in hastily constructed houses, and taking all sorts of liberties in a climate and in a country they did not understand.

Of course the idea of the immunity of the negro is now exploded.

These ideas have always found a ready acceptance, because they tended to bring malarial fevers into line with what is known of other specific fevers, as for instance, the fact that small-pox, measles, and scarlet fever rage with special virulence, when introduced into a place where they were formerly unknown.

The opinion that new-comers are specially susceptible to malaria, to which KELSCH and KIENER attach some importance, is founded upon erroneous or misinterpreted observations. In support of it, for instance, these authors quote PRINGLE to the following effect (p. 807):—"PRINGLE was astonished to observe that the English

troops, on their campaigns in Holland, paid a much larger tribute to malarial fever than the inhabitants.

Since that time, the observation has been repeated many times, notably in the Flushing Expedition, when fever decimated the English expeditionary corps, while it hardly affected the general population.

These and many other observations of the same kind are supposed to demonstrate that, given the same amount of exposure to the malarial poison, new-comers, in all countries are more susceptible to malaria than the inhabitants.

The crux is in the words "*given the same amount of exposure*," for if the exposure cannot be shown to be the same, the observations prove nothing, and yet who can say that it was the same? Is it not very obvious that it was altogether different? Suppose the comfortable burgher of Holland had been turned out into the English cantonments, situated on bare sandy ground with water only a foot or two below the surface, (FERGUSON says that at Rosendaal and Oosterhout it was only a few inches below), and the English troops housed in their well-built dwellings, who would have suffered most from fever? Most people will, I think, be ready to admit that it would not be the new-comers.

The question is altogether one of exposure; the troops were exposed to the poison, the others were not. If there can possibly be any doubt on the point, the experience of the troops in France must be sufficient to dispel it once and for all; for it cannot possibly be argued that the reason they suffer more from malaria than the civil population is due to the fact of their being new comers. If the troops and the civil population were to change places, the fever incidence would also change; the *poison* is localised, those living under the conditions inseparable from camp life go to the poison, the others do not.

Finally, take the case of the Wanowrie and Ghorpuri Barracks in Poona.

"The average admissions from paroxysmal fevers in these two barracks during a period of eleven years was :—

Ghorpuri, 652·09.
Wanowrie, 324·85.

This instance shows the influence of local conditions in the causation of fever. ("DAVIDSON.")

Now I will venture to say that no matter what troops are put into Ghorpuri Barracks, they will suffer more from malaria than any other body of troops in Wanowrie.

The reason is as simple as the fact is clear; Ghorpuri is situated on low-lying badly-drained ground, while the opposite conditions prevail at Wanowrie, though they are only about a mile apart.

The question is only one of exposure to a very localised insanitary influence.

We all know that many Europeans spend many years in India without contracting fever; it is not because there is no malaria where they happened to live. It is also well-known that by taking a few simple precautions Europeans can, and often do, traverse very malarious places with impunity, as Dr. BLANC and Mr. PRIDEAUX did in Abyssinia.

When marshes cause malarial fevers, it is only those living close to the marsh who get the disease, the same holds good for malaria arising from rice cultivation and inundations.

We find an abundance of well-authenticated facts in support of the localised nature of the poison; this same poison, which has been supposed on the most flimsy evidence to sweep across the country side and ascend mountains on the bosom of the wind!

In tropical countries a very slight degree of exposure is sufficient, in less malarious, or in other words, in temperate climates a man must be on the ground to be affected. A man sleeping in the open gets fever; another in a house close by is exempt. In colder and non-malarious countries, we know that sleeping on the open ground is not conducive to health, but the diseases which would be likely to arise from it, are not to be found amongst the specific fevers.

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2. Kelsch and Kiener, Maladies des pays Chauds.
3. Geographical Pathology, p. 312.
4. Jacquot. Fievres a Quinquina, p. 9.
5. Pringle. Diseases of the Army.
6 Hensman. A. M. D. Report 1866.
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8. Davy. Diseases of the Army.
9. Ferguson. Ed. Jour Vols 59, 60, and Trans. Ro. Soc. Edin, 1820.
10. Blanc. Diseases of Seamen
11. Dutrouleau. Traite des Maladies des European dans les pays Chauds, 1868.
12. Lind. Essay on Diseases Incidental to Europeans in Hot Climates.

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A NOTE ON ABRUS POISONING.

BY SURGEON-MAJOR G. M. GILES, M.D, Lond, F.R.C.S, Eng, I.M.S.
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THE subject of abrus poisoning is one of such considerable medico-legal interest in India that it is somewhat surprising that more has not been written on the subject; but the only contribution of any importance that I can recall is the valuable and laborious investigation, published in pamphlet form, by Surgeon-Majors WARDEN and WADDELL some 14 years ago.* Their work was mainly directed to the determination of the question as to whether the poisonous effects of abrus were due to the intrinsic effects of the seeds themselves, or to the products of a fermentation within them, arising from the action of *bacilli* that had been described by certain observers. It may, I think, be conceded that they completely disposed of the bacillar theory, and clearly demonstrated that the peculiar effects of the drug are due to a peculiar body isolated by them, which they named abrin.

This investigation dealt mainly with the chemical and physiological side of the question to which I have little or nothing to add, and it is mainly to its medico-legal side, and especially the detection of the drug in the body of the victim to which I would desire to draw attention; for although there can be no doubt that thousands of cattle are yearly destroyed in this way, and it is only too probable that abrus is occasionally the agent employed in the commission of murder. I have met with several officers of considerable Indian standing who had never so much as heard of the subject.

Everyone knows the pretty red and black seeds used as weights by goldsmiths in this country—"*ratti*" as they are termed.

* The non-bacillar nature of abrus poison. C. J. H. Warden and L. A. Waddell. Calcutta, Bengal Secretariat Press, 1884.

[illegible] produces a small tree, *Abrus* [illegible] been introduced into the Indian [illegible] as a substitute for liquorice. The root [illegible] part of the plant used for this purpose.

As a matter of fact, both the root and the seeds can be eaten either by man or animals with perfect impunity, but if introduced beneath the skin, they produce a train of symptoms which result, in the course of two or three days, in death.

The local reaction is however so small, and the early symptoms so obscure and little noticeable that death appears to be extremely sudden. In spite of this, however, they are so little like the symptoms of ordinary poisoning that, in the majority of cases, no suspicion is aroused.

This peculiar crime is, as a matter of fact, the indirect outcome of the sacredness of cow life in India, combined with the fact that the Hindu is quite willing to shelter his tender feet in leather shoes provided he has nothing to do with their manufacture. As the hides of animals that have succumbed to disease are naturally not of the best quality, and the supply is limited and uncertain, the Chamars secretly poison cattle with abrus needles in order to provide skins as required in good condition.

The unfortunate cultivator is thus robbed of his means of subsistence, so that the Chamar may reap the small profit he gains on preparing the hide. Unscrupulous as the crime is from the ordinary point of view, it is doubly so from a Hindu stand-point, and in any other country in the world, public opinion would secure the detection of the miscreants with the same certainty that a vulpicide would be tracked down in an English hunting county.

The Chamar's *modus operandi* is as follows :—The seeds are first carefully husked and are then very finely ground on a curry stone, and mixed into a stiff paste with a little water. The paste is then rolled into small conical masses, each weighing dry about 15 grains They measure about 1½ inches in length by about ¼ inch in diameter at the base, and at the other end are brought to a very sharp point. When dry, these masses are surprisingly hard and are quite capable of being driven into the skin after the fashion of an arrowhead. It is likely enough that some of these experts add other ingredients, but experiment 2 shows that they have no more effect on the result than the spices and filth the Indian rotiwallah loves to add to his leaven, and as a matter of fact, I could find no trace of any thing else but finely ground abrus seed in a set of needles taken by the police from a cattle poisoner who was convicted in this district. A small piece of hedgestick about ¼ inch thick and 4 inches long is hollowed out at each end to a depth of about ¼ inch, the diameter of the hole being about the same as the depth, and the *suis* are wedged into these holes by means of a strip of rag bound round their base, the object being to hold it just firmly enough to enable it to be struck into the animal, but yet not so tightly as to prevent its remaining in the wound [illegible] blow. Armed [illegible] the poisoner [illegible] makes a second stab by merely turning the [illegible] before the animal has time to move. Thus accoutred, the Chamar creeps up to his victim and plants the fatal *sui* in the tissues; the part chosen being generally the left side of the neck, just in front of the shoulder. As a general rule, only about half an inch of the slender, pointed part penetrates the skin; the rest, as a rule, being broken off flush with the wound. Speaking generally, I doubt if more than two or three grains are introduced fairly beneath the skin, so that, assuming both strokes to reach home, the maximum dose must be about 6 grains and the minimum about 2 grains; but probably the smaller dose is sufficient to prove fatal in the majority of cases.

My prisoner, who, once convicted, was quite willing to describe his method of working, states that, as a rule, the animal dies within three or four days of the blow, but is only obviously ill for a few hours before the fatal termination. Some, of course, escape after a few days' illness, but two out of three of those operated on, die.

About three years ago, an animal of my own was destroyed in this way. One morning, the *gwalla* reported that the yield of milk was less than was customary, but the assertion was regarded as one of the customary wiles of these gentry to secure a larger proportion of the milk for their own use, especially as the cow seemed to be quite in its usual health. The next day the yield was even less, but there was nothing in the appearance of the cow to suggest illness, as it was calmly ruminating in its usual fashion. Towards evening, however, the animal was obviously ill and weak, but showed no obvious indications of distress, and I was still under the idea that the animal's condition was due to some malpractice on the part of the *gwalla*.

The next morning the cow was found dead. My attention having been drawn to the subject by a complimentary copy of Drs. WARDEN and WADDELLS' work sent me long ago, by the latter, I examined the body very carefully, and with some difficulty discovered on the right side of the neck a small œdematous swelling, in the centre of which was what appeared to be a small abrasion, just such as might be inflicted by the puncture of a thorn or by an irritated insect bite. On incising this swelling, I without any difficulty found imbedded in the bones some paste-like material, which I afterwards identified as powdered abrus seed, by comparison of the microscopical appearances with a section of a seed. On opening the body some irritative changes could be made out in the intestine, but speaking generally, there was really nothing to suggest either disease or poison in any of the organs. Such deviations from the normal as were visible agreed well with the appearances described in the pamphlet, but were none of such a character as to attract attention, unless specially looked for.

The poisoner was never traced, but I took care that no Chamar should benefit in the least by either hide or meat, by burying the carcase a good six feet deep without their assistance. If Hindus who lost cattle under suspicious circumstances uniformly pursued this plan, the crime would probably die out.

At the commencement of June last my attention was again called to the matter by a very complete set of

abrus poisoning implements being sent me by the magistrate, with the enquiry as to whether they contained anything capable of being used in cattle poisoning. The previous instance of my own cow having led to my studying the microscopical characteristics of abrus seed as found in the tissues, I determined to investigate the case myself.

The set of implements was a very complete one, and consisted of a couple of the handles already described with strips of rag tucked into the cavities in their ends, ready for use, and about a dozen abrus needles carefully stocked in a neat little bag made of a piece of an old *dhoti*.

In order to determine the composition of the *suis*, a portion of one was softened in water and examined under the microscope in comparison with a section of a genuine abrus seed; and, as far as I could see, the *suis* contained no material that was not easily referable to some part or other of the husked seed.

To establish the toxicity of the material, the following experiments were conducted:—

Two kids were taken, and a portion of a *sui* introduced beneath the skin of the one and a similar quantity of abrus powder beneath that of the other.

As will be seen, the symptoms and *post-mortem* appearances were absolutely identical in both cases.

For the details of the symptoms exhibited by the animals under experiment, I am indebted to one of my assistants, GAJADER TIWARI, who bestowed great pains in keeping the animals under continuous observation.

Experiment 1.—14th June 1897 at 8 A.M. A healthy kid weighing 8 lbs was taken, its temperature being 103·8. A punctured wound was made in the skin of the neck by thrusting a narrow Paget's bistoury obliquely beneath the skin for about 1¼ inches.

A morsel of the "*sui*" confiscated from the cattle poisoner, weighing 1 grain, was introduced into the track of this wound and pushed in as deeply as possible by means of a director. In the preparation of the instruments and of the animal all ordinary antiseptic precautions were observed, but the *sui* material was of course just as it was obtained from the poisoner.

At 11 A.M. it took the teat with its usual appetite, and at noon it still seemed none the worse for the dose. At 1 P.M. it was still walking about, but was seen to be shivering violently. At 4 P.M. it again sucked a little milk, but was obviously feeble.—At 6 P.M. the temperature was 106°; at 6-30 P.M., it again took a little milk. There had evidently been but little urine evacuated, as it had gained half a pound in weight since the morning. The weakness had greatly increased, and it was bleating as if in distress. At 10 P.M., it was bleating continuously, and frequently fell when attempting to stand. At midnight it was shivering violently and unable to rise: if placed on its feet, it at once fell, and it could not even lift its head from the ground. Half an hour later it attempted to suck but soon after became unconscious, though still bleating faintly every four or five minutes. It died at 2 P.M.

Post-mortem.—There was little abnormal to be observed. Both pleural cavities contained a considerable amount of clear straw coloured fluid, and the lungs were somewhat congested and of a peculiar pinkish color. There was no fluid in the pericardium. The heart was relaxed, and its cavities filled with dark coagulated blood. Locally only a little œdema could be made out; the tissues being rather paler than normal. On slitting up the track of the puncture the remains of the *sui* softened down to a paste could easily be made out.

Experiment 2.—A healthy kid weighing 6 lbs. was treated in the same way at 8-30 A.M. on 14th June, the only difference being that, in place of the *sui* material, a grain weight of powdered but unhusked abrus seed was introduced. The course of symptoms was almost exactly similar to the first case.

It took milk at 11 A.M., and at 1 P.M. was seen to be shivering violently. At 4 P.M. it again sucked and was beginning to bleat. At 6 P.M. its temperature was 103·2. There was great weakness and it could not take the teat. At 9 it was bleating continuously, and by midnight was in a helpless condition. It also died about 2 P.M. On post-mortem the appearances were identical with those observed in the first experiment.

The condition of the heart and lungs was the same, and there was the same amount of pleural effusion and absence of local reaction.

Experiment 3.—On 16th June, a healthy pariah bitch weighing 29lbs. was taken. Temperature 101·6. In view of the very rapidly fatal issue of the first two experiments, I determined to employ a very small dose and accordingly introduced beneath the skin, after the method followed in the two first experiments, one centigramme of *sui* material carefully weighed in a chemical balance. This was done at 7 30 A.M., and up to 3 P.M., no symptoms were observable, but at half past three she began to shiver and this shivering continued till 6 P.M., when it ceased. At 5 P.M. the temperature was 106 2. At 1 A.M. she was very restless, walking about as far as her chain would allow, and at 6 A.M, the shivering returned. There was a certain amount of œdematous swelling about the site of the puncture, the ears were drooping and the animal looking depressed and ill. At 7 30 A.M. the temperature was 105 4 and she ate a little bread and milk. At half past eight the shivering had ceased, but she was ill and weak all day. At 5 P.M. the temperature was 104·4, ate a chupatti and 8 oz. milk. All night was very quiet and difficult to rouse.

18th June.—Morning temperature 105·4. The swelling of the neck has increased; the animal is very weak and with difficulty can be made to stand.

Evening temperature 105 2. The swelling of the neck is very marked; she is weaker and refuses all food. If put on her feet, she stands for a little while and then falls. The ears and neck are drooping, and the animal very ill, but no definite paralysis can be made out, but only a general extreme weakness. The pupils are somewhat dilated.

19th June.—Morning symptoms much the same; temperature 104·2, in evening 104·2; she is better, and can get up without help; drank a little milk.

20th June.—Is better; temperature 104; evening temperature 103·4, and is taking a little food.

21st June.—Morning temperature 103.8; swelling of neck less; the animal is more lively and obviously recovering, and takes food fairly well. Evening temperature 102.

22nd June.—Seems nearly well and eats with appetite; evening temperature 102. There is a little discharge of blood-stained matter from the wound, which hitherto has remained quite dry.

23rd June.—Quite well; temperature 102; weight 26 lbs. There is no discharge.

24th June.—Temperature 101.6. There is some discharge from the wound. This discharge continued for a couple of weeks from a small sinus along the course of the puncture, but there was never any diffused suppuration, or any greater discharge than would be naturally set up by a small foreign body introduced beneath the skin. Now while, in the main, the symptoms exhibited by these animals agree with those described by WARDEN and WADDELL, *loc. cit*, they differ in this very important particular, *viz.*, that while these authors found the temperature uniformly depressed, in all my three cases there was shivering, with a marked rise of bodily temperature. An observer knowing nothing of the scrap of vegetable tissue in the neck would have certainly concluded that these animals were suffering from an acute septicæmia. That this could hardly have been due to simultaneous infection with any of the pyogenic bacteria is shown by the absence of any suppuration worthy of the name in the dog, which after a severe struggle for life, recovered. In this animal, no suppuration occurred till it was practically out of danger, and the scanty discharge that appeared during convalescence can hardly have been due to anything but a secondary infection of the wound tract, nor would its amount at any time have sufficed to account for any appreciable degree of fever

It is true that I purposely avoided any attempt at sterilizing the material introduced beneath the skin, because the active principle, *abrin*, isolated by WARDEN and WADDELL, was shown by these authors to be so unstable as to be rendered inert by any of the ordinary methods of sterilization

It is possible that the difference of the species of animal experimented upon may be the origin of this discrepancy, for these gentlemen made their observations upon fowls and cats, while I found kids and a dog more conveniently obtainable

The point, however, which I wish more especially to lead up to is the practical one of the detection of the evidences of the crime in the bodies of the poisoned cattle.

My confidential captive informs me that the spot struck at is almost universally the comparatively delicate skin of the neck, where the stroke can pin it against the projection of the shoulder, and that it is very rare for the blow to be attempted to be landed in any other position. Further, from obvious considerations, the right side is that generally attacked. In all cases therefore of inexplicable cattle mortality, this portion of the integument should be most carefully scrutinized, and if no indication of a puncture be perceptible externally, the skin should be carefully reflected, when the small extravasation at the site of the inoculation will indicate its position in a most easily recognizable fashion.

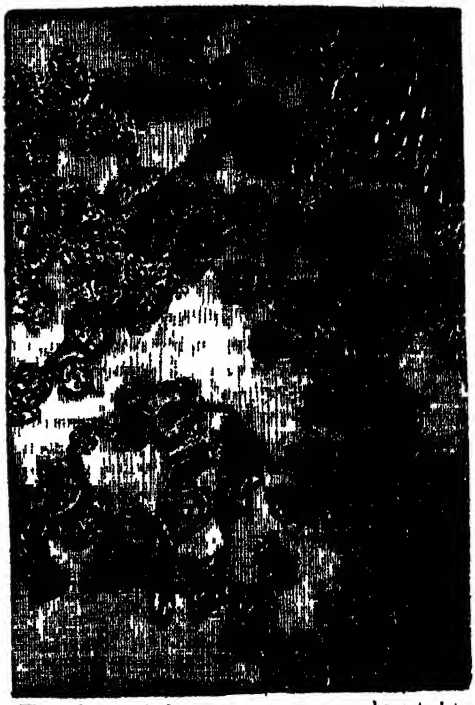
The puncture, having been thus discovered, should be carefully slit open from the raw side, when no difficulty will be experienced in discovering the abrus paste, which looks much like a morsel of softened chupatti imbedded in the tissues.

If a little of this material be taken up and placed beneath the microscope, it will be found that the seed has been so finely and carefully powdered that it is resolved into its component cells.

The portion of the seed used by the prisoner consists of the bulky cotyledons only, the rest of the embryo being so small that it may be neglected.

These cotyledons are composed of a peculiarly hard sclerenchyma, which has a very characteristic appearance The cells have very thick walls which are pierced by five or six tubules to admit of continuity of the protoplasm of adjacent cells. Though ivory hard, the cell wall is almost colorless, and of very uniform transparent structure, no sign of lamination being observable

These appearances are well shown in the microphotograph which accompanies this note, the tubules being well shown in a sharply focussed cell near the middle of the plate. The negative was taken from the pulp remaining in the wound of the kid which was killed by one of the confiscated "*sus*," and will, I think, form a good guide to the recognition of the material as found in poisoned cattle.



The microscopical appearances are so characteristic, while the chemical re-actions of abria are of such a general character that, in the present state of our knowledge, it would appear better to rely on the former alone

The state of the law with regard to this peculiar and dastardly crime is most unsatisfactory. From the nature of the case, it is well nigh impossible to secure evidence of the actual commission of the crime, and the mere possession of the implements is unfortunately not criminal It is obvious, however, that outside a technical museum, or the cabinet of the medico-legal expert, such things can have no place in the legitimate possessions of any honest person, and in view of the immense amount of loss annually inflicted on the unfortunate cultivator, the matter

[illegible] importance to [illegible]
[illegible] Act, making the more [illegible]
[illegible] a serious criminal offence.

The subject of abrus poisoning is one which deserves further study. There can be no doubt that the seeds against presents some resemblance to snake poison which is another example of a living but not bacterial poisonous agent. In view of recent researches in snake venom, may it not be just possible to produce immunity and perhaps an antitoxin? What again is the exact minimum lethal dose for an ox? And what are the exact symptoms and minuter pathological changes observable in wounded animals? Are any animals naturally immune to the effects of abrus?

May not the injection of certain animal secretions such as bile act as an antidote? These are all points well worthy of investigation, but I had neither time nor the energy of health to take them up, as is so often the case in this tantalizing country, where problems of a most interesting character are continually cropping up, but one is debarred from attacking them by the pressure of official work, and the lassitude of a tropical existence.

THE DISEASES OF WOMEN A HUNDRED YEARS AGO AND TO-DAY.

By J. Morton, M.D., L.R.C.P. & S. Edin., L.F.P. & S. Glas.

Muscovia.

3. Cervical Leucorrhœa.—The discharge that comes from the canal of the cervix uteri is transparent, *like unboiled white of egg*, very tenacious and of alkaline reaction. It may still present these characters, as it escapes from the pudenda, but it generally becomes somewhat clouded as it passes through the vaginal canal, and gets acted upon by the acid secretion from the vaginal walls. Independently of this change in the vagina, it is sometimes found already more or less opaque as it lies within the cervical canal, and may be seen of a yellowish or greenish or reddish tint in various cases. The clear cervical leucorrhœa is seen under the microscope to be made up of a viscid magma, having entangled in it large numbers of columnar epithelial cells, which have a tendency to arrange themselves in rows. These are easily seen to be ciliated epithelial cells, that cover the normal mucous membrane, but deprived of the most part of their cilia. They are accompanied by smaller rounded cells, like mucous corpuscles or wandering cells, partly derived from the interior of the crypts, and partly shed from the general surface from which the epithelium has been removed. In almost all cases some of the epithelial cells and mucous corpuscles are charged with fatty particles and surrounded with granules, resulting from the breaking down of some of their number. The more turbid the fluid, the more the cells are found to have undergone such degeneration; and where the discharge is profuse, fluid, and of yellowish color, it has more the characters of a purulent fluid in which the relatively few cylindrical cells are changed in form, becoming oval or rounded, and nearly all reduced to a compound granular mass. The more deeply tinted discharges owe their discoloration to the admixture of blood, the red corpuscles of which can easily be recognised.

[illegible] of variation. It may be found in females of any age, but specially affects women during their reproductive history, and more especially those who have been mothers. We can understand the special liability of the cervix to catarrhal affections, when we remember that all intra-uterine discharges pass through, and may irritate it, that it is exposed to damage during the transit of the fœtus in parturition; that vaginal affections easily pass into it by continuity of structure; and that it may readily be injured by foreign bodies in the vaginal canal or even by fretting of its orifice against the vaginal wall in cases of displacement or excessive mobility.

4. Intra-uterine leucorrhœa.—Here also the discharge is transparent, like white of egg, and alkaline in its reaction, but is more fluid than the secretion from the cervical canal, and may escape as clear liquid from the genital fissure. In cases of long standing, more particularly where there exists some organic disease of the uterine parietes, the fluid becomes turbid, purulent, and more frequently than in any other variety of leucorrhœa tinged with blood, even alternating with irregular discharges of blood. Under the microscope, we see many cylindrical epithelial cells, not infrequently ciliated, along with groups of smaller cells, partly cylindrical, partly rounded, that have been discharged from the uterine follicles; all embedded in a mucous fluid. Where the discharge is more turbid, the epithelial cells are seen to be undergoing fatty degeneration, and to be accompanied with wandering cells, pus-globules, and crowds of free fatty particles. This uterine leucorrhœa may be found at any period of life, but as an independent affection it is found almost exclusively in virgins, or young married women, or in women who are ceasing, or have ceased to menstruate. In the last-named class of cases, the cervix is often atrophied, and its orifices narrowed, and the uterine secretion may accumulate for a time, and be expelled with some degree of suffering. Most frequently it is found associated with some degree of cervical leucorrhœa, the endo-cervical affection having passed up to the endometrium, or more rarely, *vice versa*. Perhaps the most frequent form of it is found in women who are subject to a leucorrhœal discharge before or after the menstrual periods, and in cases of amenorrhœa, where a pale discharge escapes at the usual menstrual periods, this has its source in the interior of the uterus proper.

5. Tubal Leucorrhœa.—Doubtless some small portion of the fluid that escapes in certain cases of leucorrhœa is furnished by the Fallopian tubes, but despite the elaborate attempts of Hennig and others to establish a difference between it and the other varieties, it remains rather as a subject of pathological interest than of clinical importance.

It will be seen from the foregoing anatomical classification that our venerable predecessor was in a hopeless muddle with his different times of discharge and his denial of the share of the uterus in its secretion. How little the examination of the discharge taught him we see from the following paragraph:—

"The appearance of the matter discharged in the leucorrhœa is very various with respect to consistence and

which I am so much, as ascertained by the [illegible] circumstances before mentioned, seems to proceed from the same causes as that species of menorrhagia which I suppose to arise from the laxity of the extreme vessels of the uterus. It accordingly often follows or accompanies such a menorrhagia, but though the leucorrhœa chiefly depends upon the laxity mentioned, it may have proceeded from irritations indenting that laxity, and seems to be always increased by any irritations applied to the uterus." We would here like to have known what was the nature of the irritants that were applied to the uterus, whether they were caustics, or the actual cautery, but unfortunately there is no further explanation. "Some authors have alleged that a variety of circumstances in other parts of the body may have a share in bringing on, and in continuing this affection of the uterus now under consideration (he mentions before that there is no topical affection of the uterus). But I cannot discover the reality of those causes; and it seems to me that this leucorrhœa, excepting so far as it depends on a general debility of the system, is always primarily an affection of the uterus; and the affections of other parts of the body, which may happen to accompany it, are for the most part to be considered as effects, rather than causes. The effects of leucorrhœa are much the same with those of menorrhagia; inducing a general debility, and in particular a debility in the functions of the stomach. If, however, the leucorrhœa be moderate, and be not accompanied with any considerable degree of menorrhagia, it may often long continue without inducing any great degree of debility; and it is only when the discharge has been very copious, as well as constant, that its effects in that way are very remarkable. But even when its effects upon the whole body are not very considerable, it may still be supposed to weaken the genital system; and it seems sufficiently probable that this discharge may often have a share in occasioning barrenness. The matter discharged in the leucorrhœa is at first generally mild, but after some continuance of the disease it sometimes becomes acrid (the young practitioner must not conclude too hastily that an ulcer exists in the uterus when the matter discharged is acrid. Practice has afforded many instances where the matter has excoriated the pudenda, and yet no ulcer existed); and by irritating or perhaps eroding the surfaces over which it passes, induces various painful disorders."

And now we come to the most important part of the discussion—the treatment. Professor CULLEN treated his cases as follows:—

"As I have supposed that the leucorrhœa proceeds from the same causes as that species of menorrhagia, which is chiefly owing to a laxity of the uterine vessels, it must be treated, and the cure attempted, by the same means as described in para. 893 for the cure of menorrhagia, and with [illegible] in respect of the use of astringents.

[illegible] with [illegible] astringents. [illegible] tincture of [illegible] grains of alum, and as much vascha [illegible] powder every two or three hours with three or four spoonfuls of tincture of roses to wash it down. The last is sometimes of use in these cases, especially when joined with alum. The external applications are cold clothes soaked in vinegar and water applied to the lower region of the abdomen or to the pudenda; or a strong decoction of oak-bark, with an ounce of alum dissolved in every pint of it, may be applied cold to the same parts.

The following form is very convenient:—

R	Rubigin Ferri	... ...	3ii
	Cort. Peruv.	... ...	3i
	Syrup Simpl.	... ...	q.s.
	M. F. Electuarium.		

The dose of this electuary is to be varied according to the constitution, a quantity the size of a nutmeg twice a day is usually given.

The best form of Chalybeate water, in these cases, are the mineral waters which contain iron dissolved by fixed air. Chalybeate waters should not in this disease be drunk in such large quantities as to pass off by stool. A gill taken every three or four hours throughout the day, with a spoonful of port-wine, is more efficacious than a pint, or even a quart taken at once in the morning. The dose, however, of these waters varies according to the strength of the particular water we use. Along with the Chalybeate water, a scruple or half a drachm of Peruvian bark may be given twice a day.

The following form is very agreeable, and is at the same time singularly efficacious:—

R	Extract Cort. Peruv	... ...	3i
	Extract. Campecheno.		
	Extract. Glycyrrh	... ...	aa3ss.
	Mucilag. Gum. Arab	... ...	q.s.
	M. F. Electuarium.		

The dose is half a drachm or two scruples twice a day.

Practitioners recommend in these cases, a nutritive but not a heating diet, as mucilaginous broths made with rice, especially veal-broth, jellies of all kinds, except those that are highly seasoned. Port wine must be prescribed in a moderate quantity, according to the habits of the patient.

As the leucorrhœa generally depends upon a great loss of tone in the vessels of the uterus, the disease has been relieved, and sometimes cured, by certain stimulant medicines, which are commonly determined to the urinary passages, and from the vicinity of these are often communicated to the uterus. Such, for example, are cantharides, turpentine, and other balsams of a similar nature. The practice here recommended is not without danger, and must not be followed, except with great caution and circumspection. When the other means fail in producing relief, we may then have recourse to these balsamics, or join them to the tonic astringents, as,—

R	Gum Oliban		
	Terebinth Venet		
	Alum		
	Tart. Japonic	... ...	aa3i
	Sal martis ...	... ...	3ss

M. F. massa in pilulas aequales No. 60 dividend.

Two or three of these pills may to given twice a day or oftener.

℞ Balsam Copaiv ... ... ℥i
Vitel. Ovi No. 1

Tere in mortar, marmor, at adde gradatum.

Aq. fort ... ... ℥vii
Syr. Simpl. ... ... ℥i
M. F. Emulsio.

The dose of this emulsion is 2 or 3 spoonfuls three or four times a day.

I will conclude and complete this study by giving below a resumé of treatment by Professor SIMPSON as given in the latest edition of Quain's Dictionary.

Treatment.—In instituting our treatment of leucorrhœa, it is of the first importance to have in view the constitutional condition of the patient; to use means to counteract any diathetic tendency—tuberculous, strumous or syphilitic; and to raise, as far as possible, the general standard of the patient's health by the administration of tonics and the enforcement of a suitable diet and regimen. It is partly in this way that a change of residence is often useful; and in making a change, it is well for the patient to go to some of the spas, such as Ems or Kissingen, the waters of which are helpful in reducing congestions and catarrhs of the pelvic viscera. In young women of relaxed habit of body, it may be enough to prescribe quinine and iron or arsenic, and the daily use of a cold sponge bath; and in infantile leucorrhœa cod-liver oil and iron should be administered.

In the great majority of cases of leucorrhœa, some kind of local treatment becomes an absolute necessity. Sometimes it is enough to pay strict attention to cleanliness, washing the pudendal surfaces with a soft sponge, or syringing the vaginal canal with tepid water; and even when astringent applications are to be made, the surface should first be subjected to a detergent stream of water. Where there is marked congestion of the uterus it is best to make the injections with hot water, and to keep the stream passing through the vagina for at least five minutes at a time; the immediate relaxation of the blood-vessels and hyperæmia being followed by contraction of their walls, which favours the cessation of the discharge. The astringents most serviceable for checking vulvar and vaginal leucorrhœas are alum, aluminated iron, acetate of lead, sulphate of copper, sulphate of zinc, borax, and infusions of oak bark, matico, and other vegetables charged with tannin. They are best applied in the form of an injection with a Higginson's syringe, having a vaginal nozzle attached to it; or of a douche through a long India-rubber tube, with a stop cock for regulating the flow, fitted close to the vaginal nozzle, and the other extremity opening into a wide receptacle, or fitted to a filler into which the fluid is poured. Where there is a difficulty in using the injection, and where it is desirable to keep up a more prolonged application of the medicament, it may be introduced into the vagina in the form of pessaries made with cacao-butter or with gelatine. Topical applications to the canal of the cervix and cavity of the uterus ought always to be made through the speculum, and without such applications it is a hopeless task to undertake the cure of cervical leucorrhœa. Here, more concentrated or more powerful astringents or escharotics became necessary. Nitrate of silver in the form of a stick of caustic is easily applied, but its repeated application may lead to mischief. Zinc, alum dried, sulphate of zinc, sulphate of copper, perchloride of iron, or tannin may be introduced, in the form of rods or arrows made with starch and gum. If a uterine sound or stilette be dipped in water and a thin film of cotton wadding wrapped round the point to the length of about two inches, the adherent mucus can be cleared away, and the same or another sound mounted with wadding can be charged with butning nitric acid, the acid nitrate of mercury, strong carbolic acid, a solution of perchloride of iron, tincture of iodine, or iodised phenol, and carried through the speculum along the cervical canal. In intra-uterine leucorrhœa it becomes necessary to carry the application right up in the same way to the interior of the uterus. It is usually best to begin with one of the stronger liquids, apply it a few days after a menstrual period, and follow it up with applications of iodine. So long as the stilette or sound with the dry wadding passes easily through the os internum, it is usually necessary to continue from time to time the intra-uterine application.

Some remarks on the difference of treatment a hundred years ago and now, are necessary as a fitting conclusion to this article. It will be noticed that Professor CULLEN entirely depended on medicines given internally for its cure. He recommends some constitutional remedies as mineral waters, but it is evident that no vaginal examinations were resorted to. The astringents which he mentions are also internal agents. No douches, no astringent applications, no treatment of the os, or of the lining membrane of the uterus, no admonitions for cleanliness, and above all no antiseptics. And yet some old surgeons prefer the old times to the new.

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QUACKS AND QUACKERY.

BY GEO. E. CLAXTON, L.R.C.P. & S. Edin.

Officer on Plague Duty, Bandikui, Rajputana.

IN all ages and amongst every nation on the face of the earth, quackery exists for two important reasons. First: The workings of the human body are so mysterious, the diseases to which it is subject so varied, and the causes underlying them so involved in obscurity that a variety of methods of treatment must necessarily exist. Secondly: The bulk of our community can be easily talked over by quacks, who are plausible, make pretensions to a world-wide knowledge of their subjects, and puff up their ignorance in a most bombastic manner. Just to illustrate how they can hold the attention of the public, I will cite a case in point. Many years ago, a quack was holding forth to a very large audience in the open air, in one of our largest English towns, and thereby secured a large and speedy sale for his nostrums; he was airing his knowledge on the anatomy of the human frame, but strangely transposing the important viscera, placing the heart on the right and the liver on the left side. Two medical men, who happened to be present, pointed out these errors; the quack seeing his predicament so carried the public by his eloquence as to completely turn the tables on the disciples of Galen, who had to fly for their lives from the en-

vagrant mob. Most quacks possess the gift of the gab, and they extensively advertise their methods and nostrums in the lay periodicals, and even medical men have been tricked by these. Not many years ago, a well thought-out and most cleverly-worded advertisement, setting forth in glowing colors the cures accomplished by a special electrical method, caught my eye as I was glancing over a periodical one day, the contained statements appeared so convincing and impressive that even a medical friend, whose opinion I sought, and who declared it to be a fraud, could not make me alter my views at the time, in fact I told him, after careful perusal, it could be nothing else but genuine. The method was tried, but to my utter disgust, proved a failure. This instance shows what intelligent advertising can, and does do, and if a medical man can be tricked, how very easy it is for anyone not versed in medical matters to be taken in.

It will be well to point out the differences between quacks and doctors.

(1). Quacks have had no special training in medicine; the little knowledge they possess is most fragmentary and superficial, and has probably been derived from some elementary treatise on the subject—hence quacks never like to discourse on medical topics with medical men; and if the subject is at all broached by the latter, get most irate as their ignorance is exposed. The fraternity on the other hand, ventilate their views at various society meetings; or consult with each other when a difficult case has to be treated, and so medical science is advanced. Quacks, in order to get known, have recourse to a variety of advertising dodges, whereas a medical man, depending on his own abilities and exertions, in process of time secures a large practice for himself, and gets firmly established in one place without resorting to advertising.

(2). The nostrums used by quacks are not only *kept secret*, but are vaunted as "panacea" for all human ills. Medical men are perfectly aware that "a cure-all medicine" can never exist, and naturally regard these nostrums as being of no value whatever. No secret remedies are used by the profession, and the composition of our patent medicines are generally known. Moreover the materia medicas and pharmacopœias enlighten every member of the profession as to the nature, sources, and action of drugs. If any new remedies are introduced, their virtues, etc are clearly set forth in the medical periodicals for trial by other medicos.

(3). Quacks, as a rule, like to be paid in advance, and their charges are most exorbitant. This is done with the object of quickly lining their pockets before the frauds, of which they themselves are perfectly cognizant, are detected. They can, without suffering any monetary loss, decamp at a moment's notice when they find a place gets too hot for them, and can start their fraudulent practices, perhaps under an assumed name, in some more congenial spot. A private practitioner, on the other hand, gets poorly, and sometimes not at all, paid for the conscientious performance of his duties, and I have known intelligent men to spend quite a small fortune on quacks who do no good, and withhold their fees, or otherwise grudgingly give them, to the family doctors who, in every way, try to benefit them, and bring all their science, skill, and when needed, the opinion of another medical man, to bear on their case. What is the result? The quack often gets the praise, and the poor medico the blame if any untoward event takes place. If a poor person comes to a quack for treatment, no interest is taken in his case, or else he is rudely repulsed, but if the same come to a general practitioner, he is treated with kindness and compassion, and everything that can be done is accomplished, even though the hopes of remuneration be slight or nil. The former is a simple money-grubber, the latter a philanthropist, and in the treatment of destitute cases the sleeve-hook of the quack is seen at a glance.

Seeing such marked differences exist between doctors and quacks, can we wonder at the latter hating the former, or at their method of treatment based on empiricism being different to ours? It will be well to briefly consider the following questions:—Why do quacks exist? Why do folks patronise them? Do they do good in any diseases? Has the science of medicine at all benefited by quackery?

Why do quacks exist? As long as some diseases—instance cancer and phthisis—remain incurable in their advanced stages under our present methods of treatment, so long will the market be flooded with a host of quack remedies, professing to work magical cures in such cases, and quacks will abound and grow rich at the expense of the poor dupe, whom they most unmercifully fleece.

Why do folks patronise quacks? Some sufferers, after having given legitimate means a fair trial, cling, as does a drowning man to a straw, to the faintest hopes held out by any method which is advertised to do good in their particular ailments, and can we altogether blame them for doing this? They see the advertisement, may be in some paper, or a friend or relative directs their attention to it, and persuades them to give it a trial. Parents, too, in the case of their children, argue much as follows.—"Our children, when they advance in years, might probably cast a reproach on us; and say "why was not a method which held out even the faintest hopes of benefiting our case tried, when the means were so ready at hand?" To avoid such a reproach, many parents who are enlightened, resort to quacks.

Do quacks do any good in diseases? As a rule, quacks have in their employ paid accomplices, who swear that certain imaginary complaints from which they are or were suffering, have been benefited, or cured, in a most marvellous manner by the quack's remedies. Quacks too often exercise a mesmeric influence on their patients, and generally the nervous, hysterical, hypochondriacs, and so-called paralysis, derive often permanent benefit from the means resorted to. Further, quacks by their plausible manner, often win the confidence of their patients, and the latter's strong faith so beneficially influences the mind, as to bring about a change for the better in many functional ailments from which they were probably suffering, but which quacks allege were cases of cure under their own hands. Lastly a quack, just like any layman might, by a sheer stroke of luck, hits accidentally upon a definite cure for a given ailment, and patients who are benefited thereby, naturally sound his praises far and wide.

Has the science of medicine at all benefited by quackery?

A [illegible] the history of medicine teaches us that [illegible] medicine has evolved from empiricism to [illegible], and [illegible]. In the dark ages superstition, witchcraft, and quackery had full sway. Many drugs which are recognised specifics, e. g., quinine in malaria, had been for many years used empirically. Vaccination, which is regarded by us as a prophylactic against small-pox, was itself in an empiric [illegible] before JENNER made his important discovery. The oxygen method of wound treatment was practised for ages by [illegible] in an empiric [illegible]; and even, in this country, many remedies employed by *hakims* are handed down from father to son as heirlooms for many generations, and their usage rigidly preserved in the family. Quackery or empiricism has benefited medical science in the past, but as our knowledge advances quackery will be forced to take a back seat, so to speak. I believe every disease under the sun has its appropriate remedy, and it remains for future generations of medicos to discover these, and in so doing, deal quackery its death-blow.

A FEW REMARKS ON CHURCH HYGIENE.

By P. V. JEDARETNAM PILLAI, C. M. S.
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THE title of my paper may make many a devout Christian indignantly exclaim "Why is the church linked with hygiene in the one breath and what has hygiene, which is a purely State affair, to do with Holy Mother Church? And it may seem sacrilege for me to say that the Church must be purged of her sanitary sins, sins made all the more heinous by traditional conservation of certain rites and ceremonies that are void of common sense.

But built up as she is on sections drawn from all sorts and conditions of men and welded together in a Christian whole, the Church has unconsciously drifted into observances peculiar to each of its sections, but for which it has no divine authority. Many of these observances or rites are utterly opposed to sanitary requirements, and the sooner they are modified, if not altogether removed, the better for the entire Christian world and the millions of the unconverted, whom the Church hopes to embrace in her folds at some time or another.

I do not propose going through the entire category of her sanitary shortcomings, and for the present shall confine myself to two that demand immediate reform. The first of these, and a very grave one, is DISPOSAL OF THE DEAD BY CHRISTIANS.

I recollect having read in the *Indian Medical Record* a paragraph which I copied out in 1894, and a part of which runs:—"Death is merely a temporary lull of vitality in the transition stage on which *all* life is built, and itself is death in a number of ever-changing forms to perfect and develop which, cleanliness is essential. *Absolute* cleanliness is not only the first and greatest point on which Nature, God's handmaiden, welds every joint of the marvellous chain of life, but is also an attribute of God Himself, but the generality of men either know a God or care for a God only as a God means a personal good to themselves," and in the illogical preservation of traditional customs little dream of the dangers they store up for their own posterity and contemporary races.

[illegible] following up the Christian tenet "from dust thou camest and to dust shalt thou return," they consign their darling, who while living led a most useful life perhaps, in a hardly perishable and airtight coffin which they lower into a grave, dug in the very heart of a thickly populated area, and after the mournful utterance of 'earth to earth, ashes to ashes, dust to dust' has saddened them to their very souls they hurry away, leaving their darling to the loathsome processes of slow decomposition rendered slower still by the encumbering earth. They either do not know or they forget that the dust of the body was held together by fluids, which are but liquefied gases, which during the process of resolution into simpler or elementary substances, are slowly given off and leak through the upper earth (see section 203 of Disinfectants: their actions and uses, published in 1894 in the *Indian Medical Record*) as vapors that increase sickness and mortality to a great extent, even though they may not be productive of any specific disease, or they may percolate towards the subsoil streams to pollute the water supply of some adjacent district.

And in this forgetfulness they build their churches in the centre of or on the very margin of their cemeteries, which they affectionately refer to as 'God's acre' and unwittingly pun on acher which that acre verily becomes, by undermining the health of the worshippers in those churches, which may be further converted into 'chambers for dead people's gases' by the horrible practice of making the nave or aisles of some churches the last resting place (*i.e.*, grave) of persons of note, and such priests or clergymen who were remarkable for their piety and other good qualities.

When the Rev H JONES of St. George in the East, London, could not dissuade the poor of his district from obtaining their drinking water from a pump inside the parish cemetery and argument seemed worse than useless, he placarded the pump with "DEAD MEN'S BROTH," which had the desired result, and from that time cholera and other infectious diseases that had hitherto devastated his parish began to disappear, while the poor enjoyed better health.

Again, with the population steadily increasing, there is a constant demand for building and cultivation sites which the graveyards unfortunately take up the room of needlessly. Needlessly I say, because burials could easily make way for cremation, which not only resolves the body more quickly into its elementary parts by doing in five or six hours what burial takes four to seven years to effect, but also completely does away with the nauseating noxious products of decomposition; as well as completely destroys the germs of many an infectious disease that burial only too surely spreads with greater virulence. Of course sentiment would rebel at the idea of burning a dearly loved relative, but sentiment is not always sane, and a little reflection will prove conclusively that it is better to reduce a dead relation to cleanly ashes that will harm nobody and can be locked away in a small urn, than to consign him to the ground to be eaten by maggots and slowly rotting away, defile both air and water with disgusting loathsomeness. Sentiment like tradition dies hard; but cremation has put in the thin edge of the wedge in Europe, and I think before long it will become general.

The next point I would take up is the COMMUNION CUP, and here I expect the greatest opposition, as superstition attributes to it many virtues that Christ never claimed for it, when he commanded his disciples "Drink ye all of it;" he did not say "Drink from this cup" nor did he ascribe miraculous powers and prophylactic or antiseptic virtues to the cup or vessel containing the symbol of the blood of atonement.

If germs of contagious and infectious diseases can readily be transfered by shaking hands, or osculitation, and if '*kissing* the Bible' (the sacred word of God) be a sanitary sin, what is there to exempt 'drinking from the same cup or chalice,' from a similar charge, and what render the other communicants immune from the contagium of syphilis, phthisis, scrofula, tuberculosis, &c., left on the cup or in the wine by the diseased person whose sip preceded their's?

Though he may not be able to give a clear reason for such an act, a Hindu never touches his drinking vessel with his lips. He will either drink from his *just*-washed hand or throwing his head back will pour the water from a little height into his open mouth; and should any one, even a co-religionist or a close relative infant touch his drinking vessel with his lips, he will have polluted it.

Strange but true, many a Hindu who would have liked to embrace Christianity has been solely deterred by the mode in which the communion is administered, and the chalice passed from lip to lip without regard to the state of health of the several communicants.

In its February 1896 issue, the *Indian Medical Record* suggests 'wiping the rim of the cup after each person has sipped to prevent the evil or suffering consequent on promiscuously drinking from the same cup. This may be well enough for the rim but will not purify the contents of the cup that have been sullied by contact with the lips, tongue or saliva of the preceding sipper.

In its anxiety to obey divine commands as well as sanitary demands, the *Lancet* suggests (1) the adoption of the Roman Catholic mode of administering communion or (2) dipping or sopping the bread in the wine and then giving it to the communicant. The first of these is opposed to Protestant views, and the second equally impracticable because, while the other disciples partook of the Lord's Supper, JUDAS ISCARIOT, the accused betrayer 'received a sop,' and the minister may not himself be sufficiently healthy to pick up such sop with his naked fingers and drop it into the open mouth of the communicant.

Go-ahead America has seen a way out of this difficulty, and some of her churches have a separate cup for each person, and at the time of communion each of these is filled with wine from the consecrated chalice on the altar; but can the Church of England follow suit without risk to her clergy? No, not till she alters her ritual and expunges the order for the priest in the church. Consume *whatever* of the consecrated wine remains after communion, and this means that the dregs left in each cup by the communicant must be carefully collected and swallowed by the officiating clergyman. Yet the sooner she does make these changes the better for all persons concerned.

I recollect being at a Wesleyan service in Mysore, where two cups were handed round, and though I admired the system, it had its drawback also, as while the two who sipped first escaped risk of contagion, they might themselves have infected the cups for those who drank after them.

That man will be the Salvator of his community who can convince both clergy and laity that in adhering to burial and one-cup-communion, they are deliberately sacrificing their health, by leaving undone those things that they ought to have done and doing those things that they ought not to have done.

INDIGENOUS DRUGS OF INDIA: SPHÆRANTHUS INDICUS AND MOLLIS.

By R. P. BANERJI, B.A., G.S.M.S.I.

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THOUGH the total rainfall of 1895 was only 10·09 inches, or less than half of that of the preceding year and about one-fifth of what it was in 1893-94, the autumn-winter season set in with unusual severity. The temperature ranged from 58° to 89°F. in the open air and from 72° to 100°F. in the sick wards, giving a mean temperature during the hours of daylight of 70° out-doors and 86°F. in-doors. To this add food of poor quality and the difficulties of water-supply—the only potable water having to be brought by rail from long distances outside the influence of these salt districts—and it is not hard to perceive the frequent inrushes of malarial fevers, but the curious fluctuations of this season's temperature gave rise to rheumatic and respiratory affections in such numbers that my stock of official drugs was soon exhausted, and I had to fall back on indigenous plants to minister to the medical needs of my numerous patients.

Thus in the three months—September to November 1895—I had to treat 500 cases of acute rheumatism and 852 chest affections ranging from simple tonsilitis and mild bronchitis to croupous pneumonia, and the native (*i.e.*, Indian) drugs I employed were:—

Botanical Name.		*Bengali.*	*Quantity.*
Sphœranthus Indicus	...	*Garah moondee*	℥viij
,, Mollis	...	Sidet moondee ...	℥viij
Physalis Somnifera	...	*Asgand* ...	℥xvj
Asparagus Racemosus	...	*Satawari* ...	℥viij
Piper longum ...	..	*Piplee* ...	℥ij
Liquorice root ...	...	Jostee modoo ...	℥iv

These are finely powdered, and covered with about eighty ounces of water and boiled in a closed vessel till about 2 lbs. of clear decoction is left. While hot, this mass is strained through flannel and the filtrate carefully stored in well-corked bottles. The dose varies from ℥ii to ℥ii, according to the age of the patient.

All the above drugs are cheap and readily procurable from any *pansari* (vendor of Indian herbs and native medicines), and my reason for the above mixture was that I wished to combine the tonic, diaphoretic, expectorant and stimulant properties of the *moondees* with the anti-rheumatic action of *asgand*, the anti-periodic and anti-malarial properties of *satawari* and the antiphlogistic and expectorant effects of *piplee*, to which I added the liquorice root as a demulcent.

In a few cases this preparation of mine had to be supplemented with quinine, but this is not to be wondered at, as there are many instances where rheumatism that resisted anti-rheumatics and anodynes readily yielded to anti-malarious remedies and, on the whole, I was more than satisfied with the results I obtained from this preparation which persons of all ages, classes and conditions tolerated well, and raised no objections to the taste and odor of.

I noticed that during the administration of this decoction there was (1) an equable diaphoresis followed by a regularly steady fall in temperature which was unattended by the depression of spirit so common to the diaphoretics and antipyretics in general use. (2). In the pneumonia of children it was superior to ipecacuanha; and (3) its expectorant properties were well marked in chest affections, while (4) as an analgesic, diaphoretic and diuretic it was simply invaluable in rheumatism, whose pains it rapidly abated. (5) In some cases it acted as a cholagogue and freely discharging the accumulated bile with the fæces, gave great relief to patients who were habitually constipated.

The Sanskrit text describes the action of *moondee* as laxative, stimulant, bitter tonic, nervine stimulant, antipyretic, anti-malarial, expectorant, aphrodisiac, antiphlogistic, digestive, anthelmentic, diaphoretic, and antibilious—and, as such, I think the Sphœranthus ought to be given a prominent place in the British Pharmacopœia.

A MIRROR OF PRACTICE.

FETID ABSCESS OF BROAD LIGAMENT CAUSING ALARMING SYMPTOMS — LAPAROTOMY — DEATH.

By James R. W[illegible], M.D., F.R.C.S.,
*Fellow of the Obstetrical Society of London,
Formerly Resident Surgeon to the Eden Hospital for Women and Children, Calcutta, &c.*

Mrs. W———, a tall, well-made English lady of 40 years, the mother of two children, the youngest 8 years old, a resident of Calcutta for many years, had been under my treatment off and on for the past six years for recurrent ovaritis and metritis occurring occasionally and irregularly at her menstrual periods, and due invariably to chills after bathing. Relief was always afforded by the use of local and internal sedatives and a few days' rest. Often she went for months without the slightest trouble, but I can recall two or three instances, when the inflammatory attacks in connection with the uterus and its appendages, were so severe, as to be attended with serious constitutional disturbance, necessitating close and watchful medical attendance and rest in bed for two or three weeks.

The present illness supervened on a severe chill while bathing, and on the 5th January, I was called to see my patient, and found her suffering with high fever, great abdominal pain, and intense and persistent vomiting. Rest in bed, the application of counter-irritants and the use of sedatives and diaphoretics, caused a complete temporary subsidence of all febrile and inflammatory symptoms; and on the 9th January, she seemed to have recovered. Perfect rest for a week was enjoined. This advice was not followed; for on the 10th and 11th, the patient was about her domestic duties, and as a natural sequence, a relapse of pain and fever forced her to bed. Once more these symptoms subsided, and perfect rest was again insisted upon. On the 13th and 14th the advice was followed, but with a return of apparent health and freedom from pain, the busy toil of home work was again taken up in spite of serious warning against it.

On the 24th January, very acute tearing pain was felt in the left iliac region, attended by severe retching and vomiting, accompanied by faintness. When seen on this day, the abdomen was found tender to touch, more particularly the left side, and there was an ill-defined sense of tumefaction in the left iliac fossa. Simultaneously there was a free discharge of blood *per vaginam*, which lasted for four or five days. She was previously "unwell" on the 1st January, the present inflammatory trouble dating from a chill following a bath taken after that menstruation, just twenty-five days before. This strange combination of symptoms—the sudden tearing pain in the ovarian region, the faintness, the retching, the localized iliac tumefaction, the sanguineous vaginal flow—seemed to point to a possible ectopic gestation and rupture, but my suspicions were not strong in this direction, and I dismissed the probability of such a diagnosis from my mind. Effervescent draughts allayed the distressing vomiting, and the local symptoms were successfully combated by fomentations of the abdomen, the application of belladonna and the administration of opiates. While however, pain and [illegible] subsided for a few days, fever [illegible] about without any appreciable [illegible], ranging from [illegible] to 104°F. for days. The iliac swelling too became more circumscribed and defined. On the 3d February vomiting set in, and pain and tenderness returned in the now well-formed abdominal tumor. For four days everything ingested was ejected, and the patient had to be fed by rectal injections of soup, [illegible] milk and brandy. She had become much lowered, and on the evening of 6th February I detected distinct fluctuation in the swelling. On the 7th I asked Dr. William Coulter to see the patient with me. He agreed with my opinion that there was a fluid collection in the broad ligament, and on my aspirating the tumor, I withdrew about five ounces of foul smelling, putrid pus the same evening. Towards night the patient became much worse, the pain had subsided, but the vomiting was incessant and the temperature rose to 105°F. Next day the swelling re-appeared and its size and resiliency indicated a still larger reaccumulation of pus, while the pain and tenderness were intensified. Finding things getting so rapidly worse, I had another consultation with Dr. William Coulter and Dr. Arnold Caddy, on the 8th at noon, as I felt that nothing but a free opening into the abdomen would permit of a satisfactory removal of the putrescent fluid, and save the patient from the imminent risks, not only of a rupture of the abscess into the peritoneal cavity or the as probable sequence of fatal septic peritonitis, even without rupture. After careful examination into all the circumstances of the case, both these surgeons decided that laparotomy should be performed without delay. Accordingly at 3 P.M. on the 8th February, after the patient was carefully prepared for the operation, chloroform being administered by Dr. J. G. Anderson, with the able assistance of Drs. Coulter and Caddy, I opened the abdomen in the median line by an incision from the umbilicus down to the pubes. On opening the peritoneum, the hand was passed into the abdominal cavity and a large fluctuant tumor, as big as an ordinary fœtal head, was found filling the left iliac fossa and bulging upwards in contact with the parietes. A few recent adhesions had formed to the adjoining tissues, but these instantly gave way as the fingers came in contact with them. Careful manipulation revealed the fact that the tumor was a cystic abscess of the left broad ligament. Having regard to the putrid contents of the cyst, the abdominal cavity was packed with gauze on all sides of the tumor to prevent the entrance of infectious pus. The sac was now laid open, and quite a pint of very putrid pus and sloughs gushed out. Having emptied and then irrigated the cyst cavity, it was now decided to shut out the peritoneal cavity from further continuous risk of infection, by fixing the open edges of the abscess walls to the margin of another abdominal incision in the iliac region, and thus providing separate drainage for the abscess. Another incision was therefore made, parallel to, but [illegible] a half away from, the central cut, and to [illegible] of this wound the gaping walls of the abscess [illegible]. The protective gauze and sponges [illegible] removed from the peritoneal cavity, it was [illegible] irrigated with boiled water at a temperature of about 100°F. Having fixed one drainage tube into the abdomen through the

[illegible] it [illegible] another, [illegible] was [illegible] the pelvic cavity, [illegible] up. The first row of [illegible] the second of [illegible] approximated the muscles, and the third, of silver wire, brought the margins of the outer wall [illegible] together.

Plain sterilised gauze dressing, dusted with boric acid and iodoform, covered the wounds. There was not much bleeding during the operation, and the patient's pulse was good, when she was put back to bed at 5 P.M. After she recovered consciousness, the temperature was normal, the vomiting had ceased, and there was complete absence of pain. Rectal feeding was resorted to, and nothing but small quantities of ice was given by the mouth. For thirty hours following the operation, the patient's condition was most satisfactory. She slept well, she had no pain, there was no fever and no nausea nor retching. The nutrient enemata were well retained, and twelve hours after the operation, there was a healthy semi-solid evacuation of the bowels. Eighteen hours after the operation the dressings were changed and were found perfectly aseptic. The peritoneal drainage tube was removed, and the small opening for it was closed with a deep horse-hair stitch, so as to prevent possible infection from the adjacent cyst wound. The latter was re-packed and re-dressed, and the patient expressed herself comfortable and well.

At 9 P.M. on the 9th there was some epigastric discomfort, attended with rather free eructations. For this, one of the nurses on her own authority "prescribed" and administered "half a tumbler of hot water," which the patient almost instantly rejected From this moment, the most persistent and distressing emesis was kept up, and nothing seemed to check it. In spite of the vomiting, the abdominal wounds did well, and there was not the smallest sign of surgical mischief. Effervescents, sinapisms, dilute hydrocyanic acid, crushed ice, champagne, cold compresses to the epigastrium, etc., were all resorted to with no avail. The gastric irritability seemed uncontrollable. Rectal stimulation and feeding were steadily adhered to, and the injections were all well retained. On the 10th, the bowels moved freely of themselves, and as the vomiting still continued, gruels of arrowroot, sago and cornflour, to which milk was added, were given in small quantities every hour by the mouth. They were not retained. Iced chicken jelly was also rejected almost as soon as taken. On the evening of the 10th, signs of cerebral disturbance set in. The patient was rambling in her talk and incessantly wakeful and tossing about There was no rise of temperature, no abdominal distension, no pain about the wounds, no smell from the abscess opening.

On the 11th, Drs. COULTER and CAREY saw the patient with me again. The threatening coma had become more pronounced, the small quantities of food given by the mouth had begun to be retained; but the bowels had not been moved for 24 hours. A large dose of [illegible], and was followed by three drops of [illegible], but the bowels did not act. [illegible] of warm soap water were similarly [illegible] in bringing away any [illegible] contents. The [illegible] easily, and the urine, which had been drawn off regularly every [illegible] was healthy looking. When [illegible] for the coma. Surgically everything [illegible] was all that could be desired, and [illegible] of the bowels for 24 hours and the [illegible] protracted emesis, there seemed no clue to [illegible] origin of the comatose state which now [illegible] patient's life. It was thought that the coma [illegible] the most careful analysis of the urine by [illegible], M.B., D.Sc., the Government Chemical Examiner, proved not only the complete absence of sugar in the urine, but that it was healthy. Bromides, [illegible] to the head, a blister to the nape of the neck, all failed to make the slightest impression on the brain, and [illegible] but steadily that organ was overpowered and the patient sank without a struggle at 5-30 P.M. on the [illegible] February, three days after the operation.

Remarks.—Surgically speaking, as far as the perfect condition of the abdominal wounds and their aseptic preservation were concerned, the operation and its immediate results were apparently all that could be desired. I am inclined to blame the uncontrollable vomiting and the consequent cerebral anæmia, due to inanition, as the direct cause of the coma and resultant fatality.

NOTES ON AN INTERESTING CASE OF NASO-PHARYNGEAL POLYPUS SUCCESSFULLY REMOVED.

UNDER THE CARE OF SURGEON-MAJOR F. F. PERRY, F.R.C.S.

Reported by Amrik Singh,

Clinical Clerk, Mayo Hospital, Lahore.

GHANAYA, a Hindu male, aged 25, was admitted into this hospital on the 3rd of November last, for a large growth in the pharynx of about 6 months' duration.

Condition —Patient pale and very anæmic, peculiar expression of face Breathing was effected exclusively through the mouth ; the posterior nares being completely blocked by the growth. On examining the mouth the soft palate was found to have been pushed downwards and forwards, nearly meeting the dorsum of the tongue. On digital examination the tumour was found to be soft, irritable and inflamed, and its surface raw and ulcerated at various spots. An extremely offensive discharge constantly exuded from the growth. Altogether the case seemed beyond remedy His temperature was above normal. Pulse small and feeble, and appetite practically nil.

Palliative and supporting treatment.

1. Condy's fluid gargle, four or five times a day.
2. Quinine sulph. gr. 10 when temperature was normal.
3. To be fed with milk only.

For the first 15 days after his admission, his temperature kept above normal, sometimes rising to 104 or 105°F, probably from inhaling the fœtid [illegible] which were constantly given off by the inflamed growth.

By the use of gargles, however, the tumour diminished in size to some extent from subsidence of inflammatory action, and along with this the fever disappeared altogether. He was then ordered

Ferri et quininæ citratis ... ... grs v

Aquæ Chloroformi ... ... ad ℥i

Twice a day after meals.

A week after the use of iron there was a healthy change in

the nasal cavities. The polypus was found to have become considerably reduced in size and firmer in consistence, and the trace of the offensive discharge was left.

Operation.—On the 30th of November, removal of the polypus by evulsion was decided upon, and the patient put under chloroform. It was found to be a solid tumour about the size of a hen's egg, and had extensive attachments to the left side of the roof of the pharynx. The attachments were found to be too firm and extensive to admit of removal with forceps.

On the 9th January last the patient was again put under chloroform. "*Osteoplastic section of superior maxilla* was performed after preliminary *laryngotomy*. The upper lip was divided in the median line and then by means of a chisel the superior maxilla was divided through the palate process and above the alveolar border, the bone was then readily dislocated outwards and the pharynx exposed. As the growth had extensive attachments and was very fibrous in its nature, it was removed from its base partly, by means of the fingers and partly by scissors; the hæmorrhage was free but was controlled by plugging. The bones were then sutured together by means of catgut suture after drilling, and the skin incision united in the ordinary way."

After treatment.—He was ordered three ounces of rum in 24 hours. To be fed with milk every fourth hour with a pharyngeal tube. On the fourth day of operation the plug was removed and boracic acid irrigation ordered for the nares. On the sixth day the stitches were removed; and on the eleventh day the patient was discharged; the superior maxilla had fairly united and both the nostrils were quite free, so that he was now able to breathe through the nares. On microscopic examination, the growth was found to be a *fibro-sarcoma*.

Remarks.—This case illustrates in a remarkable way the achievements of modern surgery. The patient, when admitted, was a most wretched specimen of suffering humanity whose very existence was a burden to himself. The exposure of the pharynx by this method was sufficient without the least possibility of any deformity resulting after the operation. The bleeding was terrific, and the surgeon had to fish out the tumour with his fingers from the pool of blood which filled the nasal and buccal cavities throughout the operation in spite of constant sponging; the *prognosis* varies not only with the duration and extent of disease and the condition of the patient, but also with the skill of the surgeon under whose charge he happens to be.

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CASE OF SEVERE HOMICIDAL CUT-THROAT: VERTICALLY DESTROYING ENTIRE LARYNX AND A PORTION OF TRACHEA: RECOVERY.

By Ram Lall Sircar, C.M.S.

Camp Line Lone, Chinese Frontier Commission.

Ebabeon, a Kuranga, Hindu male, cooly by profession, was brought one day by the police to the Civil Hospital, Monywa, Upper Burma, when I was immediately sent for. On my arrival, I found the patient sitting on the floor trying to describe how the incident took place. I was surprised to see the condition of his throat. He was unable to speak, emitting only a sort of low husky noise. The police gave information that they had found the man lying near a Bhuddist monastery at about 11 A.M. quite prostrate, with his clothes and bedding perfectly saturated with blood. They wanted to run him in for attempt at suicide. This, however, was quite opposed to reason, the nature of the wound being such, that no would-be suicide, however determined, could possibly have cut his throat to such an extent as to slice off the entire larynx with the exception of the upper portion of the epiglottis, the upper third of the trachea was also injured. The cut extended 2½ inches across the throat, was 2 inches broad and penetrated to the posterior wall of the larynx and trachea. The wonder is that the man did not bleed to death.

Treatment.—The wound being first cleansed with an antiseptic lotion, the flap was stitched to the right margin of the wound, which was then dusted with iodoform and dressed with dry lint, a bandage being so applied as to keep the head down. He was then given some milk to drink, which however he could not manage to take, as the act of swallowing brought on a fit of coughing, the greater quantity of milk escaping through the wound, a few drops also fell into the air tube. So we had to feed him by enemata of milk, chicken soup, eggs and brandy for seven days, after which he was able to swallow liquid nourishment.

On the fourth day after his admission, the suture gave way and it was found impossible to stitch it again, the flap having contracted considerably, so the wound was kept partially open and a tracheotomy tube was inserted and kept in for a few days. The wound healed slowly but surely, and in six weeks' time was perfectly well.

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FATAL UNCONTROLLABLE HÆMATEMESIS.

By Assistant Surgeon Jaikishan Dass,

Sonepat.

Teikha, a Hindoo male, *æt.* 32 years, was seen the day previous at about 3 P.M. He had had a cool bath in the morning and a full meal for breakfast at about 11 A.M., consisting of *bajra* (millet grain) cooked in the syrup of *Gur* (jaggery). He had vomited four pounds of dark colored blood at about 12 noon. This had of course alarmed him greatly as blood spitting often does, and when seen by me, he had a very anxious look. He was treated with acid gallic, ext. of ergot, haseline, &c., &c., but without any benefit. No ice being available, cold was applied to the pit of the stomach in the shape of cloths soaked in a lotion of nitre, salt and chloride of ammonium, but this had no effect either. The vomiting recurred and quantities of blood were brought up each time. The man died at about 1½ A.M.; the intellect remaining clear to the last. There was no history or signs of cancer or ulcer of the stomach nor any other appreciable cause.

THE

Indian Medical Record.

15th March 1893.

CRIMINAL RESPONSIBILITY OF THE INSANE IN INDIA AND ENGLAND.

THE question of the criminal responsibility of the insane is again prominently before the public, owing to the result of the trial of ARCHER, the murderer of the well-known actor, TERRISS. In this case, it will be recollected, that the jury found the prisoner guilty of murder; they also found that he was responsible for the nature of his action; but on the medical evidence they found him insane.

This verdict has caused considerable dissatisfaction, and is leading to a general discussion of the whole question of the criminal responsibility of the insane which, as is well-known, is a matter of considerable controversy between the legal and medical professions. In India the Penal Code endeavours to restrict the question as much as possible by prescribing that "nothing is an offence which is done by a person who, at the time of doing it, by reason of unsoundness of mind, is incapable of knowing the nature of act, or that he is doing what is either wrong or contrary to law." At first sight this limitation of insane irresponsibility seems to be amply sufficient, but it by no means provides for even the principal phases of insanity; and, judged strictly by the test of the Indian Penal Code, many a lunatic would have to be condemned.

In England the law is more elastic on this point; but even here it is admitted that the matter is in a very unsatisfactory condition, so much so that a learned judge of great experience, Lord BRAMWELL, declared before a Committee, that "the present law lays down such a definition of madness that nobody is hardly ever really mad enough to be within it." And if this can be said of the English LAW, which is more comprehensive on the subject than the Indian Penal Code, what must be thought of the latter?

The whole difficulty arises from the necessity of distinctly defining the extent to which insane people can be held to be responsible for their actions. The medical notions on the point differ very considerably from legal conceptions. Some medical authorities hold that a person in any way insane should be irresponsible before the law, these urge that a brain which is morbidly unhinged, even to a slight degree, cannot be relied on to take sound and reasonable views of matters of ever-day occurrence, Others make the loss of self-control the test of irresponsibility, but it is extremely difficult, if not impossible, to say definitely when loss of self-control commences.

The English judges are by no means prepared to go as far as the doctors, but they have experienced much difficulty in precisely defining the limits of insane irresponsibility. The same test as is prescribed by the Indian Penal Code of course holds good in England, but the Judges have gone further than this and have held that those who commit crimes under the irresistible impulse of some insane delusion are irresponsible, though they are able to discriminate as to the nature of their deeds. For example, a man may be perfectly able to recognise that he is committing the crime of murder and is thus grievously offending the law; nevertheless his mind may be so perturbed that he is unable to resist some insane delusion, which impels him to commit the crime, such a person would escape the gallows in England; but in India, if the law be strictly interpreted, his case could not be included in the section of the Penal Code above quoted. The practice of any large lunatic asylum furnishes numerous instances of lunatics who are perfectly able to discriminate as to the nature of their actions, but who are suffering from some insane delusion. Not a few reason insanely from sane premises; others reason sanely from insane premises, while others again reason insanely from insane premises. Most of these would, strictly speaking, be held responsible to the law for their actions. For instance a man may easily be seized with the delusion that he is a special apostle of some particular religion, and that he is therefore called upon to smite every unbeliever. Such a person would, as a rule, be able to thoroughly recognise that he was committing a crime in striking down an unbeliever, nevertheless he would be impelled to the commission of that crime by the peculiar delusion which has taken possession of him. The French Law prescribes a better limitation than either the Indian or English Law; for it provides that "there is no crime or misdemeanour when the accused was in a state of dementia at the time of the commission of the act, or when he was under the control of a force he was not able to resist."

In England there are some notable leading cases with regard to pleas of insanity; but unfortunately they do not serve to remove the confusion investing the subject. About four years ago, a young gentleman at Leamington shot his father dead under the impulse of a delusion that the latter was systematically persecuting him. Mr. Justice WRIGHT, who tried the prisoner, told the jury that his responsibility to the law ceased if it was found that he had been acting under the impulse of a delusion, even if he was able to discriminate as to the nature of his crime. The jury returned a verdict in accordance with the learned Judge's direction. In another recent case, Mr. Justice BLACKBURN seems to have gone even further, and before a Select Committee he stated with reference to this case:—"The prisoner clearly knew right from wrong and knew the character of her act, and was quite aware of what she had done, but I felt it impossible to say that she should be punished. I told the Jury that there were exceptional cases." In the case of OXFORD, æt. 17, who fired two shots at the Queen in 1840, Lord Chief Justice DENMAN, in his charge to the Jury, remarked with reference to the plea of insanity set up on behalf of the prisoner:—"He might be labouring perhaps under a delusion which affected every part of his conduct, and was not directed to one object alone. If that were the case, and if the disease affected him at the time the act was committed, then he could not be held accountable for it One cannot say what a person under such a delusion may do; and the motive in that case would not be apparent." The Jury returned a verdict of "not guilty on the ground

[illegible] that the Private Secretary was Plaintiff himself. At the trial the defence put in medical evidence to show that the prisoner had committed the crime under the influence of an irresistible delusional impulse, according to which he was required to make away with the Premier for political reasons. In this case also the Jury brought in a verdict of "not guilty on the ground of insanity" or as the medical verdicts run (according to a recent Act) "guilty but insane." According to the strict interpretation of the Indian Penal Code, all these prisoners would have experienced difficulty in escaping the gallows.

It is to be hoped that the present discussion of the question of Insane Responsibility will result in some reasonable extensions of the limits allowed by the law, particularly in this country

A HOUSE DIVIDED AGAINST ITSELF
A LESSON TO THE MEDICAL PROFESSION.

The evil growth of "Hospital Abuse," which we discussed in our last issue, owes its monstrous origin and abnormal dimensions entirely to the fact that in the ranks of the medical profession there is no such thing as cohesion; no such thing as UNION.

In this respect, the profession is in a pitiable plight and lies naked and defenceless before the attacks of those who desire to prey upon it.

It would be idle here to enter into the abstract question, if there is any fundamental and essential attribute of the profession of medicine that is incompatible with the unity of its members; the fact that unity does not exist is enough for us, and this fact is only too generally and notoriously admitted

Some may seek for an explanation in high ideals, and a lofty sense of duty, the loud-voiced majority will find it at a lower moral elevation, in envy and selfishness.

We may remark that the Church, whose ideals and aspirations are sufficiently lofty, does not let these qualities interfere with the proper governing of her mundane affairs; and though the domain of religion presents many openings for the development and expression of individual opinions, she visits such breaches of discipline with her severest displeasure, and she is justly as sensitive and intolerant of outside criticism as of internal contumacy.

The medical profession has no wise governing body, which it can look up to and respect, and which, while punishing faults, has the will and power to further the interests of its members, and protect them from injury.

For such a body we must look to the future.

In the meantime all is discord and dissension. What is the attitude of one medical man to another? An American journal describes it as follows:—

"Suspicion took the place of confidence, and envy that of admiration for deserved success. Physicians began to sneer at each other's patients; they began to imitate the acts of small shop-keepers and to undersell and to undersell their brethren. Some even volunteered the well-to-do to accept medical charity in public hospitals, [illegible] professional regulations, [illegible] giving visitors thus deprived [illegible] might, in the words of [illegible] patients, and thus hold [illegible] professional brethren eager to [illegible] What, then, has become of the [illegible] we even yet boast loudly and [illegible] We are not know and daily feel to our [illegible] of mutual self-respect and confidence, the public may have lost almost the semblance of respect for us collectively?"

Can we say that this is misstated, or even that it is exaggerated?

It is the spirit engrafted from our student days. When we sit at the feet of our lecturers, who so freely disclose for our edification, and their own adulation, the little mistakes of their colleagues.

It is the wholesome sense of discipline, which exists in the Church and in the Law that is so sadly lacking in the Medical Profession, a certain healthy feeling of restraint is good for us all, and absolutely necessary for many.

There is probably no more free and untrammelled agent than the young practitioner just let loose upon the public, the Body responsible for his education has pocketed his fees, its duty ends there, in his future course and conduct it takes no concern.

The evils that may result from this unlimited freedom, and the unscrupulous and licentious use to which it may be put, are probably more in evidence in the United States than anywhere else, and Dr. J. Hillis of New York, has described them in an elaborate and interesting paper in the *Medical Record*, of Dr "Youngblood," the type of this species he says —

"Now Dr. Youngblood cares not a mill for the etiquette of his profession, it has no concern for him. At present he is interested only in himself, and must and will build up his practice, even though the heavens fall and the earth trembles under his feet. Now to accomplish his purpose he will break down all the barriers that have hedged in the traditions of an ancient and honorable calling. He flings etiquette out of the window."

"Dr. Youngblood is the incarnation of the pernicious activity and commonplace audacity with which the medical profession is to-day honeycombed, undermined, and disgraced. The Youngbloods have made our calling the jest of the people, they have so injected the element of fakir and three-card-monte man into the current of medical thought, that the honest and intelligent practitioner blushes while contemplating the future of his profession These Youngbloods have *divided*, demoralized, and prostituted our profession to their own selfish ends, so that it is an easy prey for the wily hospital governor to feed on, or the philosopher to [illegible] truth or point a moral with."

It is evident then that the medical profession has its enemies within as well as without, and all the result of its wretched unorganised and [illegible] state.

The question may well be asked in view of their splendid isolation? What have they gained by it? Nay, rather what have they not lost?

At the present day the Profession [illegible] a body of men inferior to none in [illegible] intelligence, energy and the able and conscientious [illegible] of duty; while

[illegible] of the [illegible] nothing.

[illegible] for suffering humanity [illegible] to the [illegible] longevity of the population, but [illegible] return, without influence, without [illegible] nothing.

[illegible] societies, unions and clubs without [illegible] formed for the express purpose of [illegible], until at length with fees grudged and [illegible] in the near future, it has been driven in self-defence to take up a position which all the laws of common sense dictated years ago.

At this late hour the medical profession in England has opened its eyes and has seen that to pursue any longer its past policy is to court disaster.

At no time in the history of the world has the old saying that "unity is strength," received more numerous or more apt illustrations. We are surrounded with unions of every kind and description. Every department of labor is organised.

The Medical Press of England is devoting more and more space to this question of union every day, and its importance is becoming more and more widely recognised. This is a healthy sign and bodes well for the future.

Union, it must be remembered, is for the weak. Our leaders have not been forward in this matter, it is the rank and file who feel the pressure; they must be the first to act; and the leaders, whoever they may be, will soon find out on which side their interest lies.

Combination and the medical press, are the weapons with which the battle must be fought, and almost every week we have news of some fresh combination of medical men in England.

The amount of support given to the medical press in this country is, we regret to say, but small, and its influence is handicapped in proportion. The total annual output of medical scientific work is almost a disgrace to the large number of highly qualified men among us, and the vast fields which still wait to be explored.

To such a condition of affairs we must however, submit, until a large proportion of our exotic medical talent can be replaced by growths of indigenous origin.

We conclude with an extract from the *Medical Times and Hospital Gazette*, showing some of the steps that are now being taken towards combination in England, and some of the useful results which may accrue from them:—

"We would take this opportunity of impressing upon our readers that every one of them can do something towards helping his profession, as well as himself, at this critical juncture. There are many towns in which no District Committee has yet been formed, and we would urge upon our readers the advantages which have been attained already by the formation of such local unions working under the general ægis of the Association. If any member will invite his fellow practitioners to meet at his house and discuss the present position of affairs in the medical world, he will find there are two matters on which the majority are agreed—that a local union would [illegible] if it were possible, but that it [illegible]. The latter can easily be proved [illegible]. Such a member can obtain papers from [illegible] can be formed and [illegible] For example, it only requires [illegible] gather at such a meeting [illegible] should each individually sign the [illegible] of the Association, and hand it [illegible] pence for the first year's [illegible] of the meeting, to be forwarded [illegible] of the Association at 30, Junction Road [illegible] resolution should be proposed and [illegible] present form themselves into a District Committee of the Association; then they should choose from amongst themselves a Chairman and Honorary Secretary for the forthcoming year. The Secretary will forward their names to the head-quarters of the Association, and would receive copies of the Bye-Laws and Regulations governing the general proceedings of District Committees—leaving each Committee free to take up whatever work it pleases. One result, which has been found most valuable, may be briefly described. A black list is formed by each member supplying the Secretary with a list of patients who have neglected or refused to pay his fees, such a list being available for the inspection of every member of the Committee. The adoption of this plan not only has a valuable result in saving bad debts, but it also causes many patients to realise the worldly wisdom of paying their doctors. In some instances it has been found very useful for the Committee to appoint a Debt Collector, and many amounts which otherwise would have been lost have by this means been saved. Thirdly, it has been possible by such union to fix the fees, which the profession in the locality will charge, and it has assisted to increase the incomes of the members of the Committee by their being thus able, for the first time, to adopt the argument, "I am not allowed to charge less than so-and-so," it being, of course, always permissible, if circumstances require it, to make one or more visits without a fee. There can be little doubt, also, that the public are glad to know definitely what the doctor's fees will be, as there are few things in this world which are more variable and unsettled. As a matter of fact, however, a fixed scale of fees is not only businesslike, but it has been practically successful.

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THE LIFE AND TIMES OF THOMAS WAKLEY, FOUNDER OF THE "*LANCET.*"

The termination of the case of Tyrrell *v.* Wakley marked an epoch in the career of the defendant and his journal. It was at this time that Wakley, the Reformer, with the *Lancet* as his weapon, became recognised as a power.

Wakley now found himself with two avowed objects of attack—the administration of the metropolitan hospitals and the constitution of the Royal College of Surgeons of England—and against each he waged a relentless war.

It will be understood that these two attacks were carried on at the same time, but for the purposes of this narrative his criticism of the metropolitan hospitals will be considered first.

In the "Hospital Reports," which appeared week after week in the *Lancet*, Wakley persevered steadily in his announced intention, and published elaborate accounts of operations, abstracts of clinical lectures and

outspoken reflections upon administrative details, every hospital in the metropolis receiving these unsolicited attentions.

In order to do this he had to employ reporters to work for him.

A few extracts from these reports up to the year 1823 will enable an estimate of their value to be arrived at.

In March 1825, a man was admitted to St. George's Hospital suffering from pneumonia. He was bled in the arm by the dresser, and during the little operation the brachial artery was wounded.

The man was placed under one of the surgeons who, on consultation with the physician, considered that the pulmonary trouble was too severe to warrant him in disturbing the patient by tying the brachial artery—obviously the only safe course to pursue under the unfortunate circumstances.

A tight bandage was placed upon the arm above the wound instead of a ligature upon the vessel. The bandage remained three days untouched, when the circulation having been occluded mortification set in, and the patient died

A coroner's jury brought in a verdict that the man died from the accidental opening of an artery in the arm, and from the want of proper attention.

Four months later a still worse case of malpraxis occurred at the same hospital.

A man was admitted to the accident ward whose right knee had been cut by a broken bottle, the house surgeon thought that an artery had been severed and applied a tight bandage.

The patient was under the care of the same surgeon, who did not, as it afterwards transpired, examine the knee himself, but left the bandages undisturbed for five days, when the limb was found in a terrible condition. The man died and the verdict of the coroner's jury was that "the deceased received a cut on the knee by accident, and from the effects of improper surgical treatment and neglect his death was produced."

Upon these cases the *Lancet* made exceedingly severe comments and freely mentioned the names of all concerned.

Almost at the same time it was noted that in the Middlesex Hospital not more than one patient had recovered from an operation for strangulated hernia during two years, and several cases of malpraxis at Guy's Hospital and St. Thomas' were detailed at length.

"Nothing is more easy," he wrote at this time, "than to show that our hospital system is all wrong, the men who are elected to the vacant posts are men with a good city connection.....and ignorant pretenders exclude men of sound talent.

On 29th March 1823, there appeared the report of a case which led to the most sensational lawsuit that WAKLEY was ever engaged in. The case of BRANSBY COOPER, *v.* WAKLEY. It contained the most outspoken denunciation of a piece of hospital malpraxis possible to conceive. The plaintiff, Mr. BRANSBY COOPER, was inferentially called a murderer, and in a leading article the defendant justified the accuracy of his report, and his right and duty to publish it.

The operation in question took place at Guy's Hospital, and was a lithotomy performed by Mr. BRANSBY COOPER, then a Surgeon to the institution of three years' standing. The patient was a strong, middle-aged countryman, for whom the procedure of cutting for stone, should not under ordinary circumstances, have had any particularly grave risk.

The account given was short but horrible, and its horror was accentuated by its dramatic form. It was divided into Act I and Act II, the first set forth the preliminary steps, which took 20 minutes and insinuated that the original incision having been wrongly made, the operator lost the proper appreciation of the anatomical geography, and attempted violently to effect a passage with his forceps where no incision had cleared the way.

The second said to have lasted half an hour, accused the Surgeon of having hopelessly lost his head. It described him as calling for all forms of instruments, asking for the assistance of his colleagues and even of his dresser, and complaining in front of the patient, of course unanæsthetised of his utter inability to understand the cause of his own terrible failure to extract the stone.

No more terrible picture of incompetency, of want of skill, want of nerve, and want of heart could be imagined than the picture that was drawn. It was further insinuated that BRANSBY COOPER owed his position on the staff entirely to the fact of his being Sir ASTLEY COOPER'S nephew.

He had no alternative but to bring an action for libel against WAKLEY.

This case excited the greatest popular interest; the court and all passages leading to it were crowded, and it was as much as the counsel, jury and witnesses could do to obtain an entrance.

WAKLEY defended himself, aided by Mr. BROUGHAM, and was opposed by Sir JAMES SCARLETT.

It is not necessary to enter into the details of the trial. After an absence of two hours the jury returned a verdict for the plaintiff with £100 damages, this was equivalent to a victory for both sides; the verdict told its own tale. Most certainly the jury believed WAKLEY'S main statement that the plaintiff had been guilty of malpraxis, on no other ground could they have let him off so cheaply, for of the £2,000 claimed only £100 were awarded

This trial increased the hostility of the hospital officials against WAKLEY, and at no time in his career had he such bitter and organised opposition to meet as immediately after this sensational trial. His reporters were expelled from the learned societies, he himself was excluded from three or four of the largest metropolitan hospitals; while, on the other hand, every facility was given to the other medical papers of the day.

This galled WAKLEY and his feelings found vent in savage criticism of his contemporaries.

They in their turn wrote in unspeakable terms of him, and the recriminatory passages, certain of which will be quoted in connection with WAKLEY'S actions against Dr. MACLEOD, the Editor of the *Medical and Physical Journal*, and Dr. JAMES JOHNSON, form amazing reading for these politer days.

By this time, however, WAKLEY had behind him a strong following and a numerously attended public meeting was held on the Tuesday following the verdict, at which a series of resolutions of a flattering nature were passed, and a subscription raised to pay all his expenses in the trial which amounted to £497 odd.

It is related that in after years a formal reconciliation took place between WAKLEY and BRANSBY COOPER.

[illegible] of plague [illegible] of the [illegible] by the [illegible] of Sholapur [illegible] towards the end of 1897, it is estimated [illegible] and 60 thousand people fled across the frontier, infecting the villages through which they passed and carrying the disease into Hyderabad.

Any one who looks at the map will see that Sholapur [illegible] semicircular indentation in the frontier line, from which it is only about 10 miles distant; the frontier line surrounds it for more than half a circle, thus giving every facility for refugees, while its length rendered it impossible to guard it effectually.

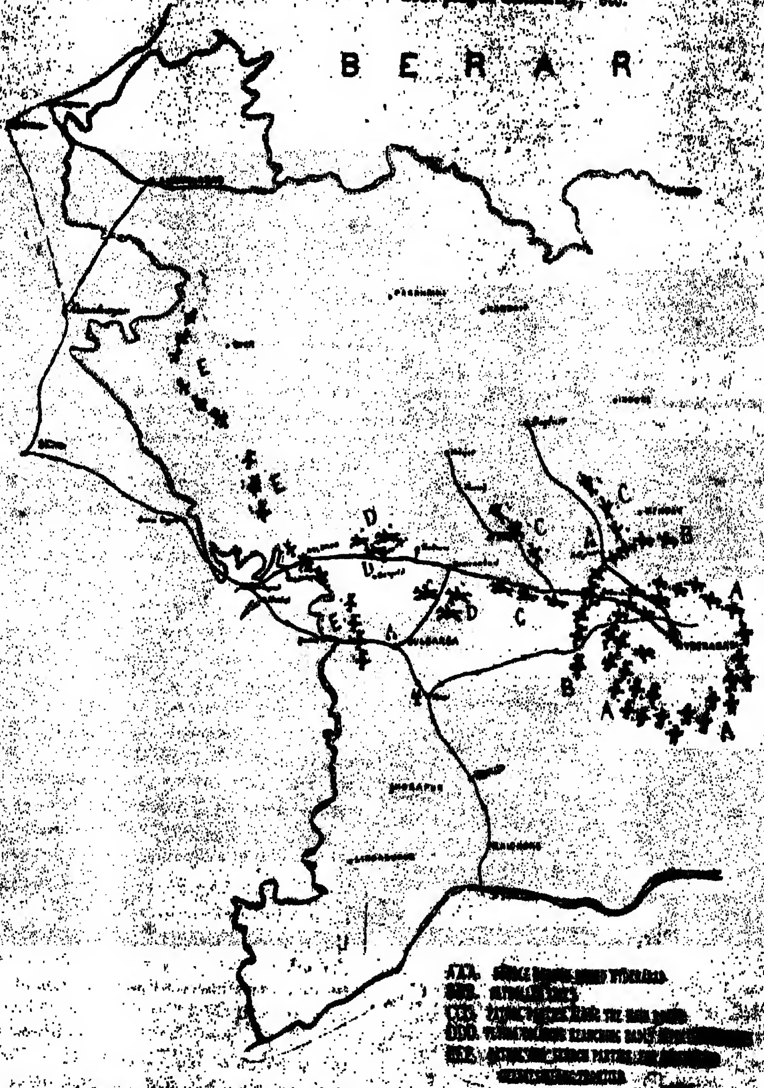
of plague [illegible] with the [illegible] and [illegible].

They [illegible] preventing the spread [illegible] in British [illegible].

Experience only showed the [illegible] of [illegible] from the [illegible] the native [illegible] Patel [illegible].

We may pause here to quote [illegible] regulations of the Bombay Government, [illegible] 1897, which were presumably in force [illegible].

Para. 3 says :—"The District [illegible] prohibit the departure of any person, or [illegible] from an infected area, except under passes granted by a resident plague authority," etc.



In anticipation of the advent of plague, Surgeon-Colonel Lawrie, the Director of the Medical Department, H. H. the Nizam's Government had taken all possible precautions, the rules of the Indian Government and of the Bombay Government had been adopted, the steps to be taken had been laid down, instructions and notices were widely distributed, and simple directions such as would be likely to appeal to the native mind had been posted up in the villages.

Para. 8 says :—"It shall be the duty of every village officer to prevent persons from [illegible] in his village in breach of this rule," etc. Yet we have seen that over 55,000 persons were able to leave Sholapur, cross the frontier and carry the plague into the territory of a friendly prince.

Having done what he could to ensure the earliest information of the advance of plague reaching him, we can picture to ourselves the Director of H. H. Nizam's

Medical Department, Surgeon-Colonel Lawrie, eagerly awaiting at Head-Quarters for the expected intelligence, and getting more and more uneasy and suprised as day after day passed and the news came not.

At length, feeling no doubt that something had gone wrong, he despatched his personal assistant, Mr. H. Tripp, to the Sholapur frontier; the step was taken not a moment too soon.

Mr. Tripp proceeded to Itkal, close to Naldurg, and in the Naldurg district, the chief authority of which was invested in Mr. Syed Aziz Hassan with the title of "the first Taluqdar, Zillah Naldurg, on the 18th January 1898, he reported to this official that there were three badly infected villages, 2 miles, 9 miles, and 13 miles respectively from Itkal. The first, Keshagaon, had 21 cases and 16 deaths; the second, Dhotri, 55 cases and 48 deaths; the third, Woolegaon, 19 cases and 14 deaths.

"It is greatly to be regretted," he says in his report to the Taluqdar, that you have not been able to visit Itkal in person, as there are so many pressing and important matters to be undertaken, which only yourself, as the head of the district, can authorise and sanction."

"I beg to request you will, if it be at all possible, come, without loss of time, to Itkal."

The Taluqdar, however, preferred touring in a more salubrious part of his district, and to get him to Itkal was beyond the power of man.

The next day Tripp added another to his list of infected villages, Sarrati, 2 miles from Keshagaon, with 5 cases and 2 deaths, and reports to the Medical Director that with the Taluqdar sitting in camp 60 miles away, absolutely nothing can be done.

On the 19th January Lawrie also received reports saying that plague has crossed the frontier from Ahmednagar. Two cases had occurred at Davalgaon and one at Peepla, and two deaths at Ambora.

Some of these cases had occurred as far back as December 1897, but the Tuesdar had suppressed the information.

Plague having crossed the frontier and having become indigenous in the Nizam's Dominions, the next thing to do was to take steps to deal with it as effectually as possible.

Two things were urgent: to prevent its further spread and to discover the exact amount of mischief already done.

On 25th January, Surgeon-Colonel Lawrie writes to Mr. A. H. Stevens (The Secretary, Chadarghat Municipality) notifying to him that he has been appointed "Plague Commissioner in the districts of the Dominions off the railway, comprised roughly, in the tract of country between Gulburga and Aurungabad." This area from the adjacent frontier towards Hyderabad city is to be styled the "infected districts."

We find Mr. Steven's duties clearly defined, with the machinery for carrying them out, and the methods to be adopted in infected places. "You will be invested," the letter says, "with the powers of a first-class magistrate during the period you are employed on plague duty, in order to enable you to enforce the plague rules of Government. On the other hand, all district officials and all special officers whether civil or military, as well as troops and police will be directed by Government to implicitly obey your orders."

It is a satisfactory proof of the good understanding existing between the Nizam's Government and their Medical Director, that all Surgeon-Colonel Lawrie's recommendations were approved in toto, and promptly promulgated in orders.

Surgeon-Colonel Lawrie was appointed Plague Commissioner. Mr. A. H. Stevens and Mr. Fellowes, Deputy Plague Commissioners; the former was to guard the Railway lines; a full detail of the troops available for plague duty was submitted by the Chief of the Staff.

The campaign then commenced in earnest.

In the meantime Tripp had not been idle. By the 29th January he has discovered three more infected villages—Kadky, Karamba—which had given shelter to 733 Sholapur refugees, had 32 cases and 12 deaths. Nanuj with 239 refugees had 4 cases and 2 deaths.

The first Taluqdar had got as far as Tuljapur, at this safe distance he delivered an exhilarating address calling upon everyone to give all the aid in his power to check the spread of plague; the address was received with acclammation, and three Hindu gentlemen were so overcome by the interest shown in their welfare by the Taluqdar, that they addressed the meeting on the subject, and enthusiastically lauded him *"for coming all the way from Parenda at much personal inconvenience."*

When, however, Tripp suggested, that he should come as far as Itkal to meet the Deputy Commissioner, Mr. Fellowes, he found he had very important business elsewhere, and could not be moved.

This gentleman was relieved from the uncongenial sphere of plague duty by order of the Government on 1st Feb.

The following interesting paragraph occurs in Tripp's letter:—

"Tambulwadi was visited by plague upwards of a month ago, but the inhabitants, with great promptitude, vacated the village of their own accord. They cleaned their village afterwards and were permitted to re-occupy it about ten days ago by Hakim Nussarwanji P. Chenoi. The people acted somewhat hastily in returning so soon to their houses, but, up till now, all is well with them."

From this it appears that this village was re-occupied about the 19th January after being evacuated for 20 days or so. It remained plague-free from that time, up to the middle of February at any rate. We have no later information.

On the 30th January, Lawrie reports to the Government, summing up the situation:—

"The great danger," he says, "is that places may have become infected, that we do not yet know of between Umergha and Bidar on the one hand, and Hyderabad on the other." He recommends that the three main roads from Hyderabad city towards the Sholapur side be patrolled, and all the surrounding villages searched, and that a "patrolled line" be established to guard the city, the situation of the line to be defined when the plague has been accurately mapped out.

The city of Hyderabad is to be placed in a state of defence, the Municipalities are to be sub-divided, and a responsible officer placed over each sub-division. Three camps are to be constructed: one for the isolation of the sick, one for the segregation of suspected persons, the

third for the segregation of healthy persons from infected areas.

STEVENS had gone to Sholapur to interview the Collector, and the local matters were arranged there. He soon comes to the conclusion that it is impossible to prevent refugees crossing the border, that search parties are the only means of discovering the places infected.

In Sholapur they are spending Rs. 1,000 a day on disinfectants. LAWRIE will have none of them; he resorts to the more effective method of fire.

His rules are as follows, after complete evacuation of the infected village:—

"(a) Complete isolation of the sick and their attendants.

(b) Segregation of the healthy, among whom there may be persons who have contracted infection without knowing it, until the incubation period is over. The incubation period lasts ten days.

(c) Disinfection by means of, (1) the entire destruction by fire of infected materials such as the dug up surfaces of the floors, and the scraped surfaces of the walls of houses, and of all excreta; (2) destruction of the infection which is carried about in materials, such as clothing, by heat in the form of boiling water, and by prolonged exposure to sunlight and air, and (3) destruction of infection by drenching with water" Special stress is laid on the digging up and burning of floors.

"(d) Chemical disinfectants are useless and must not be employed."

STEVENS having seen enough at Sholapur, sets to work with a will, and considering the obstruction and opposition, his rapidity of action is wonderful. He is evidently the right man for the work. On 1st February, he reports the evacuation of the following villages. Warlagaon, Kirki, Dhotri, Karamba and Nanuj. On the 4th, he reports the evacuation of Sarrati and Keslagaon, he found cavalry search parties under AFSUR DOWLAH most useful.

Bad news comes in from Ganjoti and Umerghi, nearer to Hyderabad, and STEVENS hurries off, the journey was made under great difficulties, bad roads, no bridges and no means of conveyance He arrived at Gunjoti to find "the people panic stricken, and dying like rotten sheep in all the houses;" the death-rate was 15 a day, every obstruction was put in his way, as the people considered him an interloper, and that only Paigah officials should do the work in the Paigah illacks. He took the high hand however, and with much reluctance they consented to evacuate in 24 hours.

At Umerghi the difficulties were even greater; the people maintained that there was no sickness; here the police Amin of Ganjoti turned out an unexpected trump, with his help, he inspected some of the houses. He describes the result as follows:—

"The first house we went into was a big two-storied *pucca* house which was apparently deserted, although clothes and brass pots were lying about and piles of bags of grain etc. I went all over the house and looked in all the rooms and found not a living creature. I must say I thought it rather strange that neither the patel nor the amin, nor in fact any one came into the house with me, and I was just going out when I heard a sort of hissing sound in one of the small side rooms. It was quite dark, without windows, the only light entering from a very small door, but I crept in and there was a young bunjara woman nearly made and at her last gasp. It made me feel sick; so, to relieve my feelings, I ran outside and seized the patel by the scuff of his neck and dragged him in, to see and insisted on the police amin and about half a dozen others coming in too, which they did very unwillingly, having first tied their clothes over their mouths. It was a lucky find, as I became master of the situation at once. The next house contained a young man, delirious and dying. In the third house we found a young sowcar who had a large suppurating bubo in his neck. I ordered the village to be cleared out next day, which it was."

At Gunjoti, there had been about 125 deaths and about 150 at Umerghi, Terrori, a village in the neighbourhood, was also found to be infected.

These three places were all evacuated by the 11th February. Sir KHOOSHED JAH, and AFSUR DOWLAH proved excellent friends and not only promised, but gave every assistance in their power by means of the troops at their disposal. As for the Talugdars and Tehsildars, he did not even see them, while the revenue authorities gave no assistance, and he was much handicapped for supplies and tools.

In STEVENS' opinion, the whole country for 30 miles round Gunjoti was infected, and grave fears were entertained for Kallianse, which has a population of 15,000, these happily proved unfounded.

On the 22nd February, LAWRIE, having completed all arrangements at Head-Quarters, seized the opportunity and started for a tour of inspection in the infected districts. Thus, we see, these four Europeans struggling, and struggling successfully, against the plague, combined with native obstruction and opposition in these vast dominions, and the credit due to them is all the greater that they have so far done the work without calling for any extraneous assistance.

There is one further and important point which we have reserved and which demands attention.

STEVENS learned at Sholapur that "the Collector (WEIR) and all the other plague officers I met look upon a recrudescence as soon as the towns and villages are re-occupied as almost a certainty, and they are making all their arrangements accordingly and erecting substantial sheds, hospitals, and segregation camps for the rainy season when the present grass and mat structures will be useless Putting existing circumstances on one side, if a recrudescence occurs at Sholapur all our troubles will recommence as at present, roughly speaking, there are 50,000 refugees from British territory living in the Nizam's country. These refugees are now slowly commencing to return to their own villages, partly because there is little or no plague in Sholapur at present, and partly because now that we are evacuating our infected villages, they are put to inconvenience and are worse off than if they had remained in their own villages. When plague breaks out again in Sholapur, there will doubtless be another general exodus into the Nizam's country."

This news did not at all please LAWRIE; the hardship of keeping the villager out in the field until the rains is very obvious, besides a recrudescence after such a prolonged evacuation would simply amount to a conviction of failure.

[illegible] to take steps to prevent the further spread of plague over the neighbouring districts, this appears to be a very obvious duty.

We understand that at present all the ways into Hyderabad are patrolled, and there is a "cordon" round the city. People proceeding themselves or their goods are detained in an observation camp if they have fever; if they are free from fever, they get passes, and on reaching the regions are examined into the city, and their destination noted; so that they can be kept under observation for 10 days. There is, then, no such thing as quarantine in force.

THE HISTORY OF TYPHOID FEVER IN MUNICH.

Dr Ciesla's paper under this heading, which appears in the *Lancet*, 5th February 1898, comes at a very opportune time, and is full of interest and important suggestions for this country. We are therefore glad to recapitulate its most striking points at some length.

"The history of typhoid fever in Munich," he says, "during the last 50 years is for many reasons of the greatest interest. The extraordinary prevalence of the disease in the city during the sixth, seventh, and eighth decades of this century; and its extraordinary reduction since 1886 probably present a unique record in epidemiological history. Especial interest is added to this record by the fact that Professor Von Pettenkofer, and his school concluded long ago that no connection could be traced between the incidence of typhoid fever and the distribution of drinking water in the city, but that a very distinct causal relation was indicated between the incidence of typhoid fever and the conditions of the soil."

Munich presents particular facilities for an investigation of this kind, as all the necessary data have been carefully recorded during the last forty years.

The mean annual mortality from typhoid fever per 100,000 inhabitants in Munich was 202·4 in the sixth decade; 147·6 in the seventh decade; 116·7 in the eighth decade; 16·0 in the ninth decade; and 5·6 in the period 1891-1896, the mean annual typhoid mortality of the ninth decade was less than one-seventh of what it was in the eighth decade. Epidemics which were frequent before 1860 have ceased since.

Since 1880 the annual death-rate from typhoid fever in England and Wales has been reduced to one-half, in Munich it has been reduced twenty-fold.

Satisfactory evidence is produced to show that this extraordinary reduction has not been miscalculated or exaggerated, and a sketch and description of Munich and its surroundings is given.

It is situated on a gravel bed from 10 to 50 feet in thickness, sloping to the north with a layer of impermeable marl below, over which the sub-soil water flows.

Drainage of Munich during the sixth decade.

From time immemorial until 1865 nearly all excreta were deposited in privies and cesspits so constructed that their liquid contents drained away into the porous soil. By similar arrangements the slops and liquid refuse from the houses were allowed to soak away into the soil. In 1850 an order was issued that all cesspits in the city [illegible] of such watertight [illegible] the emptying of these [illegible] effects of the municipal [illegible] only be carried out by [illegible] liquid refuse from houses [illegible] chiefly to the soil until 1878; [illegible] the present time they have gradually [illegible] the soil and conveyed into the [illegible] only the old city and some of the [illegible] of the four appear to have had [illegible] the systematic drainage of these [illegible] city was begun and carried on until 1879. [illegible] from 1861 up to the present. Since the sewerage and house-drainage of the rapidly growing city have been gradually improved. Since 1883 the old watertight cesspits have been rapidly replaced by [illegible].

Water-supplies of Munich from 1851 to 1895.

During this period and from the beginning of the century the city was supplied with drinking water entirely from the sub-soil water; the pumps were more or less surrounded by houses and other buildings and subject to constant pollution, and all the analyses showed signs of organic pollution.

In 1865 a considerable and pure water supply (Pullachofer supply), was added to the southern and western part of the city. In 1883 the present excellent water supply (Highland) was introduced, which has now supplanted nearly all the old supplies.

Pettenkofer's Researches.

Beginning in 1854 as a believer in the constant connection of typhoid fever and cholera by the drinking-water, Pettenkofer first turned his attention to the distribution of cholera during the great epidemic of that year. He expected to find exceptional opportunities for proving the truth of the drinking-water theory owing to the number and peculiar distribution of the many different water-supplies in the city. He ascertained the water-supply of each single house by means of the Royal and Municipal Water Rates and by personal inspection; but in all cases his expectations were disappointed and he could find no connection, local or temporal, between the water-distribution and the cholera outbreaks. He made similar investigations with regard to the typhoid fever incidence in Munich and the distribution of the different water-supplies and always with similar results. He could never trace any of the local outbreaks which frequently occurred to any of the many separate water-supplies. Finally, he was convinced that in Munich there was not the slightest connexion between the drinking water and the typhoid fever. He next turned his attention to the conditions of the soil. In 1856 the observations of the height of the sub-soil water in various parts of the city were begun; these have been continued up to the present time.

These show that there is a remarkable correspondence—(a) between the rise of the sub-soil water and the fall of the typhoid fever prevalence; and vice versâ (b) between the fall of the sub-soil water and the rise of the typhoid fever prevalence, after the first years the epidemic waves began to subside.

Thus a rapid fall in the sub-soil water is followed by a great outbreak of typhoid fever, as shown especially in

[illegible] it a high level the typhoid fever [illegible] lowest—e.g., during the years 1860 and [illegible] 1866. During the winters of 1871, [illegible] 1874 the rapid fall of the sub-soil water [illegible] in each instance by considerable epidemics. After 1874 the fall of the sub-soil water appears to be followed by abortive and irregular attempts at epidemics until 1880; after which year they ceased altogether.

This constant relation between the variations of the level of the sub-soil water and the variations in the typhoid fever mortality is confirmed in a remarkable manner by Dr. Port's observations on the typhoid fever mortality in the Munich garrisons during the ten years, 1872-1881.

The great decrease in typhoid fever in Munich since the sixth decade must be attributed chiefly to the removal of those causes, which for so long had been producing extraordinary dampness and pollution of the soil immediately around and beneath the dwellings of the whole city.

From the time that the cesspits were made water-tight, (from 1858), the gradual reduction of active pollution must have been enormous, whilst the natural agencies of the soil, aided by the system of sewerage which has been extended throughout all parts of the city, must have gradually diminished the accumulated stock of dampness and organic saturation.

Finally, the sudden abolition of the 800 slaughter-houses in the city in 1878 removed the chief remaining active agent of soil pollution.

The conclusion that the prevalence and reduction of the typhoid fever in Munich have been independent of the drinking water rests then upon the following evidence :—

(1). PETTENKOFER'S own observations made in 1854 and afterwards.

He also observed that those who made use of the PETTENKOFER waterworks water (introduced in 1865 and followed by a great epidemic) suffered just as much from the epidemic as those who continued to drink the old water supplies.

(2). The conclusion drawn by WAGNER and AUBREY from a large series of analyses, that the sub-soil water was more polluted when it was high than when it was low, *i.e.*, that during the periods of typhoid fever epidemics the drinking water was purer than when the typhoid incidence was small

(3). Dr. Port's observations on the Munich garrisons, which show that the garrisons which were supplied with exceptionally pure water during the ten years 1872-1881 suffered far more severely than those whose water supply was obviously highly polluted.

(4). Finally there is the great fact that the people of Munich were drinking the sub-soil water, and that only until 1881—three years after the epidemic waves had ceased—when the highland water-supply was introduced. This supply has slowly and gradually been distributed to the whole city. In 1884 PETTENKOFER investigated the typhoid fever mortality in 671 houses containing 32,855 people who were still supplied by the old Royal waterworks. The waterworks had not altered [illegible] Dr. CHILD drew the following [illegible]

Taking all the above facts into consideration, it must be admitted that the evidence is very strongly in favor of the conclusion that whilst the great decrease of typhoid in Munich has been due in a general way to improved sanitary conditions, and possibly in some measure to decreased pollution of the water, (2) the drinking-water has not played an important part in producing and reducing the typhoid fever epidemics in Munich; (2) the great prevalence of typhoid fever in Munich was due to the great pollution of the soil (including specific pollution), modified by certain unknown conditions in the soil which are correlated with the movements of the sub-soil water; and (3) the gradual reduction of the typhoid fever was due to the gradual purification of the soil;—and the abrupt termination of the epidemics to the sudden removal of all the slaughter-houses.

The *Lancet*, commenting upon this paper, the value and importance of which it fully recognises, remarks :—

"The charts of incidence of enteric fever in Munich showed a striking association between fall of ground-water and increase of enteric fever. In this country it appears that the same relationship holds good, for 1868, 1874-75, and 1893 were exceptionally dry years and were also years of epidemic enteric fever."

"It may be that after neglecting the considerations urged many years ago by PETTENKOFER we shall by this indirect and somewhat circuitous path arrive at a partial agreement with his theory, premising that the great epidemics of enteric fever in a community are nearly always water-borne, while the sporadic cases are due to soil-pollution, and this soil-pollution is most active and operative when the ground-water is exceptionally low and the soil-temperature and humidity are most favorable to the multiplication of the Eberth bacillus."

"If we accept this view, which best reconciles the crepant considerations, there will be no difficulty in recognising the fact that in order to annihilate enteric fever the soil conditions of each community must be so improved as to starve the Eberth bacillus out of existence. Water is after all but a vehicle of the disease which is generated in the soil."

All this only goes to emphasise the importance of the remarks we have been making on the subject of sub-soil purification in this country, on the probability of its pollution being largely responsible for diseases, and on the blindness of the Bombay Corporation in allowing the sub-soil of their city to remain in its present state.

We do not think that anyone who has taken the trouble to read carefully our remarks on "The increased mortality from fevers in Madras Town," in our issues of 1st February and 15th February last, can help being struck by the very remarkable parallel that exists between the history of these "fevers" in Madras and the case of Munich as stated by Dr. CHILD. Both places present the phenomena of a high fever rate in close connection with a low sub-soil water and a highly polluted soil, and we have expressed at some length our reasons for believing that the Sanitary Commissioner is in error in ascribing these "fevers" to malaria.

CURRENTS AND NEWS.

THE LATE DR. JUGGO BUNDHU BOSE, M.D.

We quote from Dr. MOHENDRA LAL SIRCAR, who writes as follows in his excellent paper, the *Calcutta Journal of Medicine* :—"It is with deep regret that we have to announce the death of Dr. JUGGO BUNDHU BOSE, on the night of Monday, the 21st instant. He was born in April 1831. He was educated in the Dacca College, where he first came in contact with the late Babu PROSUNNO COOMAR SURBADHICARY, whose training did not fail to leave its mark upon the stripling. JUGGO BUNDHU won his junior scholarship in 1849, and retained it next year, having been promoted to what was then called the fourth college class (corresponding to the first year's college class of the present time).

"He joined the Medical College of Calcutta in June 1851, and had his scholarship transferred there. He also obtained a scholarship of Rs. 8 a month from the Medical College At the end of the first year he won the Goodeve medal for dissection in Anatomy, and next year he was appointed a prosector to the Professor of Anatomy, Dr. ALLAN WEBB. At the close of the session, he obtained a gold medal in Anatomy and certificates of honor in Physiology and Botany, and his answers in Descriptive Anatomy were printed in the Education Report. At the end of the third year he obtained gold medals in Chemistry and Materia Medica, and certificates of honor in Botany, Anatomy and Physiology His answers in Materia Medica were also printed in the Education Report. In 1854, he passed what was then called the Junior Diploma Examination, and headed the list of the successful candidates. In the fourth year, he obtained the gold medal in Medicine and clinical prize, the first prize in Midwifery and the Goodeve scholarship. At the termination of the fifth session he passed the Senior Diploma Examination with great credit and stood on the top of the list.

"After his graduation, he was sent to Akyab to take charge of the Seamen's Hospital there. Here he distinguished himself as a successful practitioner. As a reward for his services he was appointed second Demonstrator of Anatomy under Dr. H. WALKER in the Calcutta Medical College, and many a student of the College, among whom we are proud to reckon ourselves, still bears testimony to the great success with which he taught dissection. After holding this appointment for about seven years, he became a lecturer to the vernacular classes attached to the College, where he taught Anatomy for six years, and afterwards Materia Medica for twelve years. In 1863, he passed with success the M D. degree examination of the Calcutta University. We (the editor of this Journal) had the honor of being associated with him in passing this examination In 1874, the vernacular classes were converted into an independent medical institution under the name of the Campbell Medical School with a Superintendent of its own. He continued to deliver here lectures on Materia Medica, and became also second physician to the hospital attached to the school. He discharged the duties of these dual appointments till 1883, when an attack of paralysis, which had seized him two years previously, forced him to retire from Government service. He was one of the foundation members of the late Bengal Branch of the British Medical Association, at whose meetings he read several interesting papers.

"After his retirement from Government service, he devoted his labors to the establishment of a private medical institution. The Calcutta Medical School has thus sprung into existence. For three years he was its President, and honorary lecturer in Medicine. To promote the study of practical Anatomy, he induced Government, through the Director of Public Instruction, to allow skilled bodies to the use of the Institution for purposes of dissection. It was chiefly through his exertions also that an outdoor dispensary was established in connection with the school.

"In 1879 he was appointed a Fellow of the Calcutta University, and for several years Examiner of its candidates for medical degrees He was a member of the Calcutta Medical Society, a Vice-President of the Indian Medical Congress of 1894, and President of the Medical Association of India established in February of that year. The College of Surgeons and Physicians of Bengal has been established chiefly through his exertions. His love and respect for his parents were exemplary. He enjoyed a large and lucrative practice. He was very jealous of the legitimate dues of the profession, and he was very strict in the exaction of his fees. He was very economical in his expenditure. He had thus amassed an amount of wealth which was considerable for an Indian medical practitioner, not a small portion of which he devoted to unostentatious charitable purposes. He founded a charitable dispensary in the place of his birth, and many of his relatives and acquaintances have derived benefits at his hand.

THE BOMBAY PLAGUE COMMITTEE AND PREVENTIVE INOCULATION

THE Bombay Plague Committee still maintains its attitude of reserve, not to say, of obstruction to M. HAFFKINE'S preventive inoculation against plague, this attitude is all the more suprising and incomprehensible in face of the daily accumulation of evidence in favor of M. HAFFKINE'S method, nor are we aware that the Committee has done anything, or given any reason to justify the course it has adopted

One of the most noticeable features about present-day medicine is the important position assigned to serum methods, and no opportunity should be lost of investigating and testing some of the difficult problems of serum prophylaxis, serum diagnosis and serum therapeutics

The labors of many distinguished scientists, in all parts of the world, are now concentrated in this direction, so that no question of quackery arises. Such methods have the sanction of the highest authorities.

We do not think it will redound to the credit of the Plague Committee that it has placed itself in opposition to this movement, and that it is willing to let slip so favorable an opportunity of elucidating one of the problems of the day.

In the meantime inoculations are proceeding apace under the ægis of the Bombay Corporation, and M. HAFFKINE is likely to obtain all the information and data that he requires, and it is remarkable that his method has so grown in popular favor that natives of all classes are eagerly availing themselves of it.

In our issue of 16th December 1897, we gave a full account of M. HAFFKINE'S inoculations in the Damaun epidemic, and drew a very favorable conclusion from the results, which has since been amply justified.

Recent statistics have shown even more favorable results, as for instance the following from the *Times of India* which "deals with experiments which have been carried out on a large scale in the Khoja community by Dr. HAFFKINE at Poona and Bombay. AGA KHAN was at Poona in the height of the epidemic in March 1897, having with him some six hundred followers. Of these four hundred and fifty were inoculated Of the remaining one hundred and fifty who were not inoculated, 22 were at once attacked with plague. All except one died. Among the 150 inoculated there was not a single case. Concerning inoculations in the Khoja community as a whole, it should first be stated that every pre-

contagious, been taken to ensure that the appointment on the established side should be carried out with accuracy. The check thereon has been taken of the community, every inoculation is registered, and the history of each case can be closely followed. The facts then stand thus —The total number of Khojas in Bombay is little over 9,700. From the 27th of December to the 16th of February, 4,020 of them were inoculated, and when to these are added Khojas who were inoculated previous to the first-named date, the total is brought up to a little over 5,300, or a few hundreds in excess of half the community. The mortality statistics now available, however, relate to the period named, that is to say, from the 27th of December to the 16th of February, and in that period 87 deaths occurred in the Khoja community, of which 47 were acknowledged to have been from plague, 45 of these were among the inoculated, now a little less than half the community. Two deaths from plague were registered in the inoculated group, and the history of these two cases is as follows. One was a child six years old who had been inoculated eight and a half months before with only half a proper dose of serum, the other was that of a man inoculated two days after he began to feel unwell, and who died within seven days. The facts may well be left to speak for themselves

THE DEPUTATION TO THE SECRETARY OF STATE FOR WAR *RE* THE A. M S.

WE quote from the *British Medical Journal* —"A deputation from the British Medical Association comprising representatives from most of the chief centres of medical education in the United Kingdom waited on Lord LANSDOWNE, the Secretary of State for War, at Lansdowne House, on 20th January The deputation was introduced by Dr. FARQUHARSON, MP Sir THOMAS GRAINGER STEWART, Sir JAMES MOUAT, KCB, VC, Dr. SAUNDBY, Mr. MACNAMARA, Professor C B BALL, and Sir WILLIAM THOMSON stated the views of the deputation

'Lord LANSDOWNE in reply, assured the deputation that he was entirely with them in regarding with very serious concern the present condition of the Army Medical Staff The fact that comparatively little competition existed for vacancies, and that, as stated by the President-Elect and the President of Council, only inferior men presented themselves, certainly pointed to a very grave condition of things and the subject was having the most serious consideration given to it. In proof of this, His Lordship enumerated several matters which had come before him during his present term of office—the position of medical officers on courts-martial, medical messing, grant of leave for study, pay of the junior medical officers in India, length of the Indian tour, etc.—all of which had been dealt with, he thought, to the satisfaction of the profession. With regard to the question of the formation of a medical corps and the question of rank, His Lordship said he saw no objection to the formation of a medical corps, but it was intimately connected with the second question, which presented very serious difficulties He regarded some of the present medical titles as cumbrous and thought it ought not to be beyond the power of the authorities to discover more suitable designations. The matter was one which had been lately examined with great care, and he hoped shortly to be able to announce the decision of the War Office. In conclusion, His Lordship asked whether if the questions of corps and rank were disposed of satisfactorily, the War Office might rely upon receiving from the profession assistance in obtaining the best class of candidates in adequate numbers.

'Dr. FARQUHARSON, in thanking His Lordship for his kindness and courtesy, in receiving the deputation, said that if the contention of the medical corps and titles were made, it would result, in his opinion, in the Medical Department being placed in a most satisfactory position both as regarded the number of young medical men entering the service and the qualification of those entering.

THE RONTGEN RAYS ON THE WAR FRONTIER.

A CORRESPONDENT of the *Englishman* writes as follows to that paper :—

"One of the most important features of the campaign has been passed over almost without notice, and that is the Rontgen Rays apparatus which Surgeon-Major BENYON brought up Surgeon Major BENYON bought the apparatus at his own expense, being on leave at the time, and the help which this new development in surgery has been, is immense It would be impossible to detail the many experiments made, but this one is sufficiently marked to show of what use the invention is. A native officer of the 36th Sikhs was shot in the thigh on the return from the Datoi reconnaissance, and although the wound was probed carefully, no evidence of the bullet could be found Yet there being no second puncture of the skin, it was evidently still in the leg The limb swelled terribly, and the wounded man suffered great agony, and it looked as if there would be no other course but that the man should lose his limb The rays were applied and a mass was found quite in an unsuspected place. The surgeons cut down to it and found the bullet,—a slug—absolutely enveloped in the wool of a piece of the man's *posteen* which it had taken in with it So enveloped was the lead that it had appeared a soft mass when touched with the probe. As soon as it was removed a thorough drainage for the wound was arrived at, and the pain and swelling at once subsided and the limb was saved This is only one case out of many, but it is also important as it shows how dangerous a suiting the skin *postteen* is. A bullet striking a man thus clothed is certain to take much of the hair of the skin in with it, and the inflammation started by this extraneous matter must aggravate the case Just one more case in which Surgeon Major BENYON'S apparatus played an important part, before leaving the subject A man in the Borderers, I think, was hit in the foot, the bullet breaking up the instep bones and passing out through the sole of the foot The wound healed in every way satisfactorily, but the man found that he could not put his foot to the ground, and the cause of this pain absolutely baffled the doctors who examined the case. The rays were brought into play, and it was found that a piece of lead had forced its way right into his heel and was resting under the bone This was but a splinter, and had evidently chipped off the bullet as it struck against the bone An incision was made, the piece of lead found and extracted, and the patient at once recovered the use of his foot. But for the X-rays disclosing this the cause of the irritation would never have been discovered Surgeon-Major BENYON certainly deserves a recognition of his services as there are countless cases which his presence has aided to a cure, and in several cases he has saved wounded men from the loss of their limbs.

TESTIMONY IN FAVOR OF THE VALUE OF ANGLO INDIAN WORK IN INDIA.

TRUE to his genuine good nature, Surgeon-Colonel KENNETH MACLEOD, MD, FRCS, LL D., I.M.S. Professor of Military Surgery at Netley, writes to his old journal, the *Indian Medical Gazette* of 1st March, as follows :—"I was much interested lately in reading a report of a meeting which was held in Calcutta not long ago in support of the interests of the Anglo-Indian community The awakening which has lately taken place in this important section of the population of

[illegible] more [illegible] in any part of the [illegible] than the [illegible] or Anglo-Indian race, and they have done excellent work in the past in many capacities in public and private life, and contributed very substantially to the stability and efficiency of British rule in the East. In medicine, more particularly, they have done exceptionally well, and I recall with pleasure the recollection of many a bright intellect and kindly willing disposition which it was my duty to assist in training and guiding in the Calcutta Medical College. The aspiration for higher position and better education which has been manifested by recent proceedings is entitled to every encouragement and aid, and the formation of an Association in England to represent a class and advocate its claims and hopes is a sound step, and likely to be productive of benefit.

I have no doubt that in the competition which the Anglo-Indian must undergo in the future as in the past with foreign and indigenous races, he will more than maintain the character for patient industry, trustworthiness and practical efficiency which he has already acquired."

AN IMPORTANT NOTICE AS TO THE EMPLOYMENT OF UNQUALIFIED PERSONS AS ASSISTANTS OR OTHERWISE.

THE following notice is directed to be issued by Resolution adopted by the General Medical Council on 24th November 1897:—"Whereas it has from time to time been made to appear to the General Medical Council, that some registered medical practitioners have been in the habit of employing as Assistants in connection with their professional practice, persons who are not duly qualified or registered under the *Medical Acts*, and have knowingly allowed such unqualified persons to attend or treat patients in respect of matters requiring professional discretion or skill: and whereas in the opinion of the Council such a substitution of the services of an unqualified person for those of a registered medical practitioner is in its nature fraudulent and dangerous to the public health: The Council hereby gives notice that any registered medical practitioner, who is proved to have so employed an unqualified assistant, is liable to be judged as guilty of 'infamous conduct in a professional respect,' and to have his name erased from the *Medical Register* under the 29th Section of the *Medical Act* 1858.

"*Further*, in regard to the practice commonly known as 'covering,' the Council gives notice that any registered medical practitioner, who by his presence, countenance, advice, assistance or co-operation, knowingly enables an unqualified or unregistered person (whether described as an assistant or otherwise) to attend or treat any patient, to procure or issue any medical certificate or certificate of death, or otherwise to engage in medical practice as if the said person were duly qualified and registered, is liable to be judged as guilty of 'infamous conduct in a professional respect,' and to have his name erased from the *Medical Register*, under the said enactment.

"*But* the foregoing notices do not apply so as to restrict the proper training and instruction of *bonâ fide* medical students as pupils, or the legitimate employment of dressers, midwives, dispensers, and surgery attendants, under the immediate personal supervision of registered medical practitioners."

HEROIC CONDUCT OF ENGLISH PLAGUE NURSES AT THE MODYKHANA FIRE IN BOMBAY.

FEW acts of greater heroism have been recorded in recent years than the saving of their helpless plague-stricken patients from being burned to death, by the brave English nurses in Bombay.

[illegible] Hospital at Modykhana [illegible] which it [illegible] the daring of the [illegible] accomplishment.

Of the eighty-six patients who were in the hospital [illegible] injured by fire, this is [illegible] to be proud of.

Supreme over the elements of [illegible] stands out the magnificent courage, the [illegible] presence of mind, and the [illegible] self-control of these eight ladies; without a moment's hesitation they set about their dangerous task, and in a spirit of entire self-abnegation carried it out.

Their noble example was followed by the ward boys and police officers who were present, who rendered the most important assistance.

While the work of rescue was going on, the [illegible] containing all their own property, wearing apparel and valuables was totally destroyed, so that most of them lost everything except what they were actually wearing at the time.

This adds another to the many examples of heroic acts, and unselfish devotion to duty, of which the medical profession is so justly proud.

The names of these ladies are Mrs. CAMPBELL, Miss C. BROWN, Miss BUCKLEY, Miss CAMPBELL, Miss FRY, Miss SNOWDON, Miss WINSCOMBE and Miss WOOD.

MEETING OF THE STRAITS SETTLEMENTS BRANCH OF THE INDIAN MEDICAL ASSOCIATION.

A MEETING of the Straits Settlements Branch of the Indian Medical Association was held at 8-30 P.M. of the 15th February 1898.

The members present were:—Messrs. A. B. LEICESTER, W. R. ANGUS, H. J. GIBBS and A. HALE.

Mr. ABRIA wrote regretting his inability to attend through indisposition. Mr. J. A. REARDON attended as a visitor.

The circular calling the meeting was read and the minutes of the previous meeting confirmed.

Mr. CARNEGY'S query as to whether it was necessary for him as a member of Committee for Penang to forward correspondence and minutes of the meetings of the Penang members for publication in the *Indian Medical Record* to the local Secretary first, was put to the members who decided that it should be so done.

Papers on Pleurisy, Post-partum Hæmorrhage and Fractures of the upper extremity were set by Messrs. LEICESTER, ANGUS and HALE respectively and were gone into by the members present.

On Mr. HALE'S suggestion, the following subjects were selected for discussion at the next meeting.

Medicine.—Eruptive Fevers, (*a*) Variola, (*b*) Varicella, (*c*) Measles, (*d*) Scarlatina, (*e*) Enteric Fever.

Surgery.—Dislocations of the upper extremity, *e.g.*, shoulder and wrist.

Midwifery.—Pregnancy and the diseases of pregnancy.

The Honorary Secretary was directed to write for a copy of the Indian Medical Directory.

H. J. GIBBS, *Honorary Secretary.*

THE TEACHING OF SURGERY AT THE CALCUTTA MEDICAL COLLEGE.

THAT surgery is well taught at the Calcutta Medical College, goes without saying, as with two such strong exponents of the art, as Surgeon-Colonel J. O'BRIEN, M.D., F.R.C.S., and Surgeon Lieutenant-Colonel E. HAROLD CHARLES, M.D., F.R.C.S., the good old school is [illegible] and well served. During Dr. CHARLES' absence an excellent substitute was found in Surgeon Lieutenant-Colonel J. [illegible], M.D., C.I.E., but it

now unfortunately happens that Dr. O'Brien is desirous of going away to Europe on leave and there arises a serious difficulty in filling his place as Professor of Surgery to the College, and First Surgeon to the Medical College Hospital. So difficult is the situation that it is feared a "job" will be committed and a *bad* surgeon put in to do *good* surgery. Of course this is *bad* management, and as both the public and the students are certain to suffer by such an arrangement, we enter a respectful but earnest protest against an incompetent man being foisted on to the College staff. If the Government is in straits about finding a good man, it might very advantageously look about among the independent English Surgeons of Calcutta, and find a man eminently fitted to fill the Second Surgeoncy of the Hospital and the Professorship of Clinical Surgery, while Professor CHARLES (or temporarily Professor LUKIS,) might fill the first Surgeoncy and Professorship of Surgery during Dr. O' Brien's absence. We refer to Dr. ARNOLD CADDY, F.R.C.S. Eng. who might with immense profit to the College and Hospital be appointed to fill the approaching vacancy.

BOGUS AMERICAN DOCTORS.

THE *Medical Times and Hospital Gazette* says —"Among the army of unqualified practitioners now operating in the metropolis of the British Empire, the most audacious as well as the most successful financially, are the Yankee quacks. They fill the columns of our newspapers with the most wonderful stories of their cures of the blind, deaf and halt, and they attract thousands of dupes, who pay these pretenders large sums of money for their services, far beyond what they would think of paying hospital specialists for similar services. It is curious that these men never get into trouble for malpraxis, notwithstanding that they often perform risky operative methods of treatment, especially as they are unqualified and untrained when they arrive in England we have learnt recently that these men, on arriving, lose no time in visiting the wards of our special hospitals, and attending the clinics of the leading physicians and surgeons. The presentation of a neatly-printed card, describing the owner as Philadelphus Chicago, M.D, U.S.A, ensures the free run of the hospital wards and out-patient departments week after week, until they have picked up all that can be taught Sometimes they attend post-graduate courses in special subjects, and in this way, although the most arrant knaves, acquire a certain amount of skill, which enables them to carry on their quackery with the minimum of risk. Unless properly introduced, hospital tramps hailing from the United States, and calling themselves M,D 's,, should be rigidly excluded from seeing hospital practice except as patients"

FLIES AS CARRIERS OF INFECTION.

IN a recent number of the *British Medical Journal*, Surgeon-Major J. BATTERSBY, M.B, D P H, A.M.S, writes as follows — 'The recent discussion at the Royal Medical and Chirurgical Society on the prevention of enteric fever has re-called a letter of mine which you did me the honor of publishing in your valuable journal, dated 10th August 1895. In that article, in addition to the waterborne theory, I drew particular attention to the part taken by the common house fly as a possible carrier and disseminator of the disease. Any person who has visited Egypt or the plains of India during the earlier months of the hot weather can, I think, bear corroborative testimony as to the clouds of flies everywhere met with. Observation soon teaches us as to their disgusting habits and modes of feeding, utter disregard being shown as to whether they swarm in unenviable competition on the stools passed by enteric, choleraic, or dysenteric patients, etc, or choose the articles of food and drink of which we may be the unhappy partakers. In their rapid movements from one sort of filth or food to another, have we not got strong presumptive, if not demonstrative, evidence as to a possible manner in which the morbific material may be conveyed to the alimentary canal? Those of us who have witnessed the marvellous way in which the comma bacilli of cholera can multiply on agar jelly within twelve hours from the minutest inoculation, do not wonder why other bacilli (enteric for instance) cannot act a similar part when carried and deposited by flies, either by their limbs or dejecta, on suitable pabula. The bacillus typhosus has been demonstrated in the dejecta of flies previously fed on enteric matter."

ENTERIC FEVER IN INDIA.

SAYS the *British Medical Journal*,—"In consequence of the heavy mortality from enteric fever among British soldiers in India, the Government of India has under consideration a proposal to apply to the Home Government for a loan of the services of Dr. A. E. WRIGHT, Professor of Pathology at Netley, for a period of four months; possibly with a view to vaccination against typhoid, which we noted on November 6th. We understand that no definite arrangements upon this matter have yet been made.

Respecting the mortality from enteric in India, we may give the following numbers in the years 1891 to 1895 inclusive —

Year.	Admissions.	Deaths.
1891 ..	1,348 .	330
1892 ..	1,506 .	374
1893 ...	1,402 ...	370
1894 .	1,484 ...	408
1895 ...	1,544 ...	433

Total in five years, deaths 1,915, equal to approximately nearly two battalions at full strength The inefficiency and invaliding are not here considered.

In consequence of the large number of deaths from enteric at Agra, a special committee, composed of the military municipal, and cantonment authorities, will shortly be assembled to inquire into the cause of the outbreak The establishment of a Government dairy for the supply of milk to the troops and hospitals is under consideration"

THE LEGAL POSITION OF QUALIFIED MEDICAL MEN.

SAYS the *Lancet*.—The privileges conferred by law upon duly qualified—that is registered—practitioners, are as follows:

1. They can sue for their fees.
2. They can sign valid certificates.
3. They are exempt from serving as jurors, and also from the militia ballot.
4. They are entitled to practice medicine, surgery, and midwifery in the United Kingdom and the British possessions

A privilege conferred by Acts of Parliament becomes a legal right capable of enforcement by law, and it follows that all persons other than those duly registered cannot legally, in addition to other disqualifications, practice medicine, surgery, or midwifery in the United Kingdom or the British possessions.

It may be asked, what penalty is incurred by those who do so practise without being registered? To this the only answer can be that by so practising they usurp the legal rights of the duly qualified, and that by doing this they imply to a credulous public that they are registered, and that Section XL of the Medical Act, 1858, could be put in force against them. If magistrates and judges in dealing with these cases could be brought to understand that registration is the only portal for legal practice of medicine, no difficulty would ensue in dealing with unqualified practice. In cases about to come before the courts, these points will be driven home, and, it is trusted with success.

SANITARY WORKS ADMINISTRATION IN [illegible]

Indian Engineering calls attention to the [illegible] administration of sanitary works in this country, [illegible] wants to be desired.

On the authority of Mr. POTTINGER, Sanitary Engineer to the Government of Bombay, the North-West Provinces deserve commendation in this respect. Here an official specially selected on account of his Sanitary Engineering knowledge, was appointed for supervision of such works in 1887, synchronously, the Water-Works Act of 1891 was passed.

With power and funds thus possessed, aided by grants from the Local Government, efficient works were rapidly constructed, large firms of contractors being employed under supervision. Unfavorably contrasted with this is the system adopted in the Punjab. Here the projects are apparently both drawn up and executed by the P. W. D. Officers, who have not been specially selected for the duty and, consequently, have not made the study of water and drainage schemes their special study. As a consequence, works during construction have been altered and re-altered; in one case at least a disastrous failure occurred. The only other system which has proved as unsuccessful is that which was passed in Madras till about a year ago. At present the Madras Sanitary Engineer draws up schemes which are handed to the local officers of the P. W. D. to accomplish. This practically leads to the same result as the system in force in the Punjab.

LUSTIG'S PLAGUE VACCINE.

SAYS the *British Medical Journal*:—"It is announced that Professor A LUSTIG, Director of the Institute of Experimental Pathology in the University of Florence, has responded to a request from Bombay to forward a quantity of his plague vaccine by promising to send his assistant with an ample supply. The vaccine serum was tested last year in Bombay and Poona on patients with an encouraging result When the injections were made at an early stage a beneficial effect was noticed in six hours; the high fever and delirium ceased and general improvement ensued, the glands ceased to be painful after two or three injections, and convalescence was less prolonged than in cases which recovered without this treatment. Of thirty cases of the disease subjected to this serum treatment, only four died. In healthy persons the serum does not produce any disturbance, but there is reason to believe that it has the effect of protecting against plague infection. This, however, is a point upon which further evidence is required, as Professor LUSTIG when in Bombay, found it impossible to overcome the objections of the natives to submitting to the necessary injections. It will be remembered that his method of vaccinating animals against the plague bacillus was described by Professor LUSTIG and Dr. GALEOTTI in our columns last April."

PLUMBERS AND PUBLIC HEALTH.

THE answer that is usually given to anyone who is bold enough to criticise the elaborate system of sewers which modern sanitation imposes on the tax-payer, is that it is wrong to blame the system for faults in construction or workmanship.

As an academic display the reply might pass muster, but practically it is no answer at all, for all past and present experience has shown us that a perfectly constructed system of sewers is an impossibility, and that in spite of the countless patents and improvements every such system possesses many elements of danger.

Now that these things have been made fairly clear, people are beginning to set to work at the right end, and the land

[illegible]

[illegible] in Bombay, as that we may [illegible] prove both the position [illegible] the Public Health.

If there is such a thing as a [illegible] layers, we can earnestly hope [illegible] by it.

NEMATODE WORMS IN THE HUMAN BLOOD. NEW SPECIES FOUND IN AMERICA.

DR. PATRICK MANSON, in a paper read at the meeting of the British Medical Association in Montreal and published in the *British Medical Journal*, [illegible] calls attention to the presence of several species of nematode worms in the blood.

"It is probable," he says, "that we know of at least six nematode worms, or embryo nematode worms inhabiting the blood of man, namely, filaria nocturna (filaria Bancrofti—mature form), filaria diurna, filaria perstans, filaria Demarquayi, filaria Megalhaesi," and a new filaria of Demarara which provisionally he has named filaria Ozzardi.

It is a curious thing, he remarks, that amongst the Guiana Indians filaria nocturna appears unknown, which fact is doubtless correlated to the fact of the absence of Elephantiasis Arabum amongst them.

Dr. OZZARD mentioned that when travelling amongst the Indians, a woman was brought to him for treatment, who was always asleep. Dr MANSON has suggested that the sleeping sickness of West Africa is in some way bound up with filaria perstans

AGRA MEDICAL MISSIONARY TRAINING INSTITUTE.

WE gladly give prominence to the following advertisement:—"The Agra Medical Missionary Training Institute has for its object the imparting to Native Christian youths a systematic knowledge of Divine truth, to prepare them for the work of medical missionaries healing the sick and preaching the Gospel.

The students live in the Institution and receive their professional education and diploma at the Agra Government Medical College.

The medical curriculum extends over a period of four years

The classes commence on the 1st of July.

Intending students should however be present not later than the 26th June.

Liberal scholarships are provided for deserving students. It is also proposed to open a class for the training of compounders.

Prospectus to be obtained on application from Rev. Dr, VALENTINE, F.R.C.S Edin, Principal, 24, Drummond Road, Agra.

INOCULATION AGAINST PLAGUE.

HER Majesty's Justices of the Peace for the Town and Island of Bombay, held a meeting on Wednesday, 2nd March, in the Durbar Room of the Town Hall at which the following resolutions were unanimously passed.

First Resolution.—"That the members of this meeting being of opinion that more active steps should be taken to induce the inhabitants of Bombay more generally to avail themselves of the opportunities offered them of being inoculated against plague, undertake individually to use their personal influence in persuading the inhabitants of Bombay to get themselves inoculated."

[illegible]

... in order that the word may be ... [illegible]

[illegible] ... the word "suggest" was inserted in place of ... [illegible]

PLAGUE IN BOMBAY.

The number of deaths from plague for the week ending 15th February was 1,275; for the week ending 22nd February 1,082, and for the week ending 8th March 1,288 an increase of 136 over the week before.

Hopes are entertained that the present epidemic has reached its height and is now on the decline; it is however as yet too early to express a positive opinion.

It is observed that the disease is not spreading so rapidly, and that there are still seven districts that have not been attacked with any degree of severity.

It is interesting to note that the intensity and distribution of the plague is not the same as it was in the first epidemic, the districts over which it has passed suffering proportionately either less or more. It has, moreover, spread in the same direction from south to north and from east to west.

The last epidemic lasted twenty-six weeks before the permanent decline began; the week ending 22nd February closes the eleventh week of the recrudescence.

There is also a reduction in the death-rate from relapsing fever, but fresh cases continue to appear. It appears to have arisen in the districts following upon the famine.

More attention is again being paid to inward quarantine.

THE STORY OF A BARBER SURGEON.

We quote from the *Lancet*:—"An inhabitant of a little village near Mainz fell down and seriously injured his arm which became swollen and very painful. The village barber surgeon was appealed to and ordered applications of Goulard water—in German, Bleiwasser. The patient's wife, however, being very anxious, on arriving at the village shop made a mistake and asked for Wasserblei, or blacklead. On arriving at home she mixed this with water and rubbed it well over the injured arm, finally polishing the limb with flannel. This treatment had an excellent effect, the pain disappeared and the swelling went down. Next morning the barber called to see how the patient was getting on and was met by the delighted wife who congratulated him on the efficacy of his treatment. Upon seeing the arm, however, which of course was quite black, he was horrified. "What," he said, "no pain, of course he doesn't feel any pain, the arm is quite dead, gangrene has set in, and if the arm is not taken off at once he will die." A surgeon was duly sent for who, of course, discovered the real state of the case. What happened to the barber is unfortunately not stated, but we fear that most unqualified practitioners do not see such favorable results from their prescriptions as did their German brother."

FEMALE ABORTIONISTS.

The *Medical Times and Hospital Gazette* says:—"For the purpose of abortion, the modern trained midwife is invaluable. She can bring on abortion. She has learnt the art. Poor Mrs. Gamp was a failure at the business. She seldom succeeded in doing more than making the patient ill, though seldom dangerously so. Here is the *modus operandi* in such cases. The patient confides in the chemist, takes his medicines for a time, and finally is recommended to the

[illegible] ... If it goes ... skill ... of the ... as a rule, ... shall have no knowledge."

SPECIAL OFFICERS SANCTIONED FOR THE SANITATION OF CANTONMENTS.

With a view to improving the sanitary administration of cantonments, the Government of India has sanctioned the employment, as an experiment, of three specially qualified sanitary officers, who will be appointed to the stations of Lucknow, Rawalpindi and Umballa, and whose sole duty it will be to investigate the causes of disease and give practical advice in sanitary matters. These appointments will take effect from 1st April next, and will be for three years in the first instance. One of them will be held in abeyance, however, during the employment of Surgeon-Major Davies on special bacteriological investigations. The pay will be that of a Civil Surgeon in charge of a second-class station plus an allowance of Rs. 100, rising by annual increments to Rs. 300, and a deputation allowance of Rs. 5 daily when absent from the head-quarters station.

A LADY DOCTOR'S WORK PUBLICLY ACKNOWLEDGED.

A Poona correspondent writes:—"There was a large gathering of European ladies and gentlemen and native Hospital Assistants and others in the centre of the General Plague Hospital at the Sunsam to bid adieu to Dr. (Miss) Marion Hunter, who is returning to England from her duty in the Plague Hospital. General Duncan said they were all very pleased to attend and do honor to Dr. Hunter, a lady who had left her associations and her comfortable home in England to come out and work in this country among them. She had labored day and night among the plague-stricken. As a lady doctor, Dr. Hunter had earned the gratitude of the people of Poona, and not only of the patients she had ministered to. The name of Dr. Marion Hunter would not be forgotten in Poona."

BOMBAY AND THE PLAGUE.

The plague continues, writes the *Times of India*, and the general health of Bombay remains almost unchanged. The weather conditions have been variable during the week, hot and cold alternating suddenly, and the thermometer in-doors ranging from a minimum of 68 to a maximum of 84 Fahrenheit, with no appreciable influence on the progress of the plague. But concurrently with the plague, two other epidemics, influenza and relapsing fever, are affecting the public health. No record is kept of the mortality from influenza, but as the mortality recorded from diseases of the respiratory system has risen from a five years' average of 108 to 262 in the present week, some portion of the increase of mortality of 154 may be suspected to be due to plague and a smaller portion to influenza.

FURTHER MEDICAL ASSISTANCE FOR INDIA.

The Secretary of State for India has selected from the list of volunteers previously received, eight more medical men and two more medical women, who proceeded to India on 28th January, for work in the plague districts. If plague should spread to other parts of India (outside the Bombay Presidency) still further reinforcements will be necessary, and in order to meet such demands, the India Office invites volunteers to send in their names to be put upon the list. The terms of appointment and other information will be sent

to any qualified practitioner who may apply to the Revenue Secretary, India Office, Whitehall. The India Office intend also to send twenty-five more nurses, if the complement can be made up in time.

NEW MEMBERS OF THE INDIAN MEDICAL ASSOCIATION.

THE following have joined the Association since our last publication :—

Taharat Husain, Khan Sahib, C.M.S., 16th Regiment B. I. Malakand.

Syed Ahmad Husain, C.M.S., No. 5, N. Field Hospital, Camp Khar, Malakand.

Teghab Khan, C.M.S., Camp Khar, No. 5 N. Field Hospital, Malakand.

R. K. Gupta, L.M.S. Assistant Surgeon, E. B. S. Railway, Sealdah.

C. Mangaya Nayudu, C.M.S., Medical Officer, Chicacole.

Syed Abdul Khadir, C.M.S, Civil Hospital, Tharrawaddy, Burma.

F. H. Gleeson, Assistant Surgeon, Camp Barkai, (T. E. T.)

Julia Bissell, M.D., American Mission, Ahmednagar.

RETORTS WORTH NOTING.

MR. BAPTIST, a dark gentleman, of Portuguese descent from Bombay, was lately addressing a meeting in York, England. While thus engaged he was interrupted by one of the audience who called him a "black-man." I prefer being that to being a blackguard, was his prompt and immediate retort, and the man who had interrupted him had to look extremely foolish and hold his peace. *Apropos* of this, a contemporary tells a story which will repay perusal. A Scotchman once asked a Bengali gentleman what difference there existed between a Baboo and a Baboon. The answer was as prompt as it was effective. "The difference is only of one letter as between a *sot* and a *Scot*," and the interrogator had the table turned against him.

RIGOROUS PLAGUE RULES AT BOMBAY.

IT is stated that strict rules are to be introduced in order to arrive at the true causes of mortality in Bombay. It is proposed to demand in every case of death from whatever cause a medical certificate giving the true cause of death, failing this all bodies will be examined by the authorities at the place of the disposal and the cause ascertained. This has been heard with considerable apprehension by the Mahomedan community. Their customs do not admit of bodies being touched after death, and consequently the Mahomedans look upon the proposed regulations as a violation of their religious customs.

ROMAN TABLE MANNERS.

DR. T. LAUDER BRUNTON, in his "Lectures on the Action of Medicines," says :—"If any of you have been to Rome you will have seen in the palace of the Cæsars a small room adjoining the banqueting-hall; this is pointed out as being the place in which the Romans used to empty their stomachs when they had eaten so much they could eat no more Then, having emptied their stomachs, they went back and finished the feast. In these Roman feasts the food was admirable in regard to quality, and was objectionable only in regard to quantity.

MARRIAGE AS A PREVENTIVE OF INSANITY.

MATRIMONY, already noted as a specific for longevity, is now coming into prominence as a preventive of insanity. An American statistician has it that, so far as concerns the United States, six times as many bachelors as benedicts lose their reason. It is absurd to meet this grave physical truth with the flippant remark that those who marry are out of their minds at the time of taking the step. Figures are figures—even to bachelors.

WHERE TO FIND THE PLAGUE BACILLUS.

A MEDICAL friend from Hyderabad wires to us on the 14th March as follows :—"I have found the plague bacillus in the ground of infected houses in the villages of the Nizam's Dominion, so has Dr. BERNARD. The infection is in the floors and not in the walls or roofs of houses, and it can be traced about as certainly and almost as easily, as if visible to the naked eye. It can be destroyed with certainty by fire, probably also by water."

SHORT ITEMS.

In Paris the physicians have sufficient sense of the proper mutual protection which is their right to publish a "black book" containing the names of would-be swindlers, and to refuse attendance upon those who treat medical men disgracefully. Inhumanity cannot be brought forward as an argument in a large city well supplied with public charities, night service, quick ambulance system, and all other means of succour for those too poor or too mean to pay a doctor's fee.

The despatch from General Sir W. S. A. Lockhart, K.C.B., K.C.S.I., Tirah Expeditionary Force, published in the *Gazette of India* of the 5th March, besides making honorable mention of several members of the Army and Indian Medical Services, as well as of the Medical Department, says :—"The officers of the A. M. S. and of the I. M. S. have fully maintained their high reputation by their attention to the sick and wounded, both under fire and in hospital. The hospital arrangements were generally excellent."

The Royal College of Surgeons of Edinburgh offers for competition among its Fellows and Licentiates the sum of 100 guineas for an original unpublished essay on a subject in any branch of surgery, or in anatomy, physiology, therapeutics, or pathology bearing on surgery. The conditions of the prize will be furnished on application to James Robertson, Solicitor, 48, George Square, Edinburgh, Clerk to the College.

Dr. W. S. Playfair, having reached the age limit, will retire from the duties of the chair of Obstetric Medicine and the Diseases of Women and Children at King's College, London, together with those of the appointment of physician for diseases of women and children and physician accoucheur at King's College Hospital, at the end of the winter session. Dr. Playfair has been connected with King's College and King's College Hospital for the past thirty-five years.

It is announced from Naples that Dr. Alessandro Lustig, Professor of Experimental Pathology, has received from the Bombay Municipal authorities a pressing request to despatch, with all possible speed, a quantity of serum. The Professor has decided not only to comply with this request, but also to send to Bombay his chief assistant, Professor Nukon, whose services will be given gratis.

In a despatch from the late Major-General Yeatman-Biggs, Commanding the Kohat Field Force, that officer highly commends Surgeon-Captain C. B. Prall, I. M. S., and Miss Theresa M'Grath is mentioned as having rendered most valuable assistance to the medical officer. Her conduct is spoken of most enthusiastically by all ranks."

Brigade-Surgeon-Lieutenant-Colonel Sir George King, M.D., LL.D., F.R.S., was entertained to a farewell dinner, given in his honor, by his brother professors of the Calcutta Medical College. The dinner was held at the United Service Club, and Surgeon-Colonel Romford, Principal of the Medical College, presided.

Surgeon-Major A. W. D. Leahy, Civil Surgeon, 24 Pergunas, has been granted furlough for nine months, and Surgeon-Captain H. W. Pilgrim has been appointed to act in his room, in addition to his own duties. He is also appointed to act as Medical Inspector of Emigrants (Colonial Emigration).

Surgeon-Major D. Prain, Curator of the Herbarium, is appointed Superintendent of the Royal Botanic Gardens, Calcutta, of the Lloyd Botanic Garden, Darjiling, and of Cinchona Cultivation in Bengal: also Government Quinologist, and Director of the Botanical Survey of India, *vice* Sir George King, retired.

The designation of Diplomate in State Medicine, or D.S.M., being inconvenient to licentiates seeking appointments in England and elsewhere on account of existing laws, has been changed by the Conjoined Colleges of Ireland to that of Diplomate in Public Health, with the abbreviation D.P.H.

Plague has appeared at the village of Lodipur in the Jullundar district. The village is in the vicinity of those in which the disease is already prevalent. Up to the present some twenty-six villages have been infected, nineteen in Jullundar and seven in Hoshiarpur.

In consequence of the large increase of malaria at Barrackpore, an extensive drainage scheme is now being carried out at a cost of Rs. 17,000. Several of the existing tanks are being filled up, and every effort is being made to try and improve the sub-soil level of the station.

Surgeon-Colonel L. D. Spencer, Unemployed List, lately Principal Medical Officer, Punjab Frontier Force, officiates as Principal Medical Officer, Punjab Command, *vice* Surgeon-Major-General Harvey, who is acting as Director-General, Indian Medical Service.

A long constipation for a boy of nine years is that related by Dr. Dranitzion, in which, after thirty days without a passage, twenty-three and one-half pounds of feces was partly extracted with a spoon and partly spontaneously evacuated.

Surgeon-Captain T. B. Beach, A. M. S., having reported his arrival at Calcutta, is taken on the strength of the Presidency District, and will do duty at the Station Hospital, Calcutta.

Dr. Hall Hains of London was presented with a cheque for £114, the proceeds of a collection among his friends, towards discharging his heavy liabilities incurred in defending himself against a false criminal charge.

Surgeon-General G. Bidie, C.I.E., Madras Retired List, has been appointed Honorary Surgeon to the Queen, *vice* Deputy Surgeon-General H. V. Carter, Bombay Retired List, deceased.

Dr. (Miss) Cecilia Ferreira, who recently won a gold medal in surgery, has been appointed House Surgeon, Cama Hospital, Bombay, in place of Miss Benson, who is going on leave.

Dr. Ratonjee Dinshaw Dalal, who left England in November last, at thirty-six hours' notice, to undertake special medical work in the plague-stricken districts of India, has been appointed medical officer of Godavery District, Madras.

The candidates for the Indian Medical Service who have recently passed through the Army Medical School, Netley, have been warned to hold themselves in readiness to proceed to India at an early date.

Surgeon-Colonel B. Franklin, C.I.E., Surgeon to His Excellency the Viceroy, has been selected for the appointment of Honorary Physician to the Queen in the vacancy caused by the death of Surgeon-General Sir W. J. Moore, K.C.S.I., M.D.

Dr. Dudley Buxton has been appointed Consulting Anæsthetist to the National Hospital for Paralysed and Epileptic, Queen Square, London, which he has served in the capacity of anæsthetist for several years.

A special additional pension of £100 annually has been granted to Surgeon-Colonel Sir A. S. Lethbridge, M.D., lately Superintendent of the Andaman Islands and head of the Thuggee and Dacoity Department.

Surgeon-Lieutenant J. W. Cornwall, now on plague duty in Karachi, is appointed to be Health Officer of the Madras Municipality.

We are glad to hear that the libel case, brought by Dr Gungadin against the *Homœopathic Review of Calcutta*, has been compromised out of court.

Brigade-Surgeon Lieutenant-Colonel D. D. Cunningham, F.R.S., Professor of Physiology, Calcutta, has been granted an extension of furlough on medical certificate till the 25th of June next.

Extension of leave on medical certificate is granted to Surgeon-Captain F. O'Kinealy, I. M. S., from 10th March, to 9th June.

In a telegraphic despatch dated March 13th, the death is announced of Sir Richard Quain, M.D., F.R.S., Bart., President of the General Medical Council of Great Britain.

VITAL STATISTICS OF CALCUTTA.

Statement of Deaths from Principal Diseases in Calcutta during the week ending 12th February to the 5th March 1898.

Week ending.	Cholera.	Small-pox.	Fevers.	Bowel com-plaints.	Also other diseases.	Total.	Total popula-tion, according to the census of 1891.	Ratio per 1,000 of population per annum.
12th February	30	4	104	68	170	376	8,81,990	23·7
19th February	21	2	104	52	209	388	...	29·7
26th February	16	4	138	78	218	456	...	34·9
5th March	25	1	126	56	208	416	...	31·8

Current Medical Literature.

MEDICINE.

Friedreich's Ataxy.

A VERY interesting case is described by DR. J. SIMON in the *Progrès Médical*—interesting because the patient had been under observation for ten years and because CHARCOT had lectured on the case. The patient was an only child, without any inherited taint, who had at the age of two or three had some affection of the eyes and pain in the feet. The first note was to the effect that the child (at the age of ten years) had an asymmetrical skull, was frequently laughing, and seemed not very intelligent. Articulation was slow and [illegible]. There was absence of nystagmus, scoliosis and pes cavus, and no defect of sensibility or affection of the sphincters was present. The knee-jerk was not obtained and ROMBERG's symptom was very marked. Four years later, the patient was almost quite [illegible], with great weakness of the legs, deformity of the feet, and marked atrophy of the muscles of the lower extremities. The knee-jerk was absent, but sensibility was normal. There was well-marked horizontal nystagmus, and the speech was slow and stuttering. There was no scoliosis, but some deformity at the level of the first dorsal vertebra. The patient died suddenly, being found dead in bed, but no condition of the organs could be found to account for this. The spinal cord was unusually small, and combined sclerosis was found affecting the posterior columns, the pyramidal tracts and the direct cerebellar tract. Changes were also found in the cells of the grey matter.

Acute Abdominal Distension in Children.

THE condition described is that of a rapid and often extreme distension of the abdomen, which supervenes usually in the course of a severe illness, and generally but not always shortly before death. Often there is no assignable cause, but generally it is secondary to diarrhœa or gastro-enteritis. While it seems to be a part of the process of dying in some cases, it certainly hastens death in almost every case, and in some appears to be the actual determining cause of death. It frequently occurs as a complication of broncho-pneumonia, acute cerebro-spinal meningitis, acute tuberculosis, and splenic anæmia. Its onset is usually rapid, and occurs late in the disease. The stomach, small and large intestines, may be independently affected. The treatment must be prompt and vigorous; raise head and shoulders of child; hypodermics of strychnia; ammonia and brandy are good; tapping colon by passing large rubber-tube may do in some cases.—*Gaillard's Med. Jour.*

Chronic Rhinitis Treated by Glycerine Plugs.

TO overcome the discomforts of chronic catarrh derived from acute coryza due to influenzal infection, DR. VLADIMIR DE HOLSTEIN of Paris tried snuffing and insufflation of various powders, irrigating the nostrils with salt water or weak antiseptic solutions and even anointing them with borated vaseline or mentholated oil with little value and a great many untoward drawbacks, until he took advantage of the osmotic and decongestive properties of glycerine by twice a day passing a cotton wool tampon soaked in pure glycerine into the inferior meatus of the nasal cavity of a rhinitis patient, and leaving it there for 10 to 15 minutes at a time. Each application of glycerine causes a profuse flow of liquid mucous mixed with fatty materials and crusts, and permanent cure is rapidly obtained, except in cases of vaso-motor rhinitis of neurasthenic patients, who require constitutional medication in addition to local treatment.—*Gaillard's Med. Jour.*

Hot Air Baths in [illegible].

[illegible] finds that while [illegible] especially [illegible] forms of subacute [illegible] [illegible] the kidney and regulates [illegible] [illegible] sweating. [illegible] a nervous condition, [illegible] connected forms of nephritis [illegible]. [illegible] persist for some time and be accompanied by [illegible] temperature and quickened pulse, but [illegible] physiological effects and respiration is not at all affected, while the palpitation and headache following the [illegible] an hour. The urine lessens on the day after the bath, but the next day there is polyuria in which the density of the urine is in inverse ratio to its quantity. The [illegible] is [illegible] affected, but the albumen lessens gradually and disappears.—*Gaz. Hebd. de Méd. et de Chir.*

Hydrophobia of Long Incubation.

FELTZ and ARCHAMBAUD have reported the case of a man, twenty years of age, previously in good health, who after several days of dissipation was seized with chill and difficulty in respiration. The temperature was normal, the pulse not accelerated. There was complaint of pains radiating from the sternum, and difficulty in swallowing. In a short while, the face became pale, the expression terrified, the eyes deep. There was intense dyspnœa, with pharyngeal spasm and inability to swallow; also precordial pain, radiating toward the left arm. After a while furious delirium set in and sanguinolent froth was ejected from the mouth. Respiration and pulse became accelerated, the pupils dilated, cyanosis developed, and death ensued. A diagnosis of hydrophobia was made, and on inquiry it was learned that the patient had been bitten on the lip six and a half months previously by a rabid dog.—*N. Y. Med. Rec.*

Chlorosis.

DR. MOLLE calls attention to a chlorosis similar to that seen in young girls, which affects boys at about the time of puberty. The symptomatology includes general weakness, nervous disturbances, interference with digestion, palpitation, etc. A constant objective sign is the presence of a venous souffle exclusively limited to the femorals. These femoral souffles accompany or supplant those in the jugulars pointed out by other authors. In twenty young girls affected with chlorosis, examined during the past three years, the author has never been able to discover the presence of this femoral souffle. The discovery of this sign should make the diagnosis positive. Medical treatment and general hygienic care are called for during this critical period through which the subjects are passing.—*N. Y. Med. Rec.*

Leprosy Curable and Non-Contagious.

A COLONEL serving in India sixteen years ago consulted me for leprosy. He was most severely affected by the mixed form, in part tubercular and in part erythematous only. His eyes had suffered and he was quite blind. He is now, and has been for many years, quite free from all active leprosy manifestations. He is blind, and would be taken for a man in good health, but his hands and feet are still numb and liable to become dusky. He was married at the time that this disease began, and two children were born to him whilst it was at its height. These children are now fine, well-grown girls of sixteen and eighteen [illegible]. He has lived throughout [illegible] with his wife, and she retains good health.—*J. Hutchinson in Archives of Surgery.*

[illegible]
[illegible] of [illegible]

[illegible] *Medical* [illegible], July 1897, Dr. [illegible] a new method of treating strabismus, [illegible] to have [illegible] in cases of the [illegible] accompanying hypermetropia. His idea is to [illegible] spasm of the ciliary muscles and the associated action of the internal recti by over-correction with strong plus lenses. In an ordinary case of internal strabismus, if a pair of plus 5 or 6 D be used, the strabismus will be seen at once to materially diminish. He also uses prisms to still further repress the action of the internal recti. The following case will make his method plain. A woman, aged twenty-five years, had convergence of about five millimetres. The vision of the left eye was normal, of the right [illegible]. After using atropine 75 D of hypermetropia was found. Plus 5 D glasses were given for reading, and she was directed to hold the book at the farthest distance that she could read, and to read as long and as frequently as possible. For distant vision plus 2 D glasses were ordered, which gave but 20/?? of vision. In two weeks there was sufficient relaxation of the internal recti to admit of fusion of objects at twelve inches through the plus 5 D glasses. Three days later 5° of prism with base in were added to the reading-glasses, and the fusion was still maintained. From this time as much prism was from time to time added as could be fused for, thus producing a constant effort of the internal recti to relax their spasm. At the end of two months 24° of prism combined with plus D 5 spherical were used for reading. Also she could fuse at 12 feet with the plus 2 D or distance glasses, which now gave vision 20/?? In three months fusion was possible at all points with 4° of prism. A month later the patient could fuse for 8° of prism with the 2 D glasses, which now gave vision [illegible] instead of [illegible]. Vision was now normal in both eyes with plus 1 50 D. The writer concludes that this repression had further relaxed the ciliary muscle and revealed ·75 D more hypermetropia than the atropine had. In six months vision through the 2 D lenses [illegible], and their continuance was advised, with the occasional use of the sphero prisms for reading.—*Lancet.*

Common Sorethroat.

JAMES H ATLEE, of Chattanooga, Tennessee, finds that acute sorethroat, though common to all ages, more particularly belongs to childhood and may be predisposed by scrofula, syphilis, rheumatism or some cachexia directly aggravated by bad ventilation, foul air, defective drainage or impure drinking water, while the exciting causes are epidemics, cold, damp, inhaling pungent vapors, drinking hot or irritating liquids, exposure to infectious diseases with throat manifestations, and last but often chiefest, irritation of middle and posterior nares.

There is pain, itching, fulness of throat, with continued tendency to cough, coryza, fœtid breath, coated tongue, quick pulse, sometime febrile symptoms, pain on swallowing, impaired hearing and articulation, hoarseness, bright red fauces, swollen elongated uvula. By and by the mucous membrane becomes swollen, the tonsils inflamed and large and coated with a muddy white membrane deposited by the discharge from the nares, and a secretion which oozes from the tonsillar follicles as small yellow, or white dots, which do not coalesce (distinguish from diphtheria) on the surface of the tonsils, and when coughed off leave an ulcerated surface.

The treatment, which is simple, [illegible] in isolation, foot baths, [illegible] or [illegible], [illegible] in a room of [illegible] temperature and both [illegible] and throat well sprayed with antiseptic solutions. [illegible] spray [illegible].—*Gaillard's Med. Jour.*

[illegible] in [illegible] Peritonitis.

J. M. T. FINNEY describes [illegible] procedure which he has successfully employed in [illegible] of general suppurative peritonitis, including one following perforating typhoid ulcer. He makes a long incision, [illegible] of intestine outside the abdominal cavity [illegible] the patient for the time being), and then thoroughly and systematically wipes out the [illegible] with large pledgets of gauze wrung out of hot salt solution, paying special attention to the pelvic portion. Next, the small intestine is cleansed loop by loop and replaced in the abdomen, and the incision closed save at one point where a gauze drain protrudes. In order that a fair chance of success may be given, the operation should be performed within a few hours of the intestinal perforation which leads to the peritonitis.—*Brit. Med. Jour.*

Eversion of the Tunica Vaginalis for Cure of Hydrocele.

DR. X. DELORE reducing traumatism to a minimum, radically cures hydrocele and renders relapse impossible by obliterating the sac in the following way:—

Run a three inch cut along the anterior and most dependant part of the scrotum exposed, and rapidly enucleate the tunica vaginalis with the finger to a greater part of its extent, next incise the tunica and turning the testes out through the incision cut away one-third of the parietal layer of the tunica vaginalis, after which turn the remaining part inside out and fix it behind the testicle by means of catgut sutures. Replace the testes in the scrotum, interpose an iodoform gauze drain at its lowest part and close the cutaneous wound with silver sutures. The patient remains in bed for 8 days at least. For the first 24 hours there may be a sero-sanguinolent discharge, but the gauze may be removed at end of the second and the scrotal sutures on the eighth day, when the patient may, in the greater number of instances, resume his duties.—*Lyon Medicale.*

Tinnitus Aurium.

DR. DUNDAS GRANT summarizes thus the causes and conditions incidental to this annoying symptom: "A useful clinical division is into noises occurring (1) with defective hearing, (2) with abnormal acuteness of hearing, and (3) with normal hearing. If noise be pulsating in character, we can determine if pulsation is produced in middle or internal ear by observing whether it is arrested by pressure on the common carotid or on the vertebral arteries. If pulsating noise be lessened on lying down it is probably anæmic; if audible on auscultation, think of intracranial aneurism. If non-pulsating and low-pitched, it suggests venous congestion, especially, if made worse by lying down and relieved by purgation. 'Sea-shell' noise is usually due to contraction of tensor tympani, and occurs in chronic middle-ear catarrh, or may be reflex in character. In obstinate tinnitus with middle-ear disease always try injections of paraffine, through the eustachian catheter, and one-grain doses of gray powder night and morning. The constant current is of use only where there is no middle-ear catarrh. When the bromides fail to relieve try quinine experimentally, beginning with a [illegible] grain three times a day. In anæmic cases give iron with ammonium chloride."—*Med. Brief.*

OBSTETRICS AND GYNECOLOGY.

Fatal Inversion of Uterus from Traction on Cord.

CALLED in to see a woman whom he had eighteen months previously delivered with forceps at a twin labor, RAPAHNEWSKI found the woman pulseless and lying in a pool of blood with a mass as big as a child's head projecting out of her vulva. It was a total inversion of the uterus caused by a village midwife pulling violently on the cord in trying to extract the placenta, which still adhered partially to the uterus, to which were also attached the fragments of the membranes. The uterus was pressed back into the vagina when it suddenly reduced itself without further manipulation; but the patient, who had lost a large quantity of blood, lost consciousness and died in a few hours. The child was still-born, and an autopsy was not practicable.—*Monats. f. Geb. und Gynäk.*

Lithotomy Posture in Parturition.

REFERRING to his own practice of the last eight years, to DRIVER'S Observations on 300 lying-in women, to the experiments of WALCHER, KLEIN and BERMIER on dead subjects and to the view of the old obstetricians that nature makes the pelvis movable for parturition, Dr. OSCAR SCHMIDT of Moscow claims that by laying the woman on her back with her knees spread *wide* apart, her toes everted and her thighs flexed on to the pelvis in the lithotomy posture, *at the beginning of each pain*, parturition is facilitated by the intra-abdominal pressure being increased and enlarging the pelvic outlet through the maximum separation of the pubic bones and the tuberosities of the ischia producing a tendency to lateral expansion of the pelvis, and other pathological conditions that almost without exception minimise the risks of and rarely necessitating forceps delivery. With the cessation of each "pain" the limbs are allowed to resume their natural posture on the bed, so as to not over-fatigue the patient by keeping her in the same strained position for the entire labor period. This is especially true of primapare in whom there is so often a disproportion between the size of the head and of the vulva, compelling recourse to forceps which, used in the favorite position now in vogue, do great injury to the vagina and perineum, but in the lithotomy posture are harmless.—*Central für Gynäk.*

Tubal Mucosa in Tubal Gestation.

CLARENCE WEBSTER, like FRAENKEL and ABEL, claims to have detected a true decidua in the tube in cases of tubal pregnancy. BLAND SUTTON denies that a tubal decidua exists. WEBSTER insists that FRAENKEL, ABEL, and himself did not endeavour to prove that a decidual formation might develop in the gravid tube, but, on the contrary, discovered decidual tissue in examining tubes purely with the object of defining their histology. PARRY'S theory, on which SUTTON'S views are based, is a mere hypothesis, as there is no reason to believe that he ever examined a section of pregnant tube through the microscope. WEBSTER further maintains that if the placenta be examined in the case of an early pregnancy where escape into the peritoneal cavity has occurred, it presents appearances much the same as those found in the placenta of a miscarriage from uterine pregnancy, the maternal surface being covered with the thin superficial layer of the decidua serotina, irregular in its thickness and distribution. This irregularity is more marked in the case of the tubal than in the uterine placenta, because the development of the placenta in the tube wall is more irregular in the former.—*Brit. Med. Jour.*

Metrorrhagia and Marriage.

IT is usual to forbid girls suffering from persistent uterine hæmorrhage to marry till the menstruation stops more or less; but Mr. EUSTACHE tells of how for five years the whole gamut of tampons, dilatations, hæmostatics, lotions and even columnisation of the vagina failed to even diminish a rebellious metrorrhagia in a young girl, who became so weak that she was scarce able to leave her bed for more than 45 to 100 minutes per day. She accepted an offer of marriage, and during her engagement columnisation was practised every third day, so as make a good appearance and sit up in the presence of her betrothed who was not taken into the secret. The discharge was quite as free (as before) on her wedding day, but entirely stopping the next morning did not come on for three months. Everyone thought she was pregnant, but on the 92nd day there was a return of the menses with pain and a very profuse flow which ceased spontaneously on the fourth day and gave rise to a no less stubborn amenorrhœa which threatens to remain permanent as it has for two years resisted the entire gamut of emmenagogues, but though her hysterical temperament persists, the woman's general health seems to have improved and she has gained considerably in color, weight and strength.—*Jour. des Sci. Méd. de Lille.*

Is Operative Interference Legitimate in Non-Hæmorrhagic Fibroids after the Menopause?

IT is not easy to lay down an emphatic yea or nay, and Dr. G. APOSTOLI of Paris tells how Madame S——, *æt.* 57, who ceased to menstruate at 52, never had metrorrhagia or abdominal pains nor bore a child, but was hysterical all her life. Marrying at 26, she 18 months later passed through a typical *grossesse nerveuse* (pseudo-cyesis) and was widowed at 33. From 40 to 45, she suffered much from rheumatism, and at 53, she had severe dyspepsia with loss of appetite and flesh and such an intolerable pain in her head and the whole of her body that prevented her work and forced her to consult a gynæcologist, who detected a large uterine fibroid of which she was not aware, as it gave rise to neither bleeding nor local pain. After the removal of this tumour Madame S.——improved wonderfully in health and Dr. APOSTOLI, who is inclined (*Treatment*) to attribute the improvement to the shock of the operation determining a healthy reaction in the nervous system of a hysterical constitution and concludes: (1) that except where positive indications such as re-appearance of the hæmorrhage or marked increase in the size of the tumour, women who have uterine fibroids after the menopause and who do not present symptoms directly referable to the presence of the tumour should be subjected to surgical procedures, and (2) such tumour ought not to be regarded as the cause of disturbances of the nervous system unless general and local medical treatment have failed to relieve them. (3) Such cases may be submitted to operation only when such general treatment (coupled with local measures such as douche, massage and electro-therapy) has completely failed to give relief.—*La Tresse Médicale.*

Trace of Gaertner's Duct in Adult.

BURCKHARDT examined a uterus removed for obstinate endometritis. The patient was 41, and had borne three children; the last was 9 years of age. A distinct cystic body was found in the wall of the cervix somewhat anteriorly. It measured 14 mm., or just over half an inch in length and 7 mm. in breadth, and contained an albuminous fluid. It was lined with a perfect layer of cubical epithelium, which had no connection with the histologically different epithelial layer of the cervical mucous membrane. From its position and structure this cystic structure was undoubtedly a relic of Gartner's duct.—*Brit. Med. Jour.*

ORIGINAL ARTICLES.

CATARACT IN THE MADRAS PRESIDENCY OF SOUTHERN INDIA. WITH A STATEMENT OF FIVE HUNDRED CASES.

By SURGEON-MAJOR T. H. POPE, M.D., C.M., F.R.C.S., B.Sc. Edin.

Surgeon Superintendent, Madras Ophthalmic Hospital, Fellow of the Madras University.

CATARACT has been so thoroughly investigated and discussed by ophthalmic surgeons in all parts of the world that little, if anything, new can be laid before the profession anent this interesting lesion. The object of this article is to show the amount of good work done by the Madras Ophthalmic Hospital, which belongs to the State and is maintained at State expense for 80 beds (in 11 wards) for in-patients of both sexes, of all creeds and nationalities, and an out-patient department with an average daily attendance of 120 patients. The professional work is carried on by two qualified Hospital Assistants and an Assistant Surgeon under the orders of a Surgeon of the Indian Medical Service, who is termed the "Superintendent" and has to himself perform *all* operations, whether major or minor.

From 1,900 to 2,000 operations (of which 70 per cent, at least, are extraction of lens for cataract) are annually performed at this hospital, whose systematic management etc. continue to be conducted even to the smallest details of clinical and other duties, on the lines initiated and kept going for many years by Brigade-Surgeon DRAKE BROCKMAN, F.R.C.S., (retired) who earned a world wide reputation as an ophthalmic Surgeon and brilliant operator, and was the writer's direct predecessor as Superintendent.

Of the 80 beds in hospital the 60 are which allotted to native patients are almost always full, although the cases that are operated on are kept the shortest time compatible with the safety of the eye, to enable attention to be given to the large number constantly seeking admission. Thus while only those cases, where operation is followed by iritis, cyclitis or panophthalmitis, are permitted to remain in hospital for prolonged periods, all those whose lenses have been extracted are discharged on the Wednesday or Thursday following the Saturday they were operated on, and the success of each operation is tested by examining the state of the vision on the evening of the day of discharge from hospital. If there is the slightest doubt as to the satisfactory condition of the eye operated on, the patient is kept under observation by being asked to attend as an out-patient for a few days after discharge from hospital.

The following table, which gives some little idea of the magnitude of work done in this hospital, shows the number of operations performed from 5th November 1892 to 2nd April 1893, i.e., on 21 Saturdays.

Description of Cataract.	MALES.					FEMALES.					Grand Total.
	Hindus.	Mahomedans.	Christians.	Parahs.	Total	Hindus.	Mahomedans.	Christians.	Parahs.	Total.	
Cortico nuclear	148	13	4	1	166	175	12	1	1	189	354
Hard ..	31	1	3	1	36	21	..	..	1	21	58
Morgagnian ..	16	2	..	..	20	16	..	..	..	16	36
Traumatic ..	7	..	1	..	8	..	..	..	..	..	8
Congenital ..	3	..	..	..	3	3	..	..	..	3	6
Hard black ..	3	3	..	..	6	..	..	..	..	..	6
Total ..	210	19	8	3	239	214	12	1	2	229	468
Iridectomies ..	14	3	..	..	17	17	1	..	..	18	35
Escape of vitreous	14	2	1	..	17	15	..	..	..	15	32
Accreta operations	3	..	..	..	3	3	..	..	..	3	6
Teale's suction..	..	..	..	..	..	2	..	..	..	2	2
Vectis used ..	4	1	..	1	6	3	..	..	..	3	9

In the above classification the term Christians includes Europeans, Eurasians and East Indians, who form a very small percentage of hospital cases, and in many respects resemble their brethren and forbears of the West as far as surgical operations and the results thereof are concerned, but among the East Indians are a number of persons (native converts perhaps) who have no European trace about them, and these, as a rule, are of feeble constitution in old age, and though they stand the operation well, they do not afford so hopeful a prognosis as the European.

The Hindus are natives of India, and though they profess many castes and creed, may be divided into flesh-eating and non-flesh-eating, in which latter category are the Brahmins or priestly tribe, and who being very particular as to food and cleanly in their habits enjoy better health than most other Hindus; but they are peculiarly subject to (1) diabetes mellitus and (2) granular conjunctivitis, which some surgeons look upon as serious complications in cataract operation. The writer is not prepared to agree with this, as he has never been able to satisfy his mind as to what is really meant by a diabetic cataract, and has frequently successfully extracted lenses from natural cataracts of persons whose urine was heavily charged with sugar. In acute granular conjunctivitis accompanied with photophobia, purulent discharges, blepharospasm or a burning sensation in the mucous of the palpebral conjunctiva, operation is forbidden, but it can be safely and successfully resorted to in the chronic stage so long as proper antiseptic precautions are taken and there is neither pain nor symptoms present referable to active mischief. The antisepsis should be supplemented by gently brushing the everted lower lid with a solution of nitrate of silver (grs. 3 to grs. 5 to distilled water ℥). The normal eye of the Brahmin is a typically fine organ in which operations, when performed, lead to most satisfactory results.

The largest number of hospital patients are flesh-eating Hindus, such as Moodeliars, Naidus, Chetties, Pillais, Sudras, &c who frequently (not always) yield good operative results and are physically stronger than the finely nerved Brahmin, but are not so generally healthy nor is the sclerotic coat so white, and the ocular conjunctiva is often congested and stained brown while the lids are thick and coarse.

The Malayalis or Malabaris are Southern Indians, who may or may not be flesh consumers, and are of inferior physique. With them a cataractous condition of the lens is often associated with atrophy or other functional deterioration of the optic nerve which may itself cause blindness and render it useless to operate for cataract. In rare instances this nerve failure has been improved by hypodermic injections of strychnine solution.

The Mahomedans as members of a warrior class are generally fine specimens of the native and constitutionally strong by virtue of their mixed diet. Their eyeballs resembles those of the Brahmin and react favorably to operations.

The *parsahs* belonging to the lowest class have no caste principles. They eat everything, are intemperate as a rule, and not very cleanly. They range from the robust hard working cooly (labourer or navvy) to the weakly half starved scavenger, and do not take kindly to

operation, when that is required, supplemented by a few statistics of cataract forms.

The subjects for operation were all adults, from 21 years old to 69 years of age, and may be classified, as under, when it will be seen that the largest number fall between the thirtieth and fiftieth years of life:—

Nuclear Cataracts.	Right eye operated on.	Males.	Hindus	...	...	6	7	39	34	8	92
			Mahomedans	...	...	1	...	3	3	1	8
			Christians	...	...	...	...	...	2	...	2
			Parishs	...	...	...	...	...	...	...	...
			Total	...	...	6	7	32	39	9	92
		Females.	Hindus	...	...	6	45	37	42	2	102
			Mahomedans	...	...	...	...	4	3	...	7
			Christians	...	...	...	...	...	...	...	...
			Parishs	...	...	...	...	...	...	...	...
			Total	...	...	6	15	41	45	2	109
		Total of both sexes.		...	...	11	22	73	84	11	201
Cortico.	Operated on.	Males.	Hindus	...	...	3	8	18	30	7	66
			Mahomedans	...	...	1	...	1	3	...	5
			Christians	...	...	...	...	...	2	..	2
			Parishs	...	...	...	1	...	...	...	1
			Total	...	...	4	9	19	35	7	74
	Left Eye.	Females.	Hindus	..	1	3	8	30	29	2	73
			Mahomedans	...	...	...	...	3	2	...	5
			Christians	.	...	...	...	...	1	..	1
			Parishs	..	...	...	...	...	1	...	1
			Total	...	1	3	8	33	33	2	80
		Total of both sexes			1	7	17	51	68	9	154
Grand Total of R. & L. Eye					1	18	39	124	152	20	355
Hard Cataracts.	Right eye.	Males.	Hindus	...	...	...	...	3	10	5	18
			Mahomedans	..	...	...	...	...	...	...	...
			Christians	...	...	...	...	...	..	1	1
			Parishs	...	...	...	...	..	.	.	..
			Total	...	...	...	...	3	10	6	19
		Females.	Hindus	...	...	...	...	7	3	2	12
			Mahomedans	...	...	...	...	...	...	...	...
			Christians	...	..	..	...	...	...	...	..
			Parishs	...	...	...	...	...	...	...	...
			Total.	...	...	...	...	7	3	2	12
		Total of both sexes			...	...	...	10	13	8	31
	Left Eye.	Males.	Hindus	...	...	.	4	4	4	1	13
			Mahomedans	...	...	...	...	...	1	...	1
			Christians	...	...	...	...	...	1	1	2
			Parishs	...	...	...	...	..	1	...	1
			Total	...	...	...	4	4	7	2	17
		Females.	Hindus	.	...	...	2	3	4	..	9
			Mahomedans	..	...	...	...	...	...	...	...
			Christians	...	...	...	...	...	...	...	...
			Parishs	...	...	...	...	...	1	...	1
			Total	..	...	...	2	3	5	...	10
		Total of both sexes			...	...	6	7	12	2	27
Grand Total R. & L. Eyes					...	...	6	17	29	10	66

Morgagnian.	Right.	Males.	Hindus	...	...	...	...	1	1	...	2
			Mahomedans	...	...	...	...	...	...	...	...
			Total	...	...	...	...	1	1	...	2
		Females.	Hindus	...	...	...	...	3	5	...	10
			Mahomedans	...	...	...	...	...	...	...	...
			Total	...	...	...	...	3	5	...	10
		Total of both sexes			...	...	...	4	6	...	12
	Left.	Males.	Hindus	...	...	...	...	2	4	3	9
			Mahomedans	...	...	...	...	...	...	...	...
			Total	...	...	...	1	2	4	3	9
		Females.	Hindus	...	...	...	...	4	2	...	6
			Mahomedans	...	...	...	...	...	...	...	...
			Total	...	...	...	...	4	2	...	6
		Total of both sexes			...	...	1	6	6	...	14
Grand Total R. & L. Eye					...	...	1	10	12	1	36
Traumatic.	Right.	Males.	Hindus	...	...	3	...	2	1	...	6
			Christians	...	...	...	...	...	...	...	...
			Total	...	...	3	...	2	1	...	6
	Left.	Males.	Hindus	..	1	...	...	...	...	...	1
			Christians	...	1	...	...	...	...	...	1
			Total	...	2	...	...	...	...	...	2
Total R. & L. Eyes					...	5	...	2	1	...	8
Congenital.	Right.	Hindus	Male	...	...	1	...	...	...	...	1
			Female	...	...	1	...	...	...	...	1
			Total	...	...	2	...	...	...	...	2
	Left.	Hindus	Male	...	...	2	...	...	...	...	2
			Females	...	2	...	..	...	...	...	2
			Total	...	2	2	...	...	...	...	4
Total R. & L Eyes					2	4	...	...	...	...	6
Hard Block.	Right.	Males.	Hindus	...	...	...	...	...	1	1	2
			Mahomedans	...	...	...	...	...	1	...	1
			Total	...	...	...	...	...	2	1	3
	Left.	Males.	Hindus	..	...	...	...	...	...	1	1
			Mahomedans	...	...	...	...	...	1	1	2
			Total	...	...	...	...	...	1	2	3
Total R. & L. Eyes					...	...	...	...	3	3	6
No. of Eyes operated on.			Right	...	13	24	98	113	21	265
			Left	...	13	24	66	85	13	204
			Total	...	2	37	48	156	198	34	469
Races who were submitted to cataract operation			Hindus	...	2	34	48	148	178	29	425
			Mahomedans	...	...	2	1	11	15	2	31
			Christians	...	...	1	...	...	6	2	9
			Parishs	...	...	...	1	2	3	...	4
			Total	...	2	37	50	159	202	34	469
Sexes.			Males	...	...	24	33	98	132	25	312
			Females	...	2	13	17	61	70	9	157
			Total	...	2	37	50	159	202	34	469

[illegible] in Indian [illegible] hospitals to work [illegible] to have everything arranged on the [illegible] principle, for once the patient is on the table no time [illegible] be lost in completing the operation as quickly as [illegible] yet there must be no hurry or bustle for the 2½ to 3 minutes it takes to extract a lens. The implements required and which should be ready to hand are :—(1) Pledgets of cotton wool, (2) lint pads for eyelids, (3) binder tail bandages with nose slit, (4) cotton-wool swabs, (5) finely powdered iodoform, (6) solutions of atropine sulphate, eserine sulphate, and silver nitrate containing 4, 2, 3, and 5 grains of the salt to an ounce of distilled water, (7) spring speculum, (8) catch forceps, (9) Liebrich's cataract knife with curette, (10 Bowman's stop needle, (11) iris forceps, curved and cross action, (12) iris scissors, (13) vulcanite scoop (14) wire vectis.

As soon as a patient is admitted, he is well bathed and put into hospital clothes. Both eyes are thoroughly cleansed morning and evening till the day of operation, with saturated solution of boric acid, after which the effected eye is treated with atropine solution and bandaged. On the coming Saturday morning the cleansing and atropine are carried out as usual, and just before operation the cornea is anæsthetized by repeated instillations of 4 per cent. cocaine hydrochlorate solution. After this, in compliance with instructions laid down by Brigade-Surgeon DRAKE BROCKMAN, the patient is laid on his back on the operating table, with his head raised and facing a window which lets in ample light. The surgeon, who should be ambidextrous, stands behind the patient's head (so as to operate on the right eye with his right hand and the left eye with the left hand) and (1) separating the lids to (2) secure the eyeball by catch-forceps in the vertical-meridian of the cornea into (3) whose anterior chamber he plunges the stop needle (Bowmans) and direct it from a point 2 *mm.* below the horizontal tangent of the sclero-corneal margin towards the centre of the eyeball, to pierce the anterior capsule of the lens with two punctures at right angles to each other. Very gently and slowly withdrawing the needle (4) replace it with the knife, sharp edge up, and, depressing the handle till the point is horizontal with the point of puncture, push the blade in as far as it will go without pricking the patient's nose, but cutting through the sclero-corneal margin of the cornea and finish the section *very gently* while withdrawing the blade. (5) If necessary, perform iridectomy. (6) Start the lens from its bed by slight pressure of the catch forceps and gently depressing the upper lip of the wound follow the escaping lens carefully with the curette, as well as stroke over the anterior surface of the cornea to clear the anterior chamber of a large quantity, if not all, of the soft cortical matter (7) Relaxing speculum to draw the lids forward, swab out the anterior surface of the eye ball and palpebral enclosure (8) over which sprinkle iodoform and removing the speculum (9) lay lint smeared with boric ointment or white vaseline over the lids of the eye operated on. (10) Apply pledgets of cotton-wool covered with (11) dry lint over both eyes and (12) bandage closely. In cases of double cataract the second eye is usually operated on the Saturday following that on which the lens of the first eye was extracted.

Classification of cataracts.—A few words are necessary, though but little [illegible] to [illegible] cataracts, of which there are many [illegible] which may conveniently be classified as :—(a) [illegible] which corresponds to the mixed cataract of English text-books, is a stage between the (e) soft and the (c) hard cataract and is the kind most frequently seen [illegible] Southern India. The cortex, of which a portion is [illegible] left behind after expression of the lens, is decidedly [illegible] than the nucleus which is white ([illegible] amber or brown) opaque, not firm in consistence and is surrounded by partially opaque cortical matter ; (b) [illegible], which is a hard cataract that has undergone pathological softening which usually begins in the cortical portion of the lens which becomes more or less fluid and milky-looking. In these cases, which generally yield excellent results, the lens may be removed in its capsule or its diminutive nucleus and milky contents discharged by puncturing the capsule which can afterwards be removed by gentle traction with the curved iris forceps. The (c) hard and (d) the *black* cataracts, which may be classed together, most frequently necessitate iridectomy as the lens is opaque (sometimes translucent in the black) and both cortex and nucleus are hard and inseparable, while the capsule is more often adherent to the lens, though the attachments of the lens do not seem to be so firm. (e) The *soft* or "lamellar" cataract of different text-books is soft throughout and, while rarely seen in natives over 38 years old, is most often met with in those who are under 18 years of age. The opaque lens is either white or bluish-white and when examined by focal illumination of the eye after full dilatation of the pupil, the capsule looks like mother-of-pearl. TEALE's suction method used to be employed by the writer who now makes it a rule, when the sufferer is over 9 or 10 years of age, to remove the lens by the method followed in dealing with cortico nuclear cataracts (*f*) In *capsular* cataracts both the nucleus and the cortex of the lens are absent, while the capsule which remains to obstruct vision by its opacity may be removed by vertical downward insertion of a larged-sized keratome into the anterior chamber, and *very gentle* traction on the capsule with a cross-action iris forceps. (*g*) *Congenital cataracts*, in which the opaque lenses are essentially soft in consistence and which affect both eyes to the same extent, are usually seen between the first and seventh year of life and always necessitate chloroform and strict asepsis when breaking up the lens to render TEALE's suction method successful.

Remarks—It is but natural for a surgeon to speak up for and seem quite satisfied with his own methods of operation, even though that method may not be free from small imperfections as well as have great room for improvement in certain directions, still the writer, who has tried all the methods he has seen and read of, prefers to to stand by those methods that have given him such excellent results in the Madras Ophthalmic Hospital from May 1892 to July 1895. Thus while the majority of ophthalmic surgeons in Great Britain and on the Continent invariably perform iridectomy as a routine practice for safety sake before proceeding to expel the lens, the writer has had only 63 failures (or 3·15 per cent.) in operating on 1,315 Cortico-Nuclear, 381 Hard, 217 Morgagnian, 23 Traumatic, 25 Congenital, 13 Black, 6 Capsulary

and 20 soft cataracts. He did *not resort* to iridectomy in more than 190 (*i.e.*, 9·5 per cent.) of these cases, allowing 'mpdis intimimus ibis' he admits that to *never* perform Iridectomy is unscientific and often dangerous, but as he emphatically maintains that to *always* perform is needless and interfering, he has recourse to it only when he meets with (1) an iris that will not dilate sufficiently, (2) adhesions of the iris, (3) a bulky lens, (4) a too small corneal incision (5) a lens more firmly set than is the case, more specially in younger patients. In dealing with *Traumatic* cataract the wisest method is to adopt appropriate treatment to subdue the inflammatory condition accompanying the trauma, and then removing the injured lens either by discision followed by TEALE'S suction or by the usual way of dealing with cortico-nuclear cataracts.

THE NATURE AND PREVENTION OF PUERPERAL FEVER.*

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THOUGH from about B. C. 400 when HIPPOCRATES described some 8 cases sufficiently for easy recognition, there has never been any lack either of material to study this affection or of theories to account for its occurrence, still it was not till A. D. 1847, when SEMMELWEISS' affirmation of child-bed fever being due to absorption of animal putrefactive products, led to the laying down of a solid foundation for building up a true knowledge of the nature of puerperal fever. Since then PASTEUR, LISTER and KOCH, with hundreds of other observers, have added much to our knowledge by proving the relation of various organisms to many diseases, puerperal fever amongst them: so much so that though it is true that there is no appreciable alteration discernible in the incidence of the affection on the general population, and that in every 1,000 deliveries nearly three women die from this preventible disease, while for every death that occurs MANY cases of prolonged illness and suffering are traceable to the same cause, still for the last 20 years puerperal fever *has* been almost entirely abolished in all properly conducted lying-in hospitals.

The reason for this sad state of affairs is, that the real nature and origin of the disease is not sufficiently, if at all, understood by a large proportion of those whose business it is to attend on labors, but though as a profession we are responsible for pointing out *all* that should be done, the remedies are complex and difficult of application since they have to do not only with ourselves, but also with the very large body of women who habitually or at odd times act as midwives and after nurses.

There is a large amount of truth in Professor SINCLAIR'S complaint† that like the Israelites of old the teachers of midwifery have to be content to continue to make bricks without straw by loading the student with precepts only, where example is most needed to give the skill to enable him to carry these precepts into safe and effective practice, and that while particular attention is paid to surgery, which will not form much of their work, our students are not *taught* midwifery which *will* form a very large part of it. Experience to be of any practical value must be built on a secure foundation of obstetric knowledge well and truly implanted in our students; but it is impossible for that foundation to be truly laid so long as the practical instruction is carried out in the imperfect and slip-shod manner, which generally obtains at present, and it is discreditable that in a big city like Birmingham, with "Forward" for its motto, there is no lying-in hospital where efficient instruction can be given to nurses and pupils, in the proper method of examining or conducting a labor case in the application of antiseptic principles and in the treatment of the various complications that may arise. Under this backward state of affairs it all the more behoves us, as practitioners, to compare notes from time to time and to consider how far our opinions and practice are in accordance with the latest advances in knowledge.

Of the whole number of cases in which there is rise of temperature after delivery, about one-third are *not* due to affections of the genital canal, and a large proportion of these is due to affections of the breasts and nipples. But as the remaining two-thirds which *do* constitute puerperal fever, properly so-called, are due to microbic infection of the genital canal, we have to consider (1) what are the organisms or microbes that are concerned, (2) whence their source, (3) how they affect the patient, and (4) how the infection may be prevented.

I. *The organisms concerned* in puerperal infection belong in the majority of cases to three sets of microbes:—(1) the pyogenic cocci, specially the streptococcus pyogenes and the staphylococcus pyogenes aureus; (2) the gonococcus, and (3) putrefactive organisms. These three classes vary in the severity of the symptoms they produce. In the streptococcus cases, which are most severe and the most frequently fatal, there is usually excessive loss of blood. The gonococcus cases are less severe but frequently very persistent, while the discharges are markedly purulent, and the putrefactive cases which are the most amenable to treatment are accompanied by stinking discharges. Thus of 179 cases of puerperal endometritis investigated by KRONIG of Leipzig,‡ 75 were caused by the streptococcus pyogenes, 4 by the staphylococcus pyogenes aureus, 50 by the gonococcus and 50 by putrefactive organisms. Besides those above enumerated there are other organisms which less commonly produce puerperal infection, and of these the bacterium coli commune and the streptococcus of erysipelas are the most frequent and the most important. Scarlet fever "breeds true" in the puerperal patient; but as scarlet fever is frequently complicated by pyogenic cocci, it is easy to see how from such a case true puerperal infection may arise, and the diphtheria organism may *very* exceptionally invade the injured vulva and vagina of the puerperal woman.

II. *Whence are these organisms derived?*—Nothing is definitely known beyond that everything that surrounds the patient, whether walls, furniture, clothing, platter, food, water or air and even her friend, the entire body literally teems with countless hordes of micro-organisms of numer-

* Read before the Midland Medical Society and specially reported for the *Indian Medical Record*.

† *British Medical Journal*. II, 1897, page 869.

‡ Cent fur Gynak. No 16, 1896, page 432. Atiologie und Therapie der puerperalen endometritis.

[illegible] and preservation in this region, whence they spread to other regions, in the lower part of which they are plentiful, but they grow less numerous as this tube ascends, till they are found wanting in the upper part of the cervical canal and are utterly absent in the cavity of the uterus and in the Fallopian tubes. The rectum and its contents are another source of microbes, which may easily infect broken surfaces of the vulva or vagina or be carried higher up by the examining finger. Unless they have been sterilized or disinfected just prior to use, instruments, napkins, towels, swabs and the like which are brought in contact with the parts concerned are also fertile sources of danger, while the danger of sheets, blankets, makintoshes and bed furniture infecting the hands or any instruments brought in contact with them may be avoided by surrounding the field of action with clean towels, but the most important sources of infection for a patient and yet the most difficult to render safe and clean are the hands of her doctor and nurse.

The genital canal in the puerperium offers specially favorable conditions for development of gonococci. Acute or sub-acute gonorrhœa is a severe complication of labor; for gonorrhœal infection may take take place in the female unobserved and lead her to think the discharge is not gonorrhœal, but one of the natural consequences of pregnancy. Or an apparently trivial or an unnoticeable infection by an old male gleet, not thoroughly cured, may burst forth into acute and severe activity after labor has taken place, while many women have old inflammatory foci, frequently purulent, in the neighbourhood of, or in, the uterus, tubes, ovaries, pelvic peritoneum, &c., making labor or abortion a peculiarly risky event, but fortunately conception is usually prevented by the disease. If such a woman unfortunately conceives, she is liable to a severe or even rapidly fatal illness, which only close study of the patient's medical history, aided by *post-mortem* examination, can distinguish from ordinary puerperal septicæmia. Though these gonorrhœal cases can be looked upon as autogenitic, much can be done for them by *timely* treatment before, during, and after labor.

III. *How do the germs affect the patient?*—(1) Idiosyncrasy, (2) duration of the labor from first pains to actual delivery, (3) the amount of blood lost, (4) and anything that tends to lower the strength and vitality of the patient predisposes her to the inroads of pathogenic germs whose multiple injurious effects may be briefed into two groups: (1) Those acting only on dead tissues and fluids begin their work by setting up unhealthy inflammatory processes locally through acting on (*a*) the surface of vaginal and cervical wounds and tears, (*b*) the dead layer of decidua and (*c*) the fluid contents of the uterus and vagina, to manufacture a poisonous chemical body which is absorbed directly or through the lymphatics into the circulation to poison the system. (2) Others acting on living tissues [illegible] the uterine and vaginal walls through and beyond [illegible] to set up [illegible] spreading in and [illegible] from the neighbouring [illegible] connective tissue of parametrium, and [illegible] [illegible] and ovarian [illegible] planes in the [illegible] [illegible] pelvic body.

Briefly the different affections [illegible] as classified as (1) inflammations in the uterine [illegible] itself or in their neighbourhood, (2) [illegible] (3) [illegible], (4) general. [illegible] that in [illegible] all the conditions as considered are [illegible] the patient still escapes without any harm, but in [illegible] a serious or minor affection, often so slight as [illegible] time, and not a few of these 'slight cases' drift into a condition of chronic disease making the patient's suffering more or less for months or years.

IV. *Preventive treatment*, which is the goal of medical science, has two equally important indications:—(1). Preserving the strength of the patient by the correct management of pregnancy and labor from beginning to end, so that her body and mind may be in as favorable a condition as will enable her to resist infection. This may be effected by (*a*) a suitable and nutritious diet that will keep her bowels properly regulated, (*b*) warm or comfortable and close fitting but not tight clothing, (*c*) gentle exercise all through pregnancy, (*d*) pleasant company to enliven her and keep her mind free from excitement or morbid emotions, and (*e*) strict exclusion from her company during pregnancy, but more particularly after labor has begun, of those pernicious know-all gossips who infest every lying-in room they can get admittance to; for nothing harms the parturient woman more than having to listen to the exaggerated and often lying tales of suffering and death in which these harpies revel. (2) To avoid infection of the patient by (*a*) keeping the passages, as far as possible, clear of putrescible matters such as blood-clots, discharges &c. and (*b*) avoiding introducing germs from without, during the necessary examinations and manipulations.

The care of the hands is of prime importance to the doctor and nurse, since either or both of them have to daily do with boils, acute abscesses, ulcers of all descriptions, carbuncles, putrefying cancers and innumerable other septic cases with which their hands must necessarily come more or less intimately into contact, and as the hands are the most fertile carriers of disease germs from without to the parturient woman, too much care cannot be taken in rendering the hands germ-free, as far as possible. For this purpose, the nails should be kept fairly short with the furrows under their free edge cleaned with a blunt knife and the ingrowth of skin over the lunules pushed back. When about to be used for obstetric or surgical purposes, the (*a*) hands, (*b*) forearms, and (*c*) the furrows under and round the nails are vigorously scrubbed *for three minutes* with a nail brush and hot water and soap. (*d*) Then each of these parts are vigorously rubbed with a wool-swab dipped in spirit, ether or turpentine, after which (*e*) they are scrubbed *for two minutes* with a brush and 1 in 20 carbolic solution or a 1 per mille corrosive solution, but not dried by wiping. If the hands become tender or irritable, soak them well with glycerine before each washing in soap and water. In protracted labor or specially,

dangerous cases, the whole process of washing the hands should be repeated two or three times at intervals of a few hours.

The routine use of vaginal douches probably does harm if administered during labor by washing away the abundant germicidal mucus which is then secreted, and leading to a dry, harsh condition of the walls of the passages, predisposing them to fissures and ruptures; but in the early part of the first stage of labor a douche is least likely to do harm; while it is of decided value, both in preventing infection of the patient during labor as well as guarding the infant against ophthalmia when coming down the genital canal of a mother who is suffering from pathological discharges, and more especially are douches necessary when the discharge is known to be gonorrhœal. At the conclusion of such labors as well as of those where repeated vaginal examinations or operative measures such as forceps, craniotomy, version, manual removal of placenta, &c. have had to be employed, an efficient douche should be given of one part of corrosive sublimate in 2000 parts of water as hot as the hand can possibly bear.

Abdominal versus vaginal examinations is pleaded by some persons. True that by the abdominal methods, which are more easy to learn than the vaginal, the position, relations and vitality of the child, the presentation, the character, duration and frequency of the pains and the external measurements of the pelvis can all be made out; but the condition of the cervix, os uteri and the soft parts of the parturient canal, and the relation to these of the bag of membranes and the presenting part can be revealed *only* by vaginal exploration, which should be limited as far as is consistent with gaining a sufficient knowledge of the progress of labor as repeated examinations, specially when prolonged, can only be harmful. But in any case before each and every examination care *must* be taken that the hands are carefully cleansed *by washing*.

Treatment before, during and after labor is divided into five portions.—(1) *Preliminary*. Throughout pregnancy the external organs should be scoured daily with soap and water. Sponges should not be used in pudendal ablutions, but in their stead pads of wool or tow that can be burnt. Women with pathological discharges should have warm vaginal douches daily for two to three weeks before labor. (2) *First stage of labor*—As soon as labor begins, the lower bowel should be evacuated by a two-pint enema of warm soap-suds. After which the vulva should be carefully cleared, the hair of the labia cut short and the whole region, including the mons veneris and inside of the thighs should be cleansed thoroughly by the processes described under "care of the hands" and the cleansed woman put into clean clothes, the underlinen being fresh from the laundry. (3) *Second stage*.—Make a vaginal examination when the membranes rupture, and if all be found normal on abdominal palpation, the duration of the interval between the pains and the maternal pulse between the pains are sufficient indices. The *timely* use of the forceps prevents exhaustion: but never hurry. Support the perineum with a *clean* napkin to prevent laceration as far as possible, when the head comes down at the end of this second stage carefully examine the perineum and *immediately* suture any tears with silk-worm gut so as to prevent puerperal infection or subsequent pelvic trouble. (4) In the third stage efforts are directed to secure good and complete contraction of the uterus after seeing that no portion of the placenta or membranes is left behind. Where numerous internal examinations or operative measures have been undertaken (not else) a warm antiseptic douche should be given. Finally, an abdominal binder is applied. (5) In the *puerperium* great care should be taken to twice daily cleanse the external organs by a sweb dipped in Condy's fluid, boracic acid, iodine or other antiseptic solution. The routine use of douches is unnecessary and sometimes harmful, and syringing should only be ordered in the presence of pathological germs. The best materials being iodine water (*i.e.*, Liniment Iodi ℥j, aquæ ℥i.) or dilute Condy's fluid; but in any case the medical attendant should himself administer the injections, unless he can absolutely rely on the care and efficiency of the nurse.

IS EVE STILL TO BLAME?

By James Lenox Brown.

Bombay.

Locke, in his valuable essay on the human understanding, has endeavoured to prove that there is no such thing as innate ideas, and that all our ideas are brought to us from without by our five senses.

That this is so there is no doubt.

We look upon the world as we see it, and form certain ideas of everything we see, as to whether it is round, square, flat, oblong, shapeless, hideous, pretty, dull, or bright. We hear a sound and form some conception as to whether it is melodious or dissonant, soft or harsh, low or loud. We perceive a smell and form at once some ideas as to its character, whether it is stifling or invigorating, irritating or soothing, inodorous or fragrant. We taste something and form at once an idea as to whether it is sweet or bitter, mild or acrid. We touch something and form some conception as to its hardness or softness, roughness or greasiness, dryness or moistness. All just as each one of us may separately imagine.

By such means all our ideas are brought to us. We begin to think, compare, judge, classify and act; we form our associations and begin to consider as to whether this man or that man is good or bad, or as to whether this action or that action is right or wrong; and, so, by our associations, by our thoughts, and by our actions, we either show ourselves to be men indeed or devils incarnate.

So far, so good. Certain reasons and certain principles, formed by our conception of things as they may appear to each one of us, control all our actions, but deep down within the depths of our inmost being, there might be just a spark of some sort of principle around which all other reasons and principles have gathered, which, like a spark below a heap of debris that has accumulated above it, may at any moment burst into flame and consume all.

In considering the extent to which all our ideas are brought to us from without through the media of our senses, we look upon man as he is from the day when first he breathes the life-giving properties of our atmosphere, to the day when he ceases to breathe for ever; and, in so doing, we omit to consider the impressions that are formed

upon his soft and plastic little mind while he is still in his pre-natal state—impressions [illegible] and lasting; that the accumulated teachings of years, if contrary to those impressions, would no more succeed in erasing them, than a mass of rubbish would in smothering the smouldering fire above which it is recklessly heaped.

There are two sides to this question which we must consider.

There are men, who behave like men, merely through the sheer force of circumstances. From their earliest infancy they are brought up amidst the best of surroundings, in their youth their kind fathers spare no pains in reproving them by chastisement, and, when these enter upon their manhood, their loving parents omit not to place them under the watchful care of honest and straight forward patrons—men of the world, who have seen the world, and are only too ready to seize every opportunity of keeping young men from going astray. Such young men then, moving amidst respectable surroundings, with their watchful patrons for ever secretly inquiring after their mode of life, would be deterred from misconducting themselves in any way by a consciousness of the overpowering sense of shame which they wisely foresee would seize them were they so to do; yet such men may yet be possessed of a principle of evil fiendish in the extreme—a principle of evil suppressed under the great weight of conventionality and suppressed so long as the eye of their patron is upon them, but allowed to assert itself when conventionality and patronage are both out of sight or suspended.

On the contrary, there are men who are not men in their ways, but bears—men bearing a strong relation to civilised savages. Brought up from their infancy amidst the worst of surroundings, knocked and buffeted about in their youth, alternately spanked and petted by their parents, and perhaps entirely spoilt, and at last turned out upon a heartless world to go and earn their own living, alone and unbefriended, and to learn the ways of men and things, with none but their own bewildered selves to guide them aright,—such men may yet have a sterling quality of goodness hidden far down in the depths of their rugged natures, which will more than equal in value the forcibly assumed merits of the former class—but goodness that has been smothered, smothered by the oppressive circumstances of their existence.

Why should this be so? Looking at the whole Christian world—God pardon the apparent narrow-mindedness—in the light of one large family, with God Almighty as its Father, why should so many of its prodigal sons repent of their evil ways and return to their Father's fold to be truer and better men for the future, and why should so many of their brothers who had remained at home and were constantly under the watchful care of their guardian parent, give expression to such fiendish hatred towards their spendthrift brothers on their return!

The answer is brief and simple. T'was but the inborn spirit,—the spirit that had been infused into each one of them, while they were being rocked in the cradle of the womb!

Mothers, take heed to what I say: Your children will be children indeed to you if from the time of the conception of each one of them to the time of its birth your thoughts remain [illegible] pure and holy. On you [illegible] depends the salvation of the sins of men.

That maternity's thoughts, during the period of pregnancy, have a great deal to do with the future child's cast of mind there can be no doubt. The greatest geniuses of this world have acquired their genius solely from their mothers, their fathers having nothing whatever to do with it. Fathers are like sowers, the product of whose sowings depend largely upon the various soils upon which they sow, whether rich or poor.

One notable instance that may have struck many of us, is to see a learned man with a stupid son as his inheritance.

To wit, EUGENE ARAM, one of whose sons was a driveling idiot. For this of course the mother is to be held responsible.

All this however concerns the effect that the general or normal disposition of the mother's mind may have upon that of her child's. What about those cases in which some peculiar trait of character most unaccountably manifests itself in one of the children, while the rest of the children show not the faintest traces of that trait? Take a notable example. The brothers and sisters of INGERSOLL, the well-known atheist, are all stalwart Christians, but INGERSOLL himself is utterly deficient in this ability. Why? The story runs that while INGERSOLL was still in his pre-natal state, his mother read with avidity the works of VOLTAIRE. The result was that when INGERSOLL came into the world, he grew up to be as philosophically atheistical as VOLTAIRE, and no amount of Christian education in his youth was sufficiently strong enough to overcome the atheistical convictions that were grafted upon his pliant little mind while he was still in his pre-natal state.

In one of his interesting essays, Sir RICHARD STEELE gives us an instance of a striking contrast that existed between the characters of two sons, the father of whom is supposed to have communicated the information to STEELE in a letter. Here are his words:—"If this winter should prove as severe as the last, I can tell you beforehand that I am likely to be a very miserable man, through the perverse temper of my eldest boy. When the frost was in its extremity, you must know that most of the black-birds, robins and finches of the parish, whose music has entertained me in the summer, took refuge under my roof. Upon this my care was to rise every morning before day to set open my windows for the reception of the cold and hungry whom at the same time I relieved with a very plentiful alms, by strewing corn and seeds upon the floors and shelves. But DICKY, without any regard to the laws of hospitality, considered the casements as so many traps, and used every bird as a prisoner at discretion. Never did tyrant exercise more various cruelties. Some of the poor creatures he chased to death about the room; others he drove into the jaws of a blood-thirsty cat; and even in his greatest acts of mercy either clipped the wings or singed the tails of his innocent captives. You will laugh when I tell you I sympathised with every bird in its misfortunes, but I believe you will think me in the right for bewailing the child's unlucky humour. On the other hand, I am extremely pleased to see his younger brother carry a universal benevolence towards everything that has life. When he was between four and five years old, I caught him weeping over a beautiful butterfly which he chanced

to [illegible] with [illegible] this [illegible] he has given his brother [illegible], which was his whole estate, to spare the life of the [illegible]."

What a contrast do we behold here. One son possessing the blood-thirsty nature of a [illegible], and the other the universal benevolence of a Christ. That the father was a humane man may be seen from his anxiety for the welfare of the birds, and that he was an indulgent parent from his not correcting the child for his acts of cruelty. The child's nature, then, must have been inherited from the mother. But, since the mother had begotten so generous a son as the younger, it is hardly likely that her nature could have been inherently cruel. It is probable, therefore that at the time she was bearing her eldest son, her mind must have been influenced by the perusal of some heart-rending acts of cruelty, committed by some demon in human form, which left its lasting stain upon the mind of her child.

Often do we meet with instances of brothers, each one of whom however shows some different tendency: one perhaps to be a swindler, another to be a vagrant, a third to be a soldier, a fourth to be a sailor, and so forth. This I take to be due, as I have been stating all along, to the particular kind of literature the mother may have indulged in while she was bearing each one of her sons; the first one manifesting a tendency to become a swindler merely because the mother had taken a deep interest during the time she was bearing him, in perusing the ways of some cunning rogue and so with the others.

Of course, for any impression to be made upon the mind of the infant in the womb, the mind of the mother must be quite taken up with the subject which she wishes to impress upon the mind of the infant which she bears, and she may confidently hope that her offspring will be born to be a great general, or a statesman, or an orator, or a physician, or an engineer or an electrician, or what not; all depending upon the subject in which she interests herself most.

Peculiar traits of character then, in individuals, are to be traced to the minds of their maternal parents, while those individuals were still in their pre-natal state. Hence so much of the innate righteousness or wickedness among us.

A child is born, but, while he was still in his pre-natal state, his mother was given to all sorts of excesses. Being a sensible woman in a way, she spares not the rod whenever she has occasion to correct her child for any wanton ways of his. He grows up, leaves his parents' home, steps into the world, and gives himself up to all sorts of excesses. What has the rod done? Nothing. It is only of secondary importance, and, when the impressions which the child derives in its pre-natal state from the mother be not in harmony with what the mother desires to fix upon its mind, it is worthless.

As the embryo develops into the fœtus, and the fœtus into the new-born babe, a similar evolutionary process must needs go on with its mind. Every impression therefore of the mother's will be communicated to the mind of the pre-natal infant, and it will be as difficult a task for a mother to make the mind of her child tend in a direction contrary to the one in which it is already tend-

[illegible] subordinate, take care of [illegible] a [illegible] for [illegible] with a Model [illegible] a [illegible] life, he is [illegible] taking [illegible] you [illegible] if you find that out of [illegible] children, four are fit stuff to hang upon a gallows, while the other two are fairly passable in the way they repay you for your kindness in bringing them safely to man's estate.

VALEDICTORY ADDRESS TO THE SUCCESSFUL STUDENTS OF THE MEDICAL COLLEGE, MADRAS.*

By Mr. R. Jagannathadu Razu, C.M.S.

In subordinate medical charge of the Egmore Female Dispensary and Instructor in Midwifery to the Native Pupils Government Maternity Hospital, Madras.

Mr. Chairman, Ladies, and Gentlemen,—It has been the pleasure of our Secretary, Dr. P. S. Chandra Sekar, that the honor of addressing you in the name of this Association and giving a few words of advice to the students who are just passing out of the College should devolve on me this time. In accepting the honor, I felt, as I do still, that the mantle should have fallen on better shoulders than mine. I think, and you will agree with me in thinking, that, amongst those present here, there are many who would have done greater justice to the task; but I candidly confess that I have done all in my power to make this paper acceptable to you; and if I don't come up to the mark, I beg of you to accept the will for the deed.

Gentlemen, I congratulate you on the success that has crowned your efforts, and wish you God-speed in your new sphere of life. You may justly be proud of the position that you have attained, but I shall be glad if anything that I say now would induce you to realize the importance and responsibilities appertaining to that position. It is now my pleasant duty, gentlemen, as an old member of the medical fraternity and as a member of this Association, to welcome you to our midst. My delight in doing so knows no bounds, and I receive you with open arms. There is, as you all know and feel, a natural tendency among all animate objects to welcome their kindred to their folds. It therefore needs no saying that such a tendency should and must predominate in man, the chief of all animate objects, and it is this that impels me this evening to give you all a hearty welcome to the noble profession, to which I have the pride and pleasure to belong.

I do not think that, on an occasion like this, it would be out of place for me to give you a few words of general advice.

The stage which you have attained to-day is just the turning point in your career. You are now required to gird yourselves up for the battle of life, the full meaning of which you will realize in years to come.

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* Read before the Madras Medical Association. Surgeon-Captain [illegible] Grant, M.B., I.M.S., in the chair.

"Gentlemen, your education is not finished. It is a mistake to suppose that one's education is complete when one leaves the College. It is your general education alone that is now complete, but self and practical education has to be gone through all life. Make it a point to know what you have learnt. Certain amount of knowledge you have acquired and your powers, both of reason and judgment have, to a certain extent, been developed and your mind trained. Your stock of knowledge must be gradually increased to a great extent, your mental faculties must be further improved and strengthened by constant exercise. The principles of morality that have been instilled into you must be so observed as to make your conduct in life useful and honorable.

To do all this, it will take a long time, but life is short. Your success will depend greatly upon how your time is spent. There are certain things whereon we have to spend time which are quite essential, such as exercise, recreation and rest. But to devote your precious time to frivolities and useless topics is sheer waste of time. Do not devote the greater part of your time to objects irrelevant to your calling in life.

Gentlemen, as you are now stepping into the world, it is of importance that you should have an idea of the principle objects you have to achieve in life. These are of two kinds, *viz.*, material and moral happiness to yourselves and material and moral happiness to others. To attain these, you must have knowledge and virtue which, I believe, you have to a certain extent acquired as certified by your lecturers and examiners. Increase them by diligent and well directed self-education and promote them to the best of your ability.

In doing so, do not over-stretch you capabilities, nor attempt to do anything that you are unable to do, for if you should, your professional career will be obstructed and no matter however able you are, failure and consequent disappointment will be your end.

One of the essential ingredients that go to form success in life is good manners. It is acquired by a little study and a little observation. Good manners are to life what oil is to machinery, as they tend materially to diminish the friction which attends the passage of life.

In the course of your life, you may come across good, bad and indifferent men. Take good care not to wound their feelings needlessly. Avoid harsh and unpleasant words, but always express yourselves truthfully, taking into consideration the excellence of the wholesome adage "Truth is great and must prevail."

Be independent. Independence does not consist in claiming equality with your superiors—official and social—nor in holding a tight rein over your inferiors. Obedience is not incompatible with independence. Cheerfully obey your superiors, albeit they owe their position to accident, to age, to interest, to wealth, nay, even to demerit. They are above you, and it will be your duty to recognize them accordingly and show them the deference due to their position. There is an old and true saying which you must always keep in mind, "He knows to command who knows to obey."

Whatever you do, do it with all your might. Never undertake to do a thing wherein you cannot hope to succeed. But once you set to it, try, try, and try again till you achieve the desired object. But, if, perchance, you fail, having done your duty to your utmost there will be no disgrace.

When after due enquiry and thought you have reached a useful conviction, avow it without fear or favor. By so doing, you will materially accelerate the progress and propagation of the truth, so essential a factor for public improvement. You can go a step further by acting upon them as far as practicable.

The profession.—Having given you some general advice, I shall next proceed to say a few words connected with the profession.

Gentlemen, you have become members of a noble profession—a profession which is second to none in point of dignity. To take up any profession and to be of use to one's fellow beings, it is essential that one should enjoy good health. "Health is the vital principle of bliss." An idler too must have sound health even to enjoy the pleasures of the world. The health of the people is in the hands of our profession, both in its curative and preventative branches. We are, in fact, the custodians of public health.

Man is endowed with five sentiments, and he rightly takes pride in assiduously cultivating them. Can you name another profession which sharpens your feelings and keeps you more in touch with misery? Be true to the principle "Do unto others as you would be done by." We do our duty by the bed-side of the patient, ministering to his wants and putting up with things which repel even his nearest relations. Nay, by cheerfully undertaking to work among people afflicted with plague, cholera and other infectious diseases, we willingly risk our lives at the altar of suffering humanity. All these points place the medical profession on a much higher level than the rest. Such, gentlemen, is the nature of the profession you have joined. If you honestly follow this walk of life and act up to the best traditions of the profession, rest assured that you will achieve as much success in the world as any member of any other profession. If the world has distinguished statesmen, eminent lawyers and renowned engineers and artists, it has also got its Lord LISTER and its Sir JAMES PAGET and only lately it has lost its Sir ANDREW CLARKE and Professor CHARCOT, who have held their own against others in the battle of life as regards the acquisition of honor, dignity and wealth. They are the embodiments of all that is good and great in our profession, and I exhort you to follow their example as far as possible.

Theory and practice.—Combine experience with knowledge. Knowledge is of two kinds: theoretical and practical. The former is what you learn from books; the latter is what you gain by experience. In all that you do, combine practice with theory. The latter devoid of the former is of no use. Many a man may know the theory of navigation, but very few make good mariners. You have hitherto acquired a theoretical knowledge; the practical side of it you have yet to learn. You may be acquainted with the use of every drug in the pharmacopœia and know the therapeutic action of the same, you may know the etiology and symptoms of every disease; but the first time you are taken to a sick-bed

and [illegible] the [illegible] from the [illegible] the feeble pulse and the incoherent delirium of the patient, the chances are a hundred-to-one that you are wrong. Success does not consist in superior theoretical knowledge, but in the intuitive skill with which that knowledge is adapted to new states of facts. This can only be acquired by patient study and realities of life. Book-reading, however wide, can give you only half your education; the remainder must be acquired by practice.

Qualities of a medical man.—A combination of practical and theoretical knowledge is one of the many qualifications required in a medical man. His situation is one of the most delicate and confidential. Perfect uprightness, moral courage, kindness of heart and demeanour, and above all, a readiness to sacrifice personal comfort are all required to be united with knowledge to make a genuine member of your profession. Cultivate patience, care, diligence, promptitude and punctuality. Want of patience will lead to wrong diagnosis, and want of care to danger to the sick person's life.

Duties and responsibilities of a medical man.—Added to all these qualifications, you have certain duties and responsibilities to perform. Unlike men of other professions, the duties and responsibilities of a medical man are unique in their character. Medical men have no Acts to bind them together. It is therefore all the more necessary that they should make a bond of honor. Gentlemen, in your calling, voluntary obligations take the place of legal. You will not have only to look to a distinguished name and for the momentary rewards that may follow upon such a reputation. Take, for instance, a case in which you, as medical adviser enter a sick chamber to examine the state of your patient; see that patient's mother watching you every moment, hanging breathless upon the words that are about to fall from your lips, see also the other members of the family partially ignorant perhaps of the condition of the patient, but looking upon you with silent awe! Now, after careful examination, observe the visitors' cheerful eye anticipating your mouth in the announcement that the patient is out of all danger; and watch the silent but expressive gratitude of the whole family, surely, the power thus to ease the over-strained heart is one of the most delightful possessions that a man can have. Can any compensation be richer and more pleasant than the gratitude of a mother?

"*A few words of advice to the Civil Pupils.*—Gentlemen belonging to the civil service, most of you may be posted to independent charge of dispensaries, when will devolve upon you the most important duty of popularising English medicine among ignorant villagers. You may become chairmen and members of village unions, taluks, district and municipal boards. In such capacities, you will be the pioneers of sanitation in remote rural areas, and I trust you will use the advantage of such positions in furthering the health of the people.

You may constantly have to deal with medico-legal cases, in connection with which you will have to appear before the courts when your general knowledge of all subjects will be put to a severe test. As you may have to deal with lawyers and the police, I would suggest that you may advantageously go through the Indian Penal Code. Above all, there may be many temptations in these cases [illegible] to lend your aid, but you must resist [illegible] all by keeping your hands clean.

Military pupils.—You, who are going to serve in the army, I cannot sufficiently impress upon you the necessity for observing strict discipline. However unreasonable the order of your superior may seem to you, first obey it and then represent your grievance. Remember the fate of the Assistant Surgeon who was lately degraded for refusing to do what he considered to be no part of his duty. Acquaint yourselves with all military rules. Since there is not much scope for practice in the army, make up your deficiency by always reading reported cases. Bear in mind that you have to work side by side with the soldiers, and it will be well if you try to acquire all soldierly virtues that you may serve your Queen and your country with honor and glory.

Ladies,—Last, though not least, to you I will say your work lies among Gosha women who are only too willing to welcome you in preference to men. It is with the object of providing medical aid to zenana women, that Lady Dufferin has founded a fund to encourage women to take up the medical profession. We, men, are quite willing to give you equal rights with us. The Madras Medical College levies no fees from you, I am glad that so many of you have availed yourselves of these opportunities, and trust that you will grace the profession in larger numbers in future.

General advice to all.—To all of you, I would say, uphold the dignity of your profession wherever you may chance to go or among whatever people you may happen to move. Any slight drawback or neglect evinced by you in the discharge of your duties will not only render you unhappy and unpopular, but also mar your progress in life and lower you in the estimation of the public at large. The most important part of your duties—and one beset with great responsibilities—is the examination of dead bodies and carcases, and granting of certificates in connection therewith and the giving of evidence before the magistrates and session courts. In this connection I must tell you, gentlemen, that the greatest caution and care should be taken in forming your opinion as to the nature and cause of death or injury, and such opinion must be fully based upon the *post-mortem* appearances as they present themselves before you. Since you will not be the eye-witnesses to the incidents under reference, you should not adhere to one opinion if two causes can bring about the same result from a medico-legal point of view. The greatest precaution is in this case absolutely necessary, as the life and death of many an innocent citizen may depend on the opinion you hazard.

Gentlemen, I think I am taxing your patience. One word more and I shall be done. In this my humble address, I have endeavoured, to give you an idea of your duties towards mankind. But there yet remains the pleasing duty of exhorting you all to love the Almighty Creator of the universe to whose benign and tender care we all owe our existence. Love of God must be the crowning motto of all your actions, and act as a charm to all that you say or do.

There now remains for me, gentlemen, to bid you all a hearty farewell. This I do with a fervent prayer

that you may discharge those duties which God in His omniscience has ordained for you, I bid you all go forth into the world to win your spurs in the battle of life.

In conclusion, I beg to thank you gentlemen, for the patient hearing you have accorded to me and the honor you have done me in asking me to read the address.

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NASAL POLYPI.*

By H. J. Dadysett, L.R.C.P., L.R.C.S. (Edin). L.F.P.S. (Glas.)
Fellow of the British Laryngological, Rhinological and Otological Society of London; Consulting Aural Surgeon to the Church-gate and Mandvi Medical and Surgical Halls, Bombay.

Nasal polypi are usually pale-yellowish colored, soft jelly-like, pear-shaped tumours of various sizes—from a pea to a plum in size—that grow in the nasal passages Sometimes they are of a translucent bluish-gray color and their shape may be altered by the pressure they exert on one another, or receive from the nasal wall. They weigh from 30 to 260 grains, and are less common in females than in males, whom they rarely affect before the age of 15 years, and most usually after the twentieth year of life. Their favorite seat is the mucous membrane lining the meatus semilunaris, and they usually take their origin from the middle or superior turbinals or the outer wall of the middle meatus, but they occasionally spring from the inferior turbinal, and there are instances where the polypus has grown from the septum nasi or has been found in accessory cavities, notably of the antrum.

They generally commence in one nostril and spread to the other, and patients who complain of unilateral obstruction at first are unconscious of the co-existence of polypus in the other nostril, until the obstruction they first noticed is removed.

Ætiology.—Though there is no *well-defined* theory of causation, it is generally held that chronic nasal catarrh is the chief source of nasal polypi which may be (*a*) benign, innocent or non malignant, or (*b*) malignant. To the former belong the mucus, fibromatous, cystomatous and papillomatous forms, while to the latter class are assigned scirrhus, carcinomata and sarcomata.

Dr. Bosworth of New York advances two theories: (1) Chronic catarrh waterlogs the mucous covering of the middle turbinal area and anterior stenosis and the suction action of hawking, sniffing or blowing the nose accounts for the pyriform growth of nasal polypi, (2) mucoid degeneration primarily occurs in the ethmoid cells, and as the secretions increase in amount, they are squeezed out in the polypoid form much as honey does when pressed out of a honeycomb. Professor Lennox Browne inclines to these beliefs, but adds that the pedunculation is rather due to the force of gravity than to hawking or blowing the nose; but Sir Morell Mackenzie, who does not however state his own views as to real causation, declines to accept catarrh as an ætiological factor, since polypi rarely occurs between infancy and puberty, when catarrh is common enough.

Professor [illegible], of [illegible], believes that ædema of the middle turbinal area diminishes the resistance of the mucous membrane at certain places where projections appear. The force of gravity aided by suction of the respiratory current makes the projected parts more œdematous and therefore larger and more and more dependent; but though he allows that chronic catarrh might do something towards it. Professor Gaye, of Amsterdam, thinks that irregular septum, habitual mouth breathing and climatic influences have a bearing on the ætiology of nasal polypi, which he has also known to have been originated by fœtid ozœna, rhinolitis and empyemata of the accessory cavities.

Dr. Leo, of Paris, finds that many of the growths are of spontaneous origin, but chronic catarrh and bone lesions are only occasional causes, while myxomatous degeneration of the folds of the mucosa is an ætiological factor in nasal polypi, which Professor Zuckerkandl of Vienna declares are not really neoplasms, but are inflammatory hypertrophies due to a chronic local inflammation since (1) they constantly hold round celled infiltrations without (2) a sharp line between polypi and normal tissue, and (3) tending to recur (4) are not congenital, though (5) polypoid hypertrophies may develop into polypi which (6) may also be caused by a rhinolith and (7) by inflammatory changes at the base.

Having personally known of a Parsee who with his sons and grandsons suffered from mucous polypi while the whole family were peculiarly susceptible to constant nasal catarrh, the writer is of opinion that hereditary proclivity should also be considered as an ætiological factor.

Symptoms, which are generally bilateral and vary with the size and location of the tumour, are partial or complete nasal stenosis, fulness and stuffy feeling in nostrils with difficulty in breathing, constant oozing of a thin watery discharge from nostrils, partial or complete loss of smell and hearing, sneezing sometimes, headache, sometime asthma and reflex cough, voice loses its tone or pitch; but with the removal of the obstruction all these reflex symptoms disappear.

Morbid Anatomy and Pathology.—The mucous polypi consist of a loose form of connective tissue whose meshes are filled with stellate cells and a mucus-yielding substance. Later on secondary changes of the cells occur and the areolar tissues become infiltrated with mucous fluids. In some cases the liquefaction of the myxomatous tissues leads to cystic degenerations, while in other cases veins and lymphatics are seen coursing over it, but which are generally strangulated at the peduncle; Hence the excessive hæmorrhages and the tendency to recurrence when peduncular attachments have not been completely obliterated.

Treatment.—Astringents, escharotics and even tapping afford but temporary relief, and the best method is extirpation of the growths by knife, curette and electric cautery, for which the way may be paved by use of albolene cocaine oil spray. Particular care being taken to prevent recurrence by completely removing the peduncle and cauterising the socket or point of origin with chromic acid or the galvanic cautery.

* Read before the Grant College Medical Society and sent by the author for publication in the *Indian Medical Record*.

A MIRROR OF PRACTICE.

CONCUSSION AND COMPRESSION OF THE BRAIN: HEMIPLEGIA: REMOVAL OF THE CAUSE OF COMPRESSION: RECOVERY.

By RAM LALL SIRCAR, C.M.S.

Camp Lone Line, Anglo-Chinese Boundary Commission.

KANYA SINGH, a Hindoo male, aged about 28 years, was admitted into the Civil Hospital of Bhamo on the 25th December 1894, for lacerated and incised wounds on the head.

The patient was a subordinate jail warder in the Bhamo Jail. His wounds were the result of an outbreak among the prisoners; the man, who was on duty at the time being struck most unmercifully on the head with a mammoty (an iron tool used for digging earth). On my arrival the patient was semi-conscious and bleeding profusely from the head. The wounds were bandaged up hastily and the man removed to the hospital.

The wounds were as follow :—

1. Lacerated wound on the vertex of head 1½ inch long, ½ inch broad, and extending down to the bone (not fractured).

2. ½ inch behind the above. (*a*) A lacerated wound 1½ inch long, ¼ inch broad, bone fractured. (*b*) A lacerated wound joining above to the left 1 inch long, ½ inch broad, and down to the bone (not fractured).

3. Lacerated wound on the vertex of head, left side (*a*) 1½ inch long, ½ inch broad, bone exposed but not fractured.

4. One lacerated wound on the back of head (*a*) 1½ inch long, ½ inch broad, bone exposed but not fractured. (*b*) Joining it on the right was a lacerated wound ½ inch long, and ½ inch broad.

5. One incised wound at the outer angle of right eye, ½ inch long, ½ inch broad, and ½ inch deep.

The wounds were cleansed and dressed antiseptically. For the first few days there were some slight febrile symptoms, but these disappeared. He progressed well and the patient's general health improved. At the end of the first week of January, he seemed quite well with the exception of one or two wounds which had not quite healed. On the 8th January, nausea and vomiting suddenly ensued, the patient complained of giddiness and of pain in the head and right extremities, he looked stupid and dull; temperature 99°F.

9th.—Hemiplegia of right upper and lower extremities with facial paralysis of the same side. Bowels constipated and urine retained. Unable to answer any question properly. Right pupil somewhat dilated, bowels opened by enema and bladder emptied by a catheter. Pot. Iodide and Pot. Bromide combined were given internally. Galvanism was applied to the paralysed limbs.

10th.—Patient in a semi-conscious condition was carried to the operation table and a nominal dose of chloroform was administered. A crucial incision was made over wound No. 2 (*a*), and the fractured spot made visible. A very small piece of bone, about ½ inch long and ½ inch broad, was found pressing on the brain through the fissure caused by the fracture. This piece of bone was removed by a fine pair of forceps. The wound was closed by bringing the edges of the flaps together and dressed with lint soaked in carbolic lotion 1 in 40. No suture was applied.

11th and 12th.—No fever, doing well, bowels opened and urine passed by catheter.

13th.—Temperature normal, feels giddy, urine passed voluntarily.

14th.—Patient semi-conscious. Temperature morning and evening 95°F.

18th.—All wounds except No. 2 (*a*) have healed.

22nd.—He can lift his forearm and leg freely, but foot is swollen and painful, abscess forming on the palmar aspect. Temperature 6 A.M. 98° and 6 P.M. 100·4°F.

23rd.—Abscess deep-seated; about an ounce of pus evacuated by incision, paralysed limbs can flex and extend at will, slight pain in head. Temperature 6 A.M. 98°F. and 6 P.M. 101.4°F.

24th.—Temperature morning 99°F. Pain in foot less, evening temperature 100.4°F.

25th.—Pain in the sole of foot. Incision made near the big toe and a little pus removed. Temperature 6 P.M. 101.4.

26th.—Progressing favorably. Temperature normal.

4th & 5th Feb.—Doing well, wound of head healing rapidly. Abscess of foot nearly well, no pain.

18th Feb.—Abscess of foot well, but complains of pain in the foot.

Patient was discharged completely cured at the end of the first week of March, 1895.

I have to thank DR. J. DOLBY, the Civil Surgeon, who very efficiently performed the operation, and under whom I attended the case.

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A TYPICAL CASE OF INFANTILE CONVULSIONS.

By ASSISTANT SURGEON M. A. CURRY, D.G.M.C.

Nusseerabad.

On the 11th of December 1897, I was suddenly summoned to see a private case in the bazaar. On my arrival at the house at 9 A.M. I found the patient was a Parsee child of about two months old. The father being a rather intelligent man, I elicited the following information on inquiry.

It appeared that he had previously lost three children varying between the ages of two and three months from convulsions, which were treated by practitioners in Bombay, but all died in from two to twenty-four hours. This made him very anxious about this child.

On examination, I found the infant was fairly developed was suffering from convulsions which were more or less general in character.

The symptoms of an attack were the following :—

Carpo-pedal twitchings, the legs were drawn up to its belly, pupils dilated, the head hot and the fontanelle prominent, pulse quick and small, the abdomen puffed, vomiting and slight feverishness. This was the first paroxysm I saw and lasted about two minutes. The child was being weaned as the mother had hardly any milk in her breasts. On inquiry regarding the child's nourishment I learnt it was being fed on equal parts of tea and milk. The bowels were always very constipated.

[illegible] was made [illegible] at once [illegible] a hot bath with [illegible] and removed the child, as far as its head, the latter [illegible] minutes.

This was repeated every hour for the first three hours on the first day and then at longer intervals. It seemed to have an immediate beneficial effect on the convulsions. A purgative of Pulvis Rhei Co. and Calomel was given, and a mixture of syrupus Chloral Hydras, Potassii Bromidum, Spiritus Chloroformi and Aqua Camphoræ every half hour. It was kept on milk mixed with equal parts of water, cold water mixed with Eau-de-Cologne was kept constantly applied to the head. The convulsions gradually diminished in their severity and frequency with this treatment on the first day.

On the second day I discontinued the hot baths and repeated the other treatment. Another purgative was administered as the bowels were very obstinate. The mixture was continued every second hour.

On the evening of the third day the convulsions ceased. I then stopped all the treatment on the fourth day and ordered a few drops of brandy to be given with milk. The infant improved rapidly, and is now thriving very well.

Remarks.—I may add a few words of interest with reference to such cases.

In some cases of convulsions it is often very difficult to discover the cause which it is always very important to know before attempting any particular line of treatment, and as the mortality from this disease is generally very high, more attention should be paid to this fact. In this case there was undoubtedly cerebral congestion present, but the ultimate cause of the congestion was difficult to account for I am of opinion that rickets in many cases account for convulsions, though there were no evident signs whatever present in this case, and I fully believe that the symptoms were latent. Hereditary rickets apparently derived from the mother's side, aided by improper food and bad ventilation, were the only probable causes.

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CASE OF ACUTE ANTERIOR POLIOMYELITIS.

By V. Dinshaw, G.H.M.S.

Medical Officer, Chincholi.

The patient, a male child aged one year and 6 months, was brought to me for treatment with the following history :—

About a week before the patient came under my notice, he had suffered from occasional attacks of vomiting, commencing on his rising in the morning and continuing intermittently throughout the day. High fever for a couple days. The mother then first observed that the child was unable to move his limbs by himself, and when propped up, could not keep his head steady

Present condition.—Use of the upper extremities entirely lost and movement of lower extremities slightly impaired, the head could not be kept steady, it was continually falling to one side or the other. Cutaneous sensibility not impaired. No tendency to inflammation of the urinary organs, no facial paralysis, no ptosis or eruptions anywhere on the body.

Treatment.—Quinine with Liqr. Arsenicalis was given in mili doses four times a day, and the limbs and spine were rubbed with camphor liniment twice a day. On the third day there was a slight improvement in the movements of the legs, and Tincture Ergot (mlv) was added to the mixture The patient now steadily improved and on the 7th day could sit up of his own accord and was able to keep his head erect. I now lost sight of the patient for about three months, and when I saw him again, the movements in the upper extremity were entirely restored, the head perfectly steady, but he was quite unable to stand, and when supported and made to walk, the left leg hung quite loose and was dragged along. The muscles of the left calf and thigh were flabby and the limb was cold to the touch (reduced) greatly emaciated.

Remarks.—The sudden onset after the previous slight illness and fever, the absence of, tenderness or any tendency to inflammation of the urinary organs and the want of uniformity in the paralysis of the upper and lower extremities led me to diagnose acute anterior Poliomyelitis, and this is confirmed by the condition that now exists after three months. I am, however, sorry I had not the means to test the electrical reaction of the muscles at the time of admission, during the progress and after recovery. The points worthy of remark are :—

(1) The loose condition of the head.

(2) Rapid improvement.

(3) The parts which were most involved recovered completely (*i.e.*, the upper extremities and the head), while the limb which was at first least affected, became paralysed later on.

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AN UNUSUAL CASE OF PENETRATING WOUND OF THE ABDOMEN.*

Under the care of Surgeon-Captain Dunn, I.M.S.,

General Hospital, Rangoon.

The following very remarkable case demonstrates the small amount of shock which may follow the infliction of serious injury to the intestine. Death resulted obviously from the internal hemorrhage and not from the wound of the bowel, for the patient lived only twelve hours, and this was much too short a time for any extravasation of the intestinal contents to have led to this result. It is difficult to see how the severity of the case could have been recognised immediately after the infliction of the injury.

A healthy, well-nourished native of Burma, aged about thirty years, was admitted at 8 30 A.M. on 1st March 1897, to the General Hospital, Rangoon. While squatting in Eastern fashion in a corner of his house with his back to the wall someone outside the house stabbed him in the buttock through the thin bamboo matting of the wall He did not apparently attach much importance to his wound. On examination a transverse wound one and a half inches long at the level of the lower end of the sacrum and just to the right of the middle line was found. A probe passed in about one inch and impinged upon bone. The rectum was examined and no injury was detected. The pulse was good ; the patient complained of little pain and there were no symptoms of shock. At 7-30 P.M. Surgeon-Captain Dunn was called to see the patient and found him moribund. He was almost pulseless ; his abdomen was distended and there were signs of much fluid within it. He died very shortly afterwards.

Necropsy.—At the *post mortem* examination the track of the wound was found to pass between the sacrum and the coccyx. The floor of the pelvis to the right of the rectum was perforated. A coil of small intestine about midway between the stomach and great intestine hanging in the recto-vesical pouch was penetrated. The abdomen contained a great quantity of blood, the source of which was not demonstrated, but was probably the right internal iliac vein or one of its large tributaries. The dissection was performed by one of the hospital attendants in the presence of Surgeon-Captain Dunn, but his skill was not sufficient to demonstrate this point. Having other surgical cases to attend to, Surgeon-Captain Dunn was unwilling to perform the dissection himself. All the other organs were healthy and uninjured.

Remarks by Surgeon-Captain Dunn.—The above case seems to be worthy of note as what appeared to be an injury of no great severity was in reality very serious, and that the real extent of the wound was not manifest at a time when successful operative measures might have been adopted.

*Reproduced from the *Lancet* by request.

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THE SERUM DIAGNOSIS OF TYPHOID FEVER AND THE RESULTS OBTAINED FROM IT.

The blood or serum of patients suffering from typhoid fever, when mixed with living typhoid bacilli in solution, has the power of arresting their movements, and of collecting them into groups or clumps; this is called the agglutinative power or reaction.

It is also known in general as Pfeiffer's reaction, and was demonstrated by him and others before Widal's name was connected with it.

In general, the serum of an animal suffering from a specific infection has the power of agglutinating, or clubbing, the specific bacillus of that infection.

This agglutinative serum-reaction appears to be of wide, although not universal application, and has been demonstrated for typhoid, cholera, tetanus, Malta fever, glanders, and other infections.

To Widal belongs the credit of applying this general law to differential diagnosis.

In applying the serum-reaction test a considerable number of precautions have to be taken in order to get reliable results. It will be our endeavour in the following columns to make these clear, and to give a brief account of some of the results already obtained and published.

Method of Taking Material for Testing.

Either pure serum, blood, or blood serum, can be employed.

Serum may be obtained from a fly blister, and gives accurate results.

Dried blood, as recommended by Wyatt Johnston, has however many advantages, more especially where the specimen has to be sent to a distance.

A drop of blood is taken from the carefully cleansed finger, or the lobe of the ear, placed on a glass slide and allowed to dry, in this state it can be sent off, and preserves its properties for weeks or even months.

No special precautions are necessary for keeping it sterilised during transport.

Typhoid Culture and Media.

For the test fresh typhoid cultures must be used not more than twenty-four hours old, if possible.

If care is not taken in the preparation of the cultures, a dangerous source of error crops in, in the form of pseudo-reactions; this results from the fact that some typhoid cultures have a tendency to "club" spontaneously, and others on the addition of any non-typhoid blood or serum.

Wyatt Johnston and McTaggert state that a safe cultivating medium to use is Bouillon *slightly acid* which just reacts on litmus, and requires 3·5 per cent. normal alkali to restore the tint to Phenol Phthalein. Delepine, recommends a neutral bouillon.

The former observers consider that the important factor is the nature of the *growth*, not the reaction of the bouillon, and state that they can get as good results with a bouillon of considerable alkalinity; temperature and other conditions may have some influence.

Mode of Applying the Test.

Dilution of the Blood or Serum.—A second source of error has here to be guarded against.

It has been found that normal and non-typhoid blood and serum frequently possess distinct agglutinative properties, but they are small compared with blood and serum specifically infected, and the fallacy can be avoided by diluting the material used for the test.

The degree of dilution is of considerable importance. Widal suggested one of blood to nine of water, or 1 in 10; it has however been found that non-typhoid blood and serum, even when diluted to this extent, will sometimes agglutinate the bacilli, so that most observers are now in favor of a higher degree of dilution, say 1 in 40 or 1 in 50, and it is believed that non-typhoid blood or serum, when diluted to this extent, will not give the characteristic reaction.

The degree of dilution at which typhoid blood or serum will sometimes agglutinate the bacilli is enormous, 1 in 12,000 according to Widal. Frankel found the average to lie between 1 in 100 and 1 in 200.

It follows that the higher the degree of dilution with which the agglutinative serum-reaction is obtained, the more positive the diagnosis, but for all ordinary purposes a dilution of 1 in 40 is considered to be sufficiently accurate.

Method of Diluting and Mixing.

Supposing dried blood is used and the degree of dilution required is 1 in 10, four drops of distilled water are added to the blood, and they are mixed together, to this five drops of bouillon culture are added and the result observed in a hanging drop preparation under an immersion lens. A control experiment should always be done at the same time.

Wyatt Johnston and McTaggert have adapted this method to quantitative work by taking the blood, water and bouillon with a copper loop of the same size; in this way each material is accurately measured.

The amount of bouillon added should be about equal to the amount of blood and water, or serum used.

Wright has described an ingenious method by which the test can be applied without the aid of a microscope; for his method certain appliances, glass capillary and sedimentation tubes are required, which though easy of construction in a laboratory, under certain circumstances present difficulties.

They are figured and described in detail in the *British Medical Journal*, 5th February 1898; the method is very simple in application if the tubes or the means of constructing them are at hand.

Time Limit for the Test.

Another important point is the time that should be allowed for the working of the test, as late agglutinations are not trustworthy.

The time differs according to the degree of dilution, for a dilution of 1 in 10—15 minutes is held to be suffi-

eight, while two hours should be allowed for a dilution of 1 in 50.

PERIOD IN THE DISEASE, AT WHICH THE REACTION IS PRESENT.

It may be considered to be one of the drawbacks to this method of diagnosis that the reaction does not, as a rule, appear before the seventh day, while it is during the first week that it would certainly be most useful, it increases in intensity as the disease progresses.

In some cases it has been noticed that it is not constant, but may be present one day and absent a few days later and then present again; for this reason every case should be tested several times.

The reaction sometimes persists a long time after recovery. In some cases for years, a fact that has to be borne in mind in making a diagnosis, for it is obvious that at the time the test is applied the patient may be suffering from some other disease; while a positive serum reaction may be due to an antecedant typhoid fever

RESULTS OBTAINED.

"WIDAL gives the following:—

The three latest extensive series of French statistics are those of M. M. GASSER, PAUL COURMONT, and BENSAUDE. The first relates to 112 cases of typhoid fever, the second to 257, the third to 61.

In no one of these patients did the reaction fail.

I have examined personally the serum of 177 typhoid patients, and have been unable to demonstrate the agglutinative reaction only in one single case."

Mr. R. C. CABOT, of Boston, collected statistics of 1,826 patients supposed to be suffering from typhoid fever, the test confirmed the diagnosis in 1,744 cases or 95·2 per cent.

Dr. GILMAN THOMPSON publishes statistics of 503 cases, 156 of which were undoubtedly typhoid, collected from five of the larger New York hospitals, and gives the following summary of results:—

1. Cases diagnosed clinically as typhoid fever in which the test was positive, 157.

2. Cases diagnosed clinically as undoubted typhoid fever in which the test failed completely, 6. One of these was tested on the seventh day and one on the eleventh. One was tested three times, and died of intestinal perforation the day following the last negative test.

3. Ratio of failures of the test in undoubted typhoid fever, 1·26, or nearly 4 per cent.

4. Cases diagnosed clinically as probably enteric fever, in which the test failed, 11. One of these subsequently developed inguinal adenitis.

5. If the failures in probable cases be added to those of undoubted cases of typhoid fever, the total ratio of failures of the test in typhoid fever rises to 1.9¼, or 10.8, nearly 11 per cent.

6. Cases decisively diagnosed as other than typhoid fever in which the test was positive, 20. In a few of these cases the test, though positive, was not considered strong enough to suggest a typical typhoid reaction.

7. Ratio of these misleading cases as compared with the genuine ones, 1.8 (nearly), or approximately 12 per cent. The diagnosis of some of these 20 cases was as follows:—Carcinoma of pylorus, meningitis (variety ?), nephritis and uræmic coma (reaction excellent), appendicitis with perforation (reaction excellent), chronic endocarditis (examined three times), pneumonia (examined several times, failed after eighth day), endometritis (moderate fever for ten days, which subsided after curetting), suppurative subdeltoid bursitis (acute bronchitis), pleurisy with effusion (serum, 1 to 10), diarrhœa (blood, 1 to 10), acute endocarditis (blood 1 to 10, feeble reaction), malarial fever (serum, 1 to 10), malarial fever (serum, 1 to 10), malarial fever (blood 1 to 10, reaction moderate on sixth day, absent on eighth day), acute articular rheumatism, general miliary tuberculosis.

His conclusions are:—The WIDAL test is unquestionably ingenious, and it constitutes a most instructive and suggestive bacteriological demonstration; but is it more than this—is it of genuine practical diagnostic value to the clinician? The great majority—fully 75 or 80 per cent.—of cases of typhoid fever need no confirmatory test beyond the plain history and symptoms, and the remainder in which such a test, if accurate and exclusive, would be invaluable are chiefly: (1) Cases of enteric fever seen very early in the course of the disease, principally in private practice; (2) cases of obscure sepsis; (3) severe or protracted cases of malarial remittent fever; (4) certain cases of typhus fever and of acute miliary tuberculosis; (5) various atypical forms of enteric fever.

Dr. GILMAN THOMPSON is not the only observer who has reported positive agglutinative reaction in diseases other than typhoid fever.

LOUIS B. WILSON and F. F. WASHBROOK got a positive reaction in influenza, acute mania, puerperal mania, and poliomyelitis with paralysis of the lower extremities, in none of which could a history of previous typhoid fever be elicited.

PATELLA reports a positive reaction in a case of ulcerative endocarditis.

In spite of these objections, almost all observers are agreed as to the wonderful power and value of this method of serum diagnosis, and its ease of application is not its least credential.

The question we have to consider is how does it affect us in India.

It is notorious that the ravages of typhoid fever amongst European troops have attracted a great deal of attention, and caused much uneasiness, it is also the case that this disease appears to be on the increase.

Now from what has come to our ears, we are led to believe that in many of these cases there is a certain element of doubt, to say nothing more, and for many reasons we are led to believe that the diagnosis of typhoid fever presents difficulties in this country which are unknown in England.

If we are right in this opinion, it is evident that the introduction of the WIDAL method of diagnosis would be of incalculable value.

Again we have heard of typho-malarial fever, and we have frequently seen it remarked about cases of typhoid

fever that they have a malarial taint or complication, but we are not aware that both the plasmodium and the typhoid bacillus have ever been demonstrated in the same case.

If the plasmodium were found in a case that gave the WIDAL reaction, it would go far to place typho-malarial fever on a sound footing, and the bacillus could be demonstrated subsequently.

Another point upon which we would lay some emphasis is our present ignorance of the part that typhoid fever plays amongst the native population; here then is a wide field for fruitful research.

FENTON lately stated that he got a positive WIDAL reaction in 40 out of 15 apparently healthy natives, the assumption being that they had suffered from typhoid fever at some previous time.

We should very much like to see the WIDAL method put to the test in some of the native fevers where there is a high mortality, and where conditions of filth abound, as for instance in the now notorious fevers in the town of Madras.

REFORM IN INDIAN MEDICAL EDUCATION.

THE subject of Medical Reform—that is reform in medical education and examinations, has come prominently to the front in Great Britain.

Sir CHRISTOPHER JOHN NIXON, M.D., in his Presidential address to the Dublin branch of the British Medical Association, summed up in an admirable way the objects to be attained in the future and the means of attaining them.

"If I were permitted," he says, "to outline the direction in which reforms should be made, I would indicate them as follows: (1) A uniform standard of preliminary examination; (2) a uniform standard of professional examination; (3) a more efficient and more extended exercise of the disciplinary powers of the General Medical Council—these changes to be affected by amendments of the Medical Acts."

Such being the position which the leading medical men in the United Kingdom are gradually finding it necessary, both in their own interests and in the interests of the public to take up, it may be interesting to take a glance at the condition of medical education and examinations in the Indian Empire

In the first place we have no body comparable to the General Medical Council to supervise education and protect the public from the dealings of unqualified persons. In India everything is in the hands of the Government of the country.

How does the Government look after the interests of the public by upholding the standard of medical education?

As a question of practical importance, it seems to have been altogether lost sight of, so varied and widely divergent are the standards with which we are surrounded, while the number of new schools constantly arising and granting their own diplomas must strike dismay into the minds of any one interested in the future welfare of the medical profession in India

The uniform standard of professional examination, the one portal system so ardently hoped for by some English reformers, is by many considered as almost beyond the bounds of possibility, so vested and conflicting are the many vested interests in that country; but in India, where the State is all powerful and the vested interests few, the question presents no difficulty that cannot be easily overcome.

As time goes on, and the Empire advances in civilization, the existing universities and schools will become more powerful, and may confidently be expected to come into competition with one another. Such competition is bad and tends to deterioration, it is an evil influence, as Sir CHRISTOPHER NIXON says:—"To get rid of the evil influence of competition amongst the various examining bodies is the problem to be solved."

Well, at the present day it hardly exists in India, but that it will arise in the future, if not prevented, no one can doubt.

Unfortunately in this country, at the present day, the tendency is to lower and not to elevate the standard of medical education. The Government seems to accept anything in the shape of a doctor as good enough.

This is a question which demands the earnest attention of the universities; it is obviously one of the chief functions of a university to uphold and elevate the standard of education, and if it fails to do this, its influence and importance must become depreciated.

Now what is to be said of a university, that without protesting, permits private bodies to grant counterfeits of its degrees? What can we say, except that it has become a nonentity as far as its influence over education and even over its own rights is concerned.

Yet we have several bodies granting these hybrid diplomas, there is the V L. M. S. which stands for Vernacular Licentiate of Medicine and Surgery, L T.M. S. Licentiate of the Temple Medical School, what are these but imitations of the L. M. S. of the universities.

These titles are astonishing enough, but what strikes us with utter amazement, is to find the exact counterpart of the university degree granted under the auspices of the Dufferin Fund. How has it come to pass that this Fund grants a license in medicine and surgery?

The whole question must be raised as to the legality of these licences, under what authority are they given and what benefits do they confer?

Are the holders of them held to be qualified practitioners in the eyes of the law?

The criterion of qualification in Great Britain is *Registration*, under the Medical Acts of the United Kingdom the degree or diploma in itself is not sufficient to constitute a qualified practitioner, it only enables the holder to be registered. It is registration which confers the benefits accruing to qualification.

A person who is unregistered is unqualified before the law.

What is the criterion of qualification in India? Under what authority do these different schools, and even private bodies, grant licences to practice medicine and surgery, and who is responsible that the education given by all these bodies is up to the necessary standard? All these are matters which require elucidation, and it is to the interest of all concerned that they should be put on a proper footing.

[illegible] standard of preliminary education [illegible] not the same.

[illegible] the matriculation opens the way for [illegible] in Calcutta it is necessary in addition to the matriculation, to pass the First Arts, and in the Punjab University the Intermediate is required; from this we conclude that the standard of preliminary education is lower in Madras and Bombay than it is in Calcutta and Lahore, and it is obvious that if it were not for the greatness of the distances in this country, most of the students requiring medical qualifications would flock to the two former.

Again, there is no uniformity in the degrees they grant. Surely in these minor matters much might be gained by adopting the same *nomenclature*. At present the Calcutta University grants a License *in* Medicine and Surgery. Bachelor in Medicine and Doctor *in* Medicine. Madras University grants a License *in* Medicine and Surgery. Bachelor of Medicine and Master *in* Surgery, and Doctor *of* Medicine.

Bombay University grants the degree of Licentiate *of* Medicine and Surgery, and Doctor *of* Medicine.

To what end all these differences and minute distinctions?

Much reform is required in the education of Hospital Assistants; they should all be educated in English, in fact there should be an English test before they enter upon their medical studies; finally there should be one standard examination for all the Government schools that turn out these men, their course of study should be four years, and they should receive a definite qualification, say a Certificate in Medicine, Surgery and Midwifery. C. M. S. M.

Uniformity is also required in the Military Assistant Surgeon class. As present three colleges grant diplomas to these men and the diploma is different in each case. The Calcutta Medical College grants the D. M. C. C. Diplomate Medical College, Calcutta. The Grant Medical College, Bombay, grants D. G. M. C., and the Madras Medical College D. M. M. C. All these colleges might easily give the same title, say D. M. S. M. Diplomate in Medicine, Surgery and Midwifery.

The educational standard should be fixed at the University Entrance; the course of study should be raised to five years, and there should be a competitive examination.

It is, however, when we come to consider the mode of appointing the various professors in the different universities that we hit upon the most curious anomalies of all. The Government that makes these appointments apparently thinks that because a man holds a good qualification he is fit to "profess" in any subject, and doubtless many of those selected would, if given a fair chance; but few possess the necessary versatility to profess in Chemistry one month, in Pathology the next, and perhaps in Obstetrics the next.

Yet the exigencies of the service are so great and tenure of office so uncertain, that this is what is actually demanded. Such a system is worthy of one of Gilbert and Sullivan's operas, or of the Chinese, though perhaps we are wronging the Chinese in saying so.

[illegible] to the [illegible] of [illegible] should be [illegible], provided the right man [illegible].

These are questions which, if [illegible] does not recognise their importance, and [illegible] are too powerless or too careless to [illegible], engage the attention of the British General Medical Council through its Parliamentary representatives, [illegible] to recognise schools conducted in such [illegible] fashion.

THE LIFE AND TIMES OF THOMAS WAKLEY, FOUNDER OF THE LANCET.

When Wakley founded the *Lancet*, there were three medical journals published in London:—*The Medical and Physical Journal*, *the Medico-Chirurgical Review*, and *the London Medical Repository*.

The Editors of these journals took no pains to conceal their disapproval of Wakley's methods, they held him up as a bogey-man, and a terrible example. Wakley was not slow to retaliate, hence there was bitter rivalry and wordy warfare between them, which eventually led to two libel actions.

In the first Dr. Roderick Macleod, Editor of the *Medical and Physical Journal* was the plaintiff, and the action arose out of a difference of opinion as to the merits of "Wardrop's method" of distal ligature for the cure of aneurism.

Dr. Macleod was awarded £5 out of the £100 claimed.

In the second, Wakley was the plaintiff and Dr. James Johnson, Editor of the *Medico-Chirurgical Review*, the defendant; this action occurred in the third year of the *Lancet's* existence, and was the outcome of the abusive methods these Editors employed to one another.

In the libel complained of, Dr. Johnson alluded to Wakley as an "outcast of medical society, who had been accused of arson, convicted of libel, and cast in damages in a Court of Equity."

In the following sentence the old Argyle Street calumny was raked up.

"The threatened expulsion of Lucifer from the presence of the gods on high Olympus spread terror among the inhabitants of the lower regions; but happily they were spared a visit from this *firebrand*, or rather *fire factor*, as he is now generally denominated, who willingly, for once, made his exit from the postern gate."

The following disgraceful explanation of the term "Lucifer" was given in a foot-note.

"The common derivation of this word is wrong; it is not from lux and fero, but from ignis and facio. (*Vide* Secret Memoirs of the House of Argyll)."

Wakley was successful. After two minutes' consultation the jury found a verdict in his favor for £100 and costs.

In 1827 the *Medical Gazette* was started by Brodie, Abernethy and other hospital surgeons; its object being to oppose and, if possible, ruin the *Lancet*. The following passage from the preface referred to Wakley:—

"A few years ago, a set of literary plunderers broke in on the peace and quiet of our profession. Lecturers

who had spent their lives in collecting [illegible] and the produce suddenly vanished from their gaze, to delight the profit of others, with the additional mortification of finding what they had taken so much pains with, disfigured with bad English and ridiculous and mischievous blunders."

The *Lancet* was not behind hand. The outward resemblance of the new paper to the *Lancet* was great, while all the Editorial inspiration had been borrowed from WAKLEY

"Some despicable imitations of us have arisen," said WAKLEY, and *stunk*, and became extinguished ° ° one or two are still *emitting a little fetor*.

WAKLEY's attack upon the Royal College of Surgeons forms not only an important episode in his own career, but a memorable event in the history of the medical profession; by it his influence was tremendously increased, and he came to be looked upon as the champion of the rights of the general practitioners of England.

He first fell foul of the College on account of a bye-law passed in March 1824, making it compulsory for students to attend the lectures of certain hospital officials, including the Professors of Anatomy and Surgery in the Universities of Dublin, Edinburgh, Glasgow and Aberdeen. This increased the power, the authority, and the emoluments of the metropolitan surgeons and lecturers, and gave them a complete monopoly in the surgical education of the London students.

This bye-law would evidently bear very hard upon private schools like the Webb Street School conducted by the Graingers, exceedingly able anatomists, who had a reputation as instructors that entirely put in the shade that of the four members of the combined staff of the Borough Hospitals.

WAKLEY was largely educated at this school, so that we may assume that his sympathies were with it; moreover, these same hospital surgeons, in whose interest the bye-law was formulated, were the very men whom WAKLEY was showing up for insufficiency and corrupt practices

The official ring was thus arranged. The hospital surgeons appointed the lecturers to the medical schools—that is, they appointed themselves, their relations, and the gentlemen who had paid them large fees to become their apprentices.

In this contest WAKLEY received much assistance from JAMES WARDROP, one of the greatest surgeons of the day, who contributed a number of letters over the signature of "Brutus," calling attention to the various grievances the profession suffered at the hands of the college authorities.

The publication of these letters caused great excitement in the profession, and called forth many similar expressions of resentment from the practitioners throughout England, which showed that the dissatisfaction of the commonalty of the college with their rulers was very real and very widespread.

Seeing that he was so strongly supported, WAKLEY pledged himself to a definite course, namely, the procuring of measures of redress.

His first step was to propose that a general meeting of the profession should [illegible] of campaign.

This meeting was held on the [illegible] was the first public meeting [illegible] College of Surgeons of England.

Through WAKLEY's influence [illegible] Parliament for redress, and a committee [illegible] was appointed to prepare the petition. The Council of the College was asked to join in the application, but very naturally refused.

ABERNETHY was at that time the mouth-piece of the Council, and he presented to the members of the College the Council's refutation of the charges brought against it; the refutation however refuted nothing, but only added fresh insults to those which had already been accepted by the members for years.

One point of interest came out—that a large quantity of HUNTER's Mss. had been burned by Sir EVERARD HOME. These consisted of ten folio volumes. Nine on the anatomy of animals and one on vegetables; the reason given for this act of Vandalism was a promise made to HUNTER.

The petition took a year to prepare, and so luke-warm did everyone concerned become that it would never have been prepared at all had not WAKLEY with indomitable perseverance pressed it on. ROBERT PEEL having declined, it was presented to the "House" by MR. WARBURTON, on 20th June 1827.

The result was that the College was called upon to render an account of its stewardship, thus the members gained a victory, but it was a barren one; the document called for was laid on the table, no debate ensued, and nothing more was heard of it. This was a great disappointment to the reformers, but WAKLEY stuck to his self imposed task and continued to "peg-away."

———.o:———

THE FOURTEENTH MEETING OF THE COUNCIL OF THE INDIAN MEDICAL ASSOCIATION.

IN accordance with notices issued by command of the President, the 14th meeting of the Council of the Indian Medical Association was held at its Office, 150 Dharamtala Street, Calcutta, on Thursday, the 17th March 1898, at 6 P.M.

Present:—DR. LAL MADHAB MOOKERJEE, Rai Bahadur, (President in the Chair), DR. E. W. CHAMBERS, Vice-President; Drs. H W. JONES, K. G. SIRKAR, H. C. HODGKINS, JAMES FORSYTH and J. R. WALLACE.

Business:—(1). The notice calling the meeting having been read, the minutes of the last regular meeting of the Council was read and confirmed.

(2). The Secretary represented that in compliance with the instructions of the Government of India and the Government of Bengal, the Council was called upon to forward to the Military Department of the Government of India and the Chief Secretary to the Government of Bengal, a statement of the grievances of the local military services, in view to their early consideration by the Government. The following letters were approved of and

[illegible]

[illegible] Government of India,

Military Department.

Sir,—In compliance with the instructions of the Government of Bengal in its Letter No. 276, dated 18th January 1898, the Council of the Indian Medical Association begs respectfully to place before the Government of India the following suggestions for the amelioration of the grievances of Military Assistant Surgeons in regard to status, pay and allowances.

1. The abolition of the term "*subordinate*" from the designation of their department, which may be styled the Indian Medical Department.

2. The abolition of the lowest grade of Assistant Surgeon: so that Military Medical Cadets, on passing the qualifying examination from the Presidency Medical Colleges, shall receive the rank of second class Assistant Surgeon with a salary of Rs. 100.

3. That in view of this improvement in the department all candidates shall in future be expected to have passed the Matriculation or Entrance Examination of an Indian University or the High School Examination of the Government European Code, and further that the period of education in College be extended from four to five years.

4. That promotion in the Department be regulated by a tenure of five years' service in each grade.

5. That an enhanced pension of Rs. 250 be granted to Commissioned Assistant Surgeons.

6. That the term Senior Assistant Surgeon, as applied to Honorary Commissioned Officers, be abolished.

7. That the rate of travelling allowance be allowed to the various grades at a fixed rate of Rs. 2 per diem.

8. That Military Assistant Surgeons holding the appointment of Civil Surgeon be graded in the First Class travelling allowance list.

Earnestly soliciting that the Government of India will be graciously pleased to accord an early and favorable consideration to these suggestions.

I have the honor to be,
Sir,
Your most Obedient Servant,
JAMES R WALLACE, M.D., F.R.C.S.,
Secretary, Indian Medical Association

To the SECRETARY to the GOVERNMENT OF INDIA,
Military Department.

Sir,—In compliance with the instructions of the Government of Bengal in its Letter No 276, dated 18th January 1898, the Council of the Indian Medical Association begs respectfully to place before the Government of India, the following suggestions for the amelioration of the grievances of Military Hospital Assistants in regard to status, pay and allowances.

1. That they receive definite military rank as Subedar, their present status being very ill-defined.

2. That they receive the designation of Sub-Assistant Surgeon and the senior grades the title of Honorary Assistant Surgeon and honorary commissions as Subedar-Major.

3. That the graded salaries be increased as follows :—

	Rs.
Senior Hospital Assistant	120
1st Class " "	90
2nd " " "	60
3rd " " "	40

4. That improvement be made in the matter of medical charge allowance, foreign and active service allowance, travelling allowance, uniform allowance (or free uniform) and pension, as under each of these heads considerable hardship is experienced.

Earnestly soliciting that the Government of India will be

Your most [illegible]

JAMES R. WALLACE, M.D., F.R.C.S.,
Secretary, Indian Medical Association.

(Similar letters have also been sent to the Government of Bengal.)

(5). The Secretary read the following letter having reference to the prohibition of private medical practice to the Civil Surgeon of Mussoorie :—

No. [illegible] of 1898.

From the UNDER-SECRETARY to GOVERNMENT.
N. W. Provinces and Oudh

To the SECRETARY,
Indian Medical Association, Calcutta.
Dated Allahabad, 28th February 1898.

Sir,—I am directed to acknowledge the receipt of your letter, dated the 18th December 1897, in which, on behalf of the Council of the Indian Medical Association, you ask His Honor the Lieutenant-Governor and Chief Commissioner to prohibit the Civil Surgeon of Mussoorie from engaging in private medical practice, on the ground that this is prejudicial to the public interests and to the interests of the private medical practitioners resident in the station.

Medical Department

2. In reply I am to say that the Lieutenant-Governor has given due consideration to the representation made by the Association, but finds himself unable to grant the Association's request.

I have the honor to be,
Sir,
Your most obedient servant,
H. R. C. HAILEY,
Under-Secretary to Government,
For Secretary to Govt. N.-W. Provinces and Oudh.

After discussion on the above letter, it was resolved that before this matter be forwarded to the Secretary of State for India, the Secretary submit correspondence in connection with this matter to the Government of India for favorable consideration of the Council's representation to the N.-W. P. and Oudh Government.

(4). The Secretary read letters from the Governments of Bombay, Central Provinces, Assam and from the Director-General, Indian Medical Service, concerning the recent representations of the Council in regard to the grievances of the Local Medical Services

(5). The Secretary presented the applications of 32 new members for the Association, received since last meeting. They were all duly elected.

(6). The Secretary read a letter received from the Bengal Government relative to the Plague Commission

(7) The Secretary read an important letter from certain Civil Assistant Surgeons complaining of a new grievance that had been inflicted upon them by the recent orders of the N.-W. P. and Oudh Government, the practical effect of which is to deprive Civil Assistant Surgeons of their status as gazetted officers.

Resolved that application be instantly made to Government for a copy of the orders referred to, and that the serious consideration of the Council be given to the subject at the earliest possible date.

(8). The Secretary read a letter from Mr. J. F. FERNANDES, Medical Officer, Rajputana-Malwa Railway, soliciting the Council's support with reference to the much discussed question of a recognised State medical diploma of lower value than a university degree.

Resolved that the whole subject be considered at the next meeting of the Council.

With a vote of thanks to the chair the meeting was closed.

[illegible]

[illegible]SSION AND AUSCULTATORY [illegible]

Dr. Robert Maguire, in the [illegible], 10th February 1898, discusses [illegible] the above methods in diagnosis.

It is possible, according to [illegible] outline the heart accurately by palpation.

To practise the method it is well at first to press lightly and alternately with the first and second fingers of the right hand upon the part desired, using but a little more pressure than one would employ in testing the eyeball for glaucoma. If this be done, there will be found in various parts of the chest wall, ignoring the bony and cartilaginous prominences, many spots in which the resistances vary. After a little practice, too, it is unnecessary to use the alternate pressure of the fingers described, and it suffices to pass the fingers, pressing lightly, over the chest wall. Try in the former way the first and fourth interspaces of the left side in the parasternal line (one inch and a half outside the edge of the sternum), and the fourth space will be found to be the harder, from the presence of the heart beneath it.

It is astonishing, but nevertheless true, that differences of resistance can be felt through solid bone like the sternum. Test the resistances of the sternum opposite the first and the fourth intercostal spaces, and the resistance of the heart will be felt in the lower spot, though this requires a little care to detect.

Practised as described, palpation can define delicately and more accurately than percussion the areas of the heart, liver, and spleen. Again, the kidneys can only be defined by the usual methods of percussion, with difficulty and uncertainty, while by palpation the upper border of the left kidney can be felt at the back, a little inside the scapular line, at the level of the eleventh rib and its lower border about 2 or 2½ inches lower. The upper part of the right kidney lies in front of the liver, and therefore cannot be felt from behind, but its lower border can be defined to lie somewhat lower than that of the left kidney.

Auscultatory percussion cannot give the slightest clue to the size of the heart, as will be apparent when the conditions of its mechanism are understood. Place two books on the table with their edges touching, and listening with the stethoscope over one, tap with a finger over the other: a dull knock is heard. Tapping over the further book, and gradually approaching the nearer one, the same dull knock is heard until the nearer book is percussed, when a sharp click reaches the ear. This gives the *rationale* of the method, and on this point I think all other observers have been mistaken. It is not an ordinary percussion note which is heard, but the knock of direct contact, and the quality of the percussion sound is of no importance. In applying the method to physical examination, the stethoscope is to be placed over a part of an organ in direct contact with the body wall, the position of which is known, and percussion is applied over some distant part, gradually approaching the stethoscope, until the sharp click is heard. Then one knows that the stethoscope and the percussing finger are over the same organ, and by percussing in different directions the outline of the organ over which the stethoscope is placed is defined.

But there are certain limitations to this conclusion, and overlooking them has led to the errors to which I have alluded. Suppose that it be desired to define the outline of the stomach—say in a case of gastric dilatation. If the whole of the stomach be in contact with the abdominal wall, the [illegible]

[illegible] heart and percussion be practised [illegible] change of sound will be heard [illegible] reached upon the exposed portion of the heart, that portion of the heart which lies under the lung [illegible]. We define only the line of contact of exposed heart and neighbouring lung, or what is called the superficial cardiac dulness, which has as its only value the demonstration of a small amount of emphysema. But, according to the [illegible], of the abdomen, the method will define the exact outline of distended large intestine, a matter which may be of importance to the surgeon before operating for intestinal obstruction. The physician can by this method define the outlines of the various lobes of the lungs and the direction of their separating fissures.

MASSAGE IN TREATMENT OF RECENT FRACTURES.

Mr. W. H. Bennett, in the *Lancet*, claims many advantages for this method of treatment; the following is his description of the method. The details of the method used in my cases will be best understood by describing an ordinary straightforward case of fracture of both bones of the leg three or four inches above the ankle in which there is little or no difficulty in keeping the bones in fair position. Reduction of any displacement of the fragments having been accomplished, the limb is placed upon a backsplint reaching above the knee with a foot-piece to which the foot is fixed by bandage in the usual way, care being taken to include no more of the leg above the ankle than is absolutely necessary; a second bandage or piece of webbing fixes the limb to the splint just below or at the knee. As much as possible of the area of the fracture should be left exposed. Rubbing by a gentle, smoothing movement upwards from the ankle is now made by the flat of the hand grasping as much of the circumference of the limb as is possible. However tender the parts may at first seem no pain will be caused, but, on the contrary, a soothing effect is rapidly produced. Ten minutes of this rubbing is sufficient at the first application. If at the end of this time the patient is fairly comfortable, the toes are taken altogether between the operator's thumb and fingers and very gently extended upon the metatarsal bones two or three times. At the end of the "sitting" side splints or sandbags are used in addition to the back splint for the better steadying of the fracture. This proceeding is repeated daily, or oftener if practicable, for from four to seven days, the time occupied by each massage being gradually increased to twenty minutes or more (the side splints being removed before the commencement of each rubbing and afterwards replaced). At the end of this time if the fracture is in good condition and the fragments show no sign of altering their position, the bandages are removed from the foot and ankle, leaving the limb exposed and lying on the splint. The smooth rubbing already described is now applied over the foot, ankle, and leg for about ten minutes and then, without removing the limb from the splint, the operator gently flexes the ankle two or three times or more on the leg with one hand, whilst he steadies the fracture with the other, the bandages being [illegible] as before. This is repeated daily for [illegible] at each sitting is [illegible] pillow; the rubbing is [illegible]

[illegible] ... active movement ... [illegible]. The [illegible] movement of the ... [illegible] ... "the internal massage," resulting from the working of the tendons and muscles in immediate contact with the fracture itself. At the end of another week the union is usually firm enough to allow of all the manipulations of ordinary massage and the patient may be encouraged to move the ankle spontaneously as freely as possible, the fracture being fixed with some form of short splint. The complete massage should be continued until the union has fairly consolidated; the period necessarily varies in different cases, but in a simple uncomplicated case of fracture of both bones of the leg a month is the approximate time. For the first fortnight the patient is better confined to bed; after that he may lie on the sofa and generally be allowed to get about with crutches, in which case a moulded poroplastic or leather splint, made so that it can be easily removed for the massage sittings, may be desirable.

PUT IT IN WRITING.

Two cases which bring home forcibly to medical men, especially those holding public positions, the importance of attention to details, and the value of having everything in writing, have lately attracted some attention in the English medical journals.

The first is known as the "Darenth Asylum Case." In this case it appears that a female patient became pregnant and in the course of time died in her confinement, 30th November, 1897.

As the result of the inquiry, Dr. WHITE, the medical superintendent, was called upon by the managers to resign immediately.

The case against Dr. WHITE is as follows:—

(1). That having had no obstetrical experience since his student days, he was unwise to undertake the case.

(2). That although Dr. WHITE became aware of the pregnancy on 22nd July there was no entry in the case book till after death. There was a total absence of records.

(3). He made no writing report of the pregnancy to the Committee.

(4). No qualified nurse was obtained or recommended in writing by Dr. WHITE.

(5). No communication was made to the coroner.

(6). There was no *post-mortem*.

Of these six allegations, Nos. 2, 3 and 4 appear to be the important ones. But against the first that Dr. WHITE failed to communicate with the Committee in writing, it is shown that the Committee were aware of the facts; for in their report of 14th December 1897, they state that the Clerk to the Board and the Chairman of the Committee made minute inquiries into the facts, and a special meeting of the Committee thereon was held on 12th August 1897.

This fact would seem to exonerate Dr. WHITE. He had mentioned the matter privately to the Chairman of the Committee and the Committee had taken cognizance of it, and from that time the responsibility would appear to have passed from Dr. WHITE to them; and no doubt had Dr. WHITE made proper official reports that would have been the case.

The General Purposes Committee, who inquired into the matter, reported:—

"We consider that in failing to apprehend the gravity of the situation and in neglecting to make proper arrangements for the case, by securing experienced medical care and nursing attendance, and in omitting to report to this Board (The Asylums Board) the full contents of the letter of the [illegible] ... that there was [illegible] ... and an absence of the [illegible] ... have failed to discharge, as they ought, the duties entrusted to them."

As we have seen, however, the managers preferred to make a scapegoat of the medical superintendent, in fixing a proper share of blame on the Darenth [illegible].

Dr. WHITE has declined to resign, [illegible] we have not seen the last of this case, which [illegible] for medical protection.

The other case was one where the Medical Officer of Health for Rochdale seized a portion of a carcase of a cow as unfit for human food. In this case the owner of the carcase gave his assent, but the medical officer did not insist on having it in writing.

The result was that the owner changed his mind and having got sufficient evidence in favour of the meat, brought an action against the Rochdale Corporation and got a verdict for £50 damages.

Some nice legal points then cropped up. The Corporation pleaded that they were not responsible for their medical officer's action, as they were obliged by statute to appoint such medical officer. Mr. Justice BRUCE, however, decided against them and held them responsible because the medical officer had acted on regulations laid down by themselves, but had not adopted the statutory method of securing the destruction of the carcase in a magisterial decision, that is, he had not observed the details of procedure laid down by law, which details we believe are very frequently neglected.

The above decision against the Corporation appears to have been given, partly because that body retained the power to remove their health officer in a three months' notice and to determine his salary, and also that he had been appointed by the Corporation to carry out regulations they themselves had laid down. On such nice points do these decisions hinge.

On the other hand, if the Local Government Board had paid part of the health officer's salary, and if his appointment and dismissal had been in their hands, it is very probable that the health officer would have had to meet the responsibility himself.

This aspect of affairs may turn out to be a very serious one for medical officers of health.

As the Corporation have appealed against Mr. Justice BRUCE's decision, the matter is not yet at an end.

OLD RECORDS ABOUT PLAGUE IN INDIA.

SAYS the *British Medical Journal*:—"In the January number of the *Indian Magazine* Mr. ALEXANDER ROGERS points out that the epidemic of plague now raging in the Bombay Presidency bears a striking resemblance to one which occurred about 250 years ago at Agra and in the North-West. In illustration of this he quotes the following passages from the Emperor Jehangir's autobiography (referring to the thirteenth year of that monarch's reign, *circa* A. H., 1028):

"The daughter of the deceased ASAF KHAN, who is in the house of ABDULLAH KHAN, son of the KHAN-I-KHANAN, told me a strange and wonderful tale. I made particular inquiries into its truth, and write it on account of its strangeness. She said that one day in the courtyard of her house she saw a mouse falling and rising in a distracted state. It was running about in every direction after the manner of drunkards, and did not know where to go. She said to one of her female slaves: 'Take it up by the tail and throw it before the cat.' The cat, delighted, jumped up from its place, and seized it in its mouth, but immediately dropped it and showed aversion to it. By degrees an expression of grief

and pain showed itself in its form. The next day it was nearly dead, when it entered into her mind to give it a little treacle (tiryak-i-faruk). When its mouth was opened its palate and tongue appeared black. It passed three days in a state of misery, and on the fourth day came to its senses. After this the grain of the plague (dana or bubo) appeared in one of the female slaves, and from excess of temperature and increase of pain she had no rest. Her color became changed; it was yellowish, inclining to black, and the fever was high. The next day she was free of fever and died. Seven or eight people in the house died in the same way, and some were ill. On the day I went to the garden from that halting place those who were ill in the garden died, and in that place the bubo did not appear again. Briefly, in the space of eight or nine days seventeen people became travellers on the road to annihilation. She also said: 'Those on whom the boil appeared, if they asked another person for water to drink or bathe in, those also caught the infection, and at last it came to such a pass that through excessive suspicion no one would pass near them.'

A previous passage runs as follows:—At this time those who were loyal represented that the disease of the plague (Taun) was prevalent in the city of Agra, so that in a day 100 people, more or less, were dying of it. Under the armpits, or in the groin, or below the throat a lump comes, and they die. This is the third year that it has raged in the cold weather, and disappeared in the commencement of the hot season. It is a strange thing that in these three years the infection has spread to all the towns and villages in the neighbourhood of Agra, and there has been no trace of it in Fattehpur (Sikhri), and as far as for two and a half kos from Amanabad to Fattehpur. The people of that place have forsaken their own homes and gone to other villages."

RULES TO BE OBSERVED PRIOR TO THE PERFORMANCE OF MAJOR OPERATIONS.

SURGEON-MAJOR A. LEAHY, M.D., F.R.C.S. Eng, Surgeon-Superintendent, South Suburban Hospital, Calcutta, has the following rules in force in his hospital:—

A. *The Preparation of the Patient.*

1. Oil is to be administered overnight.
2. In all rectal, urethral and abdominal cases, an enema is to be given.
3. Emptiness of the bladder is to be secured.
4. The skin over the site of the operation should be thoroughly washed with soap and water and afterwards covered with a piece of dressing soaked in perchloride of mercury solution for 6 hours—strength 1 in 500.
5. In abdominal, rectal and urinary cases, all hair should be shaved off.
6. In ophthalmic operations, the rules already laid down should be observed.

B. *The Operation Room.*

1. All instruments should be placed in a tray and covered with carbolic acid lotion—strength 1 in 20.
2. A bowl containing perchloride of mercury lotion 1 in 500 should be kept ready for submersion of the hands.
3. All dressings should be kept in a separate tray.
4. A towel soaked in a 1 in 20 solution of carbolic acid should always be placed on the table for laying the instruments on.
5. The douche can should be filled with a solution of perchloride of mercury—strength 1 in 2000.
6. After each day's operations, the operation room is to be flushed, allowed to dry, and then kept closed.

C. *The Instruments.*

1. The Resident Assistant Surgeon will select all instruments likely to be required at any operation.
2. After use, all instruments are to be boiled.
3. No instruments, scissors, knives, needles, &c., are ever to be used by the dressers for cutting dressings or bandages, or for sewing them.

D. *Miscellaneous.*

1. A proper supply of chloroform is always to be at hand during an operation and the wool in the inhaler is to be changed after each administration.
2. A bottle of rum or brandy should be kept in the operation room.
3. A small bottle (½ oz.) of ether, with a hypodermic syringe is also to be kept ready.
4. Sponges are not to be used for operations other than of the abdominal variety.
5. All sponges after use are to be subjected to the details of cleansing, such as are in force in the Eden Hospital.
6. During an operation, the stretcher for the removal of the patient is to be kept outside the operation room in the verandah.
7. The preparation of all ligatures, drainage-tubes, dressings, bandages, tourniquets, cauteries and splints is to be in the hands of the Resident Assistant Surgeon.

THE TREATMENT OF INOPERABLE SARCOMA BY MEANS OF COLEY'S FLUID.

A PAPER on this subject by Dr. C. MANSELL MOULLIN appears in the *Lancet*.

COLEY'S fluid is a mixture of the products of the growth of the streptococcus of erysipelas and the bacillus prodigiosus sterilised by heat, and the rationale of the treatment depends on the long known fact, that not only malignant growths, but chronic ulcers of the skin, lupus nodules, syphilitic sores and other affections occasionally disappear rapidly after an attack of erysipelas.

Several observers have obtained good results by this method. In America opinion is divided, a committee of those surgeons appointed by the New York Surgical Society, pronounced as follows—(1) That the danger to the patient from this treatment is great; (2) moreover, that the alleged successes are so few and so doubtful in character that the most that can be fairly alleged for the treatment by toxins is that it may offer a very slight chance of amelioration; (3) that valuable time has often been lost in operable cases by postponing operation for the sake of giving the method of treatment a trial; and finally and most important, (4) that if the method is to be resorted to at all, it should be confined to the absolutely inoperable cases.

On this Dr. MOULLIN remarks "No one, so far as I am aware, has ever advocated or practised this method of treatment for cases which were suitable for operation. And with regard to this finding I would only remark that Dr. COLEY'S cases (to take his alone) have been thoroughly verified and authenticated, and that they are neither few nor doubtful. It is no small achievement to have saved the lives of nine patients who had been given up as hopeless and dying by every other surgeon who had seen them; and one single positive result is worth any amount of negations. With such conflicting evidence it is not an easy matter to form a definite opinion.

The following are some of Dr. MOULLIN'S conclusions:—

The disappearance of sarcomata is not due to inflammation, but to an intensely rapid form of fatty degeneration comparable only to that which affects the hepatic cells in acute

yellow atrophy of the liver. Inflammation and sloughing, when they do occur, are septic complications.

Degeneration and absorption may occur, whether the toxins are injected directly into the tumour or into some distant part of the body. In the former case, however, the effect is more rapid and the constitutional symptoms more severe.

The method is attended by a considerable degree of danger. It should therefore only be adopted in those cases for which there is no other remedy. The chief risk appears to be from collapse and pyæmia.

The toxins are of no use unless the cultures are taken from a virulent case of erysipelas or are made virulent by passing the streptococcus through rabbits.

The bacillus prodigiosus, in spite of theoretical objections, has the effect of immensely increasing the reaction.

The effect is most striking in the case of rapidly growing sarcomata.

THE GOVERNMENT CHEMICAL EXAMINER SHOULD NOT EDIT A MEDICAL JOURNAL.

In our last number we expressed our views strongly against the present Chemical Examiner to the Government of Bengal occupying, as he does, the position of paid Editor to a private medical paper, owned by a publishing firm in Calcutta. We explained that it was not in the fitness of things that an official who was constantly called upon to express his opinion in medico-legal matters in our courts of law, and was thus often brought into opposition in this way with other medical witnesses and experts, should under no consideration find himself compromised by his professional relations with his brethren or with the public, as the exponent or advocate of conflicting views and opinions such as the editor of a medical journal is constantly called upon to express. We reiterate that the position occupied by the Chemical Examiner to the Government of Bengal, as paid Editor of a private medical journal is as injudicious as it is illegal. Injudicious because of the prejudicial reasons we have already expressed, and illegal also for the same, and further because a servant of Government cannot engage his services to a private firm under a definite contract such as the Editorship of the *Indian Medical Gazette* implies. That we are right in continuing to protest against this curious anomaly we have strong official and legal opinion to prove, and we earnestly hope the Inspector General of Civil Hospitals, Bengal, and the Principal of the Calcutta Medical College will take steps to abolish this official scandal, ere public action is taken to demand it. In connection with this matter we recall the action of Her Majesty's Coroner of Calcutta, who as an Associate Editor of the *Indian Medical Record* some years ago, severed his association with this journal on the very plea for which we raise objection to the Chemical Examiner's employment on the staff of the *Indian Medical Gazette*. The following letter explains itself :—

To JAS. R. WALLACE, M.D.,
Editor and Proprietor of the *Indian Medical Record*.
Welsted House, 10 Kyd Street, Calcutta, 22nd March 1893.

Sir,—With reference to the understanding only very recently come to, that I should take up the position of an Associate Editor of your medical journal, I now find that official life, and my interest in medical journalism, are incompatible.

I am reluctantly compelled therefore to request that you will kindly remove my name from your journal as an Editor.

Wishing the *Indian Medical Record* the success it so worthily deserves.

Yours &c., E. W. CHAMBERS.

It is logical to assume that what a medical gentleman of Dr. CHAMBERS' age and experience felt to be his conscientious duty, will strike most straightforward honest-minded people, as being a very good estimate of what is correct and right.

UNION IN THE MEDICAL PROFESSION.

An eminent surgeon in London years ago complained that his *confrères* were like Ishmael, "whose hand was against every man, and every man's hand was against him."

The "battle of the clubs," a constant trending in the *British Medical Journal*, shows what a suicidal policy the profession has adopted, and how injurious competition without any restriction is.

As two notorious illustrations of the lack of *esprit de corps* amongst medical men we may cite the following :—

Dr. BENTOUL was elected a direct representative of the profession in the General Medical Council, but very soon resigned his seat, publishing his reasons for so doing, namely, that he received no support from his *confrères* in his efforts at reform, and he could not afford to go on spending so much time and money for them without result. Similarly, at the annual meeting of the British Medical Association in London in August 1896, Sir B. W. FOSTER, in a speech at a general meeting in Exeter Hall, upbraided the profession for neglecting to support him, saying that he had been three years a member of the late Liberal Government, but in all that time not a single medical man afforded him the slightest help in his efforts at sanitary reform. We can add our personal testimony. Some years ago, the College of Physicians of London published some regulations, to which some of the licentiates objected, and one of them proposed to establish a committee to protect their privileges. By a curious coincidence this complaint appeared almost simultaneously in this journal and the home papers, so we sent a marked copy to the gentleman who proposed to form the committee, promising to subscribe to his committee when started. In course of time he wrote to thank us for the paper, and to say that he regretted he could not accept our subscription, for except ourselves, no one else in the profession had taken the slightest notice of his suggestion. If the profession will not combine, it need not expect that either Government or the public will take any notice of its complaints. Readers of this journal may remember how the Madras Government persecuted Dr. KING some years ago, because he published his method of preserving vaccine in lanoline, without having obtained permission to do so from Government. The facts were sent by Dr. KING to this journal, which published them, and the *British Medical Journal* supported it in crying shame on the ignorant and tyrannical Government, so that Dr. KING was re-instated in his appointment. This success ought to encourage the members of the profession to support each other on all occasions, just as the lawyers and clergy support each other

THE *BRITISH MEDICAL JOURNAL* ON THE ANGLO-INDIAN QUESTION.

The *British Medical Journal* of 5th March 1898 says :—"This term denotes a large and various population in India. It embraces persons of pure British blood, the descendants of white parents, who for sundry reasons made India their permanent domicile, and a much larger number of persons of mixed parentage whose interests and hopes are bound up with India. This population numbers about a million, and is scattered throughout the Indian Empire, concentrated principally in the larger towns. It is a thoroughly loyal English-speaking population, and retains in great measure the physique and the habits of mind and disposition inherited from the race from which it has descended, tempered largely, perhaps to some extent deteriorated, by hybridity, climatic influences, and social degeneracies. Some of its members have attained success and position in commerce and official employ, and most of them have done useful work in Government and mercantile offices, and in occupa-

[illegible] great variety, [illegible] not a few in times of emergency have [illegible] help in a military capacity. These people [illegible] element in the Indian body politic [illegible] courage and strengthen. They are eager for [illegible] social elevation, and anxious to take a larger share in civil and military employment. Last year Dr. JAMES [illegible] WALLACE, a successful medical practitioner of Calcutta, while on a visit to this country, spent much of his time in urging on persons of influence the advantage of fostering and promoting this laudable ambition for better education and position. To this end he urged the formation of an Imperial Anglo-Indian Association in London, and the starting of an Anglo-Indian Patriotic Fund to defray necessary expenses connected therewith. On his return to India enthusiastic meetings of welcome were held in Bombay and Calcutta at which his efforts were [illegible] acknowledged and proposals unanimously accepted. The attitude of energy and self-help which these proceedings display is much to be commended; and we wish the Anglo-Indian all success in his competition with the European on the one hand and the native of India on the other."

PLAGUE REGULATIONS.

CONSIDERABLE modifications have been made in the Government plague measures in Bombay which are embodied in the following letter :—

No. 1994 of 1898, GENERAL DEPARTMENT.—Plague

Bombay Castle, 17th March, 1898

From the Hon'ble Mr. A. WINGATE, C.I.E., I.C.S., Secretary to Government, to the Chairman, Bombay Plague Committee.

Sir,—Pending the revised system of operations, which the Bombay Plague Committee will be asked to adopt on the lines generally indicated by His Excellency the Governor to the meeting of the Justices on the 15th instant, the Chairman is requested to issue stringent instructions to all the divisional and sub-divisional officers that there is to be no compulsory search in any house unless the fact is reasonably established that it is a plague-infected house.

1. No patient is to be removed to a plague hospital unless the case is undoubtedly a plague case and no medical certificate shall be accepted as evidence that the case is one of plague unless it is signed by a fully qualified medical officer.

2. That no plague case which a fully qualified medical officer may pronounce to be hopeless shall be removed to hospital without the consent of the relatives.

4. That no inmates of a house are to be removed without intimation being given to the head of the family.

5. That when any damage is caused by destruction of property (to diminish risk of infection) compensation must in the case of the poor be paid on the spot, and there should be no destruction of property when disinfection will suffice.

The system of compulsory house-to-house visitation is to be done away with, and the notification of disease is to be placed in the hands of native committees.

These changes have been made without any reference to the Plague Committee, and some curiosity is expressed as to what its future sphere of work will be.

DR. POORE ON ENTERIC FEVER.

IT is always a pleasure to come across a man who has the courage to shake himself free from the dominant opinion of the day, and with an open mind and untrammelled judgment strike out a path for himself. From such a one, there is always much to be learnt, and such a man we find in Dr. G. V. POORE, [illegible] independent opinion, whether [illegible] he [illegible]

[illegible] people living in [illegible] [illegible] many matters, both [illegible] or subjects for serious reflection.

We can only give one or two quotations from his opening address on the "Prevention of Enteric Fever" before the Royal Medical and Chirurgical Society.

"Public water supplies," he says, "must be regarded as causes of the epidemicity of enteric fever. They diffused the poison with a completeness which was absolute, and insured that it was 'laid on,' as it were, to our very populace." Water supplies should be arranged with as many independent sub-divisions as might be possible, and supplies from different sources should never be mingled.

"The great cause of the increase and wide epidemicity of enteric fever in recent years had been the water closet."

"Enteric excreta should never be mixed with water, because it was pre-eminently a water-borne disease."

"When enteric fever became suddenly epidemic, it was most often through contamination of the drinking water."

"Enteric stools in country places might quite safely be applied to the surface of well-tilled soil, they must not be mixed with antiseptics, and must not be buried deeply."

"Fæces could not be washed out of well-tilled humus by any amount of rain—in such a position fæces disappeared in a few weeks."

TUBERCULOUS MILK.

MR. SHERIDAN DELEPINE, M.B., B.Sc., in the *Lancet* says on the subject of tuberculosis, this not being a notifiable disease, there is no question of case diagnosis, our work is chiefly directed to the detection of tuberculous milk.

The microscopical method is of very little use for the detection of tuberculous milk, it is only when tubercle bacilli are very abundant that they can be discovered without considerable loss of time.

There can be no doubt therefore as to the superiority of the inoculation method when exact results are wanted, it is well known that when a guinea-pig is inoculated with even a few bacilli it invariably becomes tuberculous

The microscopical examination, however, is not without use, for in all the cases which were proved to be tuberculous by inoculation the milk was found to contain a large number of leucocytes and epithelial cells; this presence of cells was also recognised in milk coming from udders affected with non-tuberculous mammitis and therefore is not diagnostic of tuberculosis, but tuberculosis was never communicated in my experiments by milk poor in cells. This is a confirmation of the well-known fact that the milk of tuberculous cows does not, as a rule, become infectious when the udder is not tuberculous.

The testing of milk by inoculation is not only useful with regard to tuberculosis, for in a large proportion of cases milk which has been badly kept exhibits virulent properties in various degrees.

This virulence is due to other micro-organisms, which multiply rapidly, especially in summer, and which Mr. DELEPINE sees good reason to believe are an important cause of summer diarrhœa.

It is therefore most important in conducting any investigation on tuberculosis to inoculate as soon as possible after milking in order to prevent the mortality and lesions due to that microbe. Or else the milk must be kept in ice from the time of collection to that of examination.

THE SEQUEL TO THE DELHI POISONING CASE. A HARDSHIP ON CIVIL ASSISTANT SURGEONS.

In relation to the unfortunate death of Mr. MACLEAN through the mistake of a compounder, the Civil Medical Department of the Punjab Government has just issued a circular ordering that in future all prescriptions containing poisons are to be compounded by the Assistant Surgeon or Hospital Assistant, and not by the compounder.

Anything more marked for imbecility and utter impracticability than this order cannot well be imagined.

If compounders are unfit for their duties, it would be better to do away with the whole class at once, but it is the height of absurdity to keep them on, and yet throw the onus of their work upon other shoulders which this circular amounts to.

But why are they unfit to be trusted with the compounding of prescriptions containing poisons? The admission that they are unfit amounts to a grave slur equal to a scandal on the authorities who in the first place appointed them.

If there was ever the necessity for a compounder, the necessity still exists, and cannot be glossed over by adding the responsibility for his work to the many responsibilities which the Assistant Surgeon already has to bear.

The most disgraceful part of the whole affair is that the Government ever permitted men, so unsuited by education and training to occupy such posts as compounders; and herein lies the kernel of the matter. The Government to hide its own shortcomings tries to shift the responsibility to others. But the only course open is perfectly obvious, and in the interests of public safety and efficiency it must be forced upon the attention of Government. That course is the formation of a thoroughly trained and competent class of compounders.

WHO IS RESPONSIBLE FOR THE CHOICE OF THE ADMINISTRATION OF AN ANÆSTHETIC.

A DISCUSSION on this subject has occupied the columns of a lay paper at home.

A hospital surgeon of long standing and wide experience contends that it lies solely within the province of the surgeon in charge of the case, upon the ground that he, and he only, has the opportunity of studying the case, and so is the best qualified to sit in judgment upon the points at issue

On the other hand, a gentleman in private practice writes that at least as regards private practice, he considers the surgeon as the least competent, since the family doctor, he alleges, knows all about the patient, while the surgeon views him wholly from the stand point of his surgical malady.

In cases where special anæsthetists are called in, the problem is more complex. If competent medical men who devote themselves to the study of what is admittedly a large subject and one not free from special difficulty, and are found willing to practice solely in the capacity of anæsthetist, it becomes a grave question whether or not they should be regarded as mere experts in the methods of giving an anæsthetic and accepting no responsibility beyond that involved in the technique of their calling; or whether, on the other hand, they have a right to determine what anæsthetic is best in any given case. It is urged on behalf of the anæsthetists, that when an expert is called in to give the anæsthetic, with him should rest the onus of selecting an appropriate anæsthetic. In all cases of special doubt or difficulty a consultation between the administrator and the operator should enable the former to examine the patient, and ascertain the surgeon's views and wishes.

OFFICIAL INTEREST: MEDICAL AND NON-MEDICAL.

THE following theme may be familiar in its style to some of our readers:—

Though I speak with the languages of Hindustan and the Punjab, and have not Interest, I am become as he that hath not passed the Lower Standard.

Though I have the gift of writing, and understand all Government Orders, and though I have all tact, so that I could remove mountains, and I have not Interest, I am nothing.

Though I bestow all my energies upon my duties, though I have given my body to be shot at, if I have not Interest, it profiteth me nothing.

Interest helpeth ever, and is kind; Interest scrupeleth not; Interest hideth not itself, is not easily abashed, rejoiceth not in merit, but rejoiceth in family connections.

Interest never faileth; but whether there be War services, they shall fail; whether there be special qualifications they shall cease to be considered; whether there be knowledge of the languages, it shall be of no avail.

For we officiate for some, and do duty for others, but when he that hath Interest is come, then he that doeth duty shall be superseded

When I entered the service, I spoke as a griff, I understood as a griff, I thought as a griff; but when I came to know the power of Interest, I put away griffish ideas.

And now there abide Special Qualifications, War Services, and Interest, these three, but the greatest of these is Interest

THE VICEROY AND HIS DOCTOR.

TWO interesting announcements were made by the Viceroy in his speech at the annual meeting of the Lady Dufferin Fund yesterday. The first was in connection with his retirement, and was to the effect that he had represented to the Secretary of State the desirability, in the public interest, that whoever was selected to succeed him should take over charge at the commencement of the Calcutta season and not, as in his own case, at the end of January. Lord ELGIN added that he expected, therefore, to make over office early next December, and would probably be unable to take part in another annual meeting of the Dufferin Fund. The other announcement related to Brigade-Surgeon Lieutenant-Colonel FRANKLIN, to whom Lord ELGIN paid a warm tribute on account of his services to the Dufferin Fund, and added that, on the recommendation of the Government of India, the Queen had appointed Dr. FRANKLIN Honorary Surgeon to herself. News of the appointment arrived yesterday in a telegram from the Queen-Empress, and, as Lord ELGIN happily remarked, was one more proof of the interest taken by Her Majesty in the promotion of medical aid to the women of India.

PLAGUE IN BOMBAY

THE number of deaths from plague in Bombay for the week ending 8th March was 1,283; for the week ending 15th March 1,059; and for the week ending 18th March 1,247.

The Mofussil Statistics are as follows:—Poona, 4 cases and 10 deaths. In the districts—Kaira, 2 cases and 2 deaths; Surat, 126 cases and 97 deaths; Thana, 29 cases and 21 deaths Ahmednugger 8 cases and 6 deaths, Khandeish, 29 cases and 25 deaths; Nasik, 55 cases and 52 deaths; Poona, 28 cases and 28 deaths; Satara, 111 cases and 97 deaths, Sholapore, 80 cases and 23 deaths; Kolaba, 66 cases and 50 deaths; Ratnagiri, 29 cases and 16 deaths; Belgaum, 105 cases and 81 deaths; Dharwar, 5 cases and 5 deaths. Bijapore one case and one death. In Native

Territories—Baroda, 306 cases and [illegible] deaths; [illegible], 64 cases and 58 deaths; Kolhapore, 69 cases and 72 deaths; Cutch, 13 cases and 11 deaths; Rewa Kantha, one case and one death; Palanpore, 25 cases and 22 deaths; [illegible], 42 cases and 6 deaths, Jangira, one case and one death; Akalkot, 8 cases and 5 deaths Aundh, 17 cases and 13 deaths. Dr. LUSTIG's serum has not fulfilled its promise; 14 out of 24 cases treated having died at the Arthur Road Hospital, Bombay.

THE ARMY SERVICE EXAMINATIONS.

WE herewith print the lists of the successful candidates for commissions in Her Majesty's Army Medical Staff and Indian Medical Service:—

ARMY MEDICAL STAFF.

Names and order of merit.	Marks.	Names and order of merit.	Marks.
1. W. H. S. [illegible]	2776	12. R. J. Lebbin	2154
2. A. H. Walter	[illegible]	13. A. R. O'Flahertie	2148
3. G. S. [illegible]	2617	14. H. Herrick	2127
4. A. H. Weld	2604	15. C. W. Mainprise	2108
5. J. S. Gallie	2474	16. G. J. S. Archer	2089
6. G. B. Crisp	2439	17. R. S. H. Fuhr	2066
7. H. B. G. Walton	2324	18. H. O. Hall	2058
8. W. Jagger	[illegible]	19. F. J. C. Heffernan	1994
9. A. B. MacCarthy	2275	20. J. Cowan	1966
10. R. Selby	2196	21. E. P. Hewitt	1943
11. A. E. Thorp	2183		

INDIAN MEDICAL SERVICE.

	Marks.		Marks.
1. T. Hunter	3470	9. G. F. S. Genge	2904
2. W. R. Battye	3845	10. R. F. G. Tucker	2886
3. H. B. Meakin	3316	11. W. G. Liston	2876
4. G. Hutcheson	3157	12. F. S. C. Thompson	2805
5. R. W. Anthony	3064	13. H. J. R. Twigg	2770
6. G. H. Stewart	3046	14. C. W. McG. Orpen	2745
7. H. Boulton	2924	15. T. S. Novis	2721
8. J. W. Watson	2902		

THE EUROPEAN PLAGUE HOSPITAL

THE "*Times of India*" says:—The number of Europeans born in Europe who have been under treatment in the plague ward of St. George's Hospital between the 12th December 1897, and the 7th of March 1898, was 5 (all males), of whom 2 were cured, 2 remain under treatment, and one died. Of domiciled Europeans 6 were admitted (all males), of whom 3 were cured, 2 died, and one remains under treatment. In the same period 21 Eurasians were admitted (14 males and 7 females), of whom 3 males and 3 females were cured, 7 males and 2 females died, and 4 males and 2 females remain under treatment. Under the heading of European Jews there is one entry, that of a woman, who died. Of Goanese and native Christians 7 were admitted, 6 of whom died.

The percentages of mortality to admissions were, Europeans born in Europe 20 per cent, domiciled Europeans, 33 3 per cent, Eurasians, 42·9 per cent.; and Goanese and native Christians, 85 7 per cent.

SIR RICHARD QUAIN, BART., M.D.

SIR RICHARD QUAIN's death removes another name from the list of distinguished living physicians. Born at Mallow, on the Blackwater, in 1816, he was educated at Limerick, and migrated to London, joining the medical faculty at University College. Here he served with distinction, building up a reputation which secured for him in 1860 a nomination by the Queen in Council as member of the Senate of the University. He was subsequently appointed Crown representative on the General Medical Council, and member of Earl SPENCER's Royal Commission for investigating rinderpest and cattle-plague. For more than thirty years Sir RICHARD QUAIN was Physician Extraordinary to the Queen. He wrote voluminously and edited that standard medical work "A Dictionary of Medicine" Most of the posts of honor in the medical profession have at one time or another been held by him, and his pen was constantly employed in advocating the advancement of medical science.

SHOULD WE USE SECRET REMEDIES.

"In these days of [illegible] patented, and otherwise protected proprietary remedies, when many high-class pharmaceutical chemists are flooding the market with various preparations which the medical profession are prescribing freely by their "protected" names, it is high time to have an expression of opinion on this strange [illegible], which seems to set at defiance the high-fangled notions of that inflexible law of medical etiquette, namely, that duly qualified medical practitioners are prohibited from recommending or prescribing "Secret" remedies. The *Provincial Medical Journal* says in regard to this matter: "Secret remedies are those whose ingredients are hidden from professional ken. These, as such, should never be prescribed by medical men. But proprietary medicines, whose ingredients are openly declared or the elements of which are known to medical men, may with propriety be prescribed."

A NEW USE FOR THE X-RAY.

ACCORDING to the Berlin correspondent of the *Medical News*, a German colleague has suggested the availability of the Roentgen ray in the selection of a bride. The end of marriage being the reproduction of the species, any hindrances to this end which exist, and which may be discovered without subjecting the person concerned to any indignity, he argues, should be found out before marriage. Any insuperable pelvic contraction may thus be easily detected, and he suggests that fiancées should exchange not only ordinary but *x*-ray photographs, when the preliminary steps to matrimony are being taken. This method, he considers, will be of invaluable service to members of the royal families to whom the birth of an heir is all-important, and the skiagraph of his beloved will be one of the things that a princeling will be supposed to possess before seriously commencing negotiations for her hand.

THE MIDWIFE MUST HAVE HER PLACE.

WE take the following from the *Lancet*.—" Midwives, as we have said, are a recognised institution. The public intend to have them and the talk about dispensing with them entirely is idle nonsense, and remains idle nonsense even when based upon elaborate long-division sums to prove that if all the parturient women were divided up by all the names on the Medical Register there would only be an average of so many cases for every medical man. The quotient is uninteresting because all parturient women do not desire male attendants and all medical men do not desire to attend midwifery cases. The intervention of the midwife must be regarded as necessary, upon which it follows that she must be clean and also that she must not usurp the functions of the medical profession, and so endanger the lives of her patients by undertaking work for which she has not received adequate medical and surgical instruction."

MUNICIPAL IMPROVEMENTS OF CALCUTTA.

AMONG the many suggested plans for the site of the new Municipal Buildings for Calcutta, it will be gratifying to the readers of the *Record* to learn that the situation recommended by this journal has been decided upon, and the plan of acquiring the grounds needed for this important sanitary undertaking—for it will be a distinct hygienic improvement of that insanitary region—is precisely the one sketched out by the *Record*. The Municipality deserves considerable credit for its liberal enterprise in this matter, for the total outlay on it is to run into a sum of nearly 7 lakhs of rupees or £70,000. The architectural design of the new offices is by Mr. GWYTHER, an Anglo-Indian Executive Engineer of the P. W. D., and is worthy of the highest praise.

THE [illegible] MEDICAL COUNCIL AND MEDICAL REGISTRATION IN INDIA.

Since the Indian Medical Record quotes from the official report of the proceedings of the General Medical Council at Cannes, Britain:—"A communication was read from Dr. R. WALLACE, Secretary of the Indian Medical Association, asking for the support of the Council to a proposition that the Government of India should be requested in future to give State appointments only to men whose names are on the British *Medical Register*, and that evidence in courts of law and medical certificates for State or legal purposes should be received only from such persons, or from others whom the State, after due and proper examination, shall authorise to perform such offices. The Executive Committee resolved that it was not prepared to recommend the Council to take any action in the matter in the absence of any distinct proposal for legislation."

The Indian Medical Association will now approach the General Medical Council with a definite proposal for legislation.

THE SMOKE NUISANCE IN THE CAPITAL OF INDIA.

IT is high time, complains the *Statesman*, that something was done to abate the smoke nuisance in Calcutta. Year after year, the air of the metropolis, never in its unadulterated state remarkable for salubrity, becomes increasingly foul, owing largely to the dense clouds of smoke vomited forth day and night from the chimney shafts of the different mills that girdle the city. The pollution of the atmosphere from this cause has reached a pitch which calls for active interference.

IMPORTANT NOTICE TO DEFAULTING SUBSCRIBERS.

OUR Manager regrets being compelled to notify BAD PAYS by a new method. He is tired of old methods as BAD PAYS thrive on secrecy. He notifies that subscribers to the *Record*, who have not paid their dues for over three years, will have their amounts notified to them through the *Record* in a regular list. He gives one full month's notice of this threat, which will be put into execution on the 1st May next.

SUIT AGAINST A DENTIST.

A WOMAN recently brought a suit against a New York dentist for injuries to her jaw which she alleged were caused by the unskilful extraction of a tooth by the dentist. She secured a verdict for $10,000, her case being materially strengthened by the submitting on the part of the plaintiff of a certificate attesting that the defendant had been before convicted in court for practising dentistry without a license.

SHORT ITEMS.

THE *Calcutta Gazette* announces that Dr. James R. Wallace, Editor, *Indian Medical Record*, has been elected by popular vote to the Calcutta Municipal Council, as the representative of Ward 16 in the Calcutta Municipality. This is the largest and most influential European ward in the metropolis, and Dr. Wallace's candidature for it was supported by Dr William Coulter, Surgeon-Colonel J. O'Brien, the Hon'ble Justice Jenkins, the Hon'ble Justice Amir Ali and several leading English citizens. At the poll he stood second in the voting.

A number of doctors who have been doing duty in the Bombay Presidency in connection with plague have been sent over to Madras for duty. Drs. Best, Nightingale, Bendall Mylor, Hunk, Langley, Battis, and Illingworth arrived there on the 18th instant, and are awaiting orders from the Government. One of these has been appointed to the Government Maternity Hospital. Dr. Knapp, who was recently [illegible] Surgeon-Captain [illegible], second Senior to the General Hospital, has also been provided with an appointment.

A "Magnetic Healer" begins the advertisement of her acquirements and capabilities in the following terms:—"In order to prove, and bring the notice of the effects of so many capacities in the new scientific applications and medical science, the vital and heat magnetism as a remedy to a better observation and cure methods, hold to claim, that this should be realised to the welfare of mankind." The magnetism of her words should almost effect a cure of themselves.

The Civil Surgeon of Shillong (Surgeon-Lieutenant-Colonel R. Neil Campbell), it is understood, is transferred to the Andaman Islands, and the Civil Surgeon of Dhubri (Surgeon-Major Dobson) is to be posted to Shillong. Dr. Campbell rendered especially valuable services during the time immediately following the earthquake, when owing to destruction of the water-supply there were many dangers to be guarded against, and an outbreak of typhoid fever was raging in Shillong.

Dr. W. G. Rockwood, Surgeon of the Colombo General Hospital has retired from public service, and Dr. G. H. Thomas assumed the duties of the post temporarily. Dr. Rockwood's retirement from active life, and his absence from the General Hospital, will be keenly felt, more especially by the medical officers at the Hospital and the students, senior and junior, among all of whom he was greatly liked, and by whom his eminent qualities as a surgeon and lecturer were highly appreciated.

Foot-and-mouth disease has broken out amongst the Government slaughter cattle at Peshawar, over six hundred being under treatment. There is also a good deal of mange amongst the transport animals of the Tirah Force, a large number being under treatment in the Field Veterinary hospitals. Anthrax has appeared in Rawal Pindee, where the veterinary authorities are inspecting all private horses and ponies, as well as those belonging to Government.

Mr. P. J. Freyer, M.D., M.Ch., R.U.I. (formerly of the N.-W. P. and Oudh) has been appointed Surgeon to St. Peter's Hospital for Stone and Genito-urinary Diseases. The rules of this hospital were altered recently, and in future a Master in Surgery of a university, or a Fellow of any College of Surgeons in the United Kingdom will be eligible for election to the surgical staff of the hospital.

The appeal of Dr Cabanis Demello, who was convicted on the 18th January by Rao Saheb Mudliar, Special Magistrate, Poona, of defaming Dr. Mody, and fined Rs. 100, in default one month's simple imprisonment, was decided by the Hon'ble Mr Crowe, District and Sessions Judge. The Judge, finding the charge not proved, reversed the conviction and sentence, and directed the fine, if paid, to be refunded.

The following gentlemen having passed the necessary examinations by the Examining Board in England of the Royal Colleges of Physicians and Surgeons and have been admitted Diplomates in Public Health:—Nesrojí Beramjí Darabsetth, M.R.C.S. Eng., M.B. and C.M. Aberd.; Donald Frederick Dymott, M.R.C.S. Eng., M.B. Lond., Surgeon-Major, I. M. S.

Dr. C. L. Greene speaks highly of the good effects of heavy hypodermic injections of $\frac{1}{2}$ gr. of morphia in otherwise intractable vomiting. If this and all other possible measures fail, and life is seriously endangered, he suggests intubation of the larynx with a special modification of O'Dwyer's tube. If this be unsuccessful, tracheotomy is the *dernier ressort*. The idea, which is supported by experiments on dogs, is that vomiting is impossible if the glottis be kept open.

At a meeting of the Faculty of Medicine held at the Senate Hall on the 18th instant, Dr. Soorjee Coomar Sarvadhikari was elected President and first representative of the Faculty on the Syndicate in the place of Surgeon-Lieutenant-Colonel G. Bomford. Brigade-Surgeon-Lieutenant-Colonel C. H. Joubert was elected second representative *vice* Dr. S. P. Sarvadhikari, who goes out by rotation on the 30th of April next.

Says *Indian Engineering* :—"The Report of the Calcutta Building Committee is published, suggesting the formation of a trust, much on the lines proposed in Bombay, for draining streets through congested areas of Calcutta; also recommending the imposition of taxes in jute and railway passengers to furnish the necessary funds. We shall deal more fully with this subject presently."

According to a Rangoon telegram, the Municipal Health Officer of that town was deputed six weeks ago at a meeting of the Municipality to visit India to study plague prevention, but has not yet started. The Municipality wanting the Local Government to supply all the funds which this Government refuses to do.

Surgeon-Lieutenant-Colonel P. H. Benson, the popular chief of the Medical Department in Mysore, contemplates, says the *Mysore Standard*, training half a dozen educated Brahman girls as compounders for the Female Hospital in the province, and we understand that the Government has quite approved of the suggestion.

The Irish Medical Schools' and Graduates' Association held its annual dinner on the 17th March (St. Patrick's Day), at the Café Monico, at 7-15 P.M. There was large attendance to meet the principal guest of the evening, Admiral Lord Charles Beresford, C.B., M.P. Mr. P. J. Freyer, 46, Harley Street, W., is Honorary Secretary of the Dinner Committee.

Surgeon-Lieutenant-Colonel C. J. H. Warden, Principal Medical Storekeeper, Bengal, has been directed to proceed to Bombay immediately to associate himself with Mr. Haffkine in supervising the extended preparation of anti-plague inoculation serum. Surgeon-Captain Johnstone holds temporary charge of the Medical Store Depôt in Calcutta.

The sudden and premature death of Jules Péan has left a void in the surgical world of Paris. He was without doubt one of the greatest surgeons of the century, and has, by his advances in abdominal surgery, left behind him an imperishable name. His lectures on clinical surgery, consisting of eight volumes, remain a lasting monument to his memory.

The telegraph from London announces that the double- and treble-barrelled military titles of the Army Medical Staff are to be abolished. The members of that service are to be styled Colonels, Majors, Captains and Lieutenants of the Army Medical Corps. We doubt if the change will prove a blessing in disguise.

The death of Dr. William Sullivan Bastin took place at the Madras General Hospital from pneumonia. Deceased was one of the doctors selected for plague duty, and arrived at Madras last week. Since his arrival, he had been an inpatient of the General Hospital. He was only forty years of age.

Surgeon-Colonel Hendley, Principal Administrative Officer in Rajputana, comes to Bengal as Inspector-General of Hospitals, *vice* Surgeon-Colonel Newman, who has been transferred to the Punjab. Surgeon-Colonel Adams from Jodhpur succeeds Surgeon-Colonel Hendley.

Surgeon-Lieutenant-Colonel Sinclair succeeds to the vacancy caused by the expiration of the term of service of Surgeon-Colonel Hunt, Principal Medical Officer, Bangalore, but will retain his present appointment of Inspector-General of Jails, Burmah.

The Government of India has approved of the proposal that when, owing to the exigencies of the service, a medical officer of the rank of Surgeon-Lieutenant-Colonel is appointed Principal Medical Officer of a General Hospital of 500 beds, he be granted temporary brigade rank.

The death is announced at Dera Ghazi Khan on the 22nd March of Lieutenant A. S. Stephen of paralysis. Lieutenant Stephen was the only son of Brigade-Surgeon Lieutenant-Colonel Stephen, late Sanitary Commissioner of the Punjab, and entered the Punjab Commission in November 1895.

Surgeon-Major R. Ross, on special duty in connection with the investigation of malaria and kala azar, begins his researches in Calcutta in connection with the mosquito malaria theory and then continues his investigation with particular reference to kala azar in Assam.

The Court of Appeal has acquitted Dr. Laporte, who, it will be remembered was condemned by the Court of First Instance for having caused the death of a patient in whom he had performed craniotomy. The Advocate-General has in addition withdrawn all accusations against him.

Mr. Haffkine will shortly proceed, in company with Surgeon-Colonel Edward Lawrie, to the plague-infected villages in the Nizam's territory in order to introduce prophylactic inoculations on a large scale.

Malthusian doctrines do not seem to be popular with the London poor. A woman who recently applied for relief to a magistrate in some domestic complications stated that she was the mother of twenty children.

Surgeon-Lieutenant-Colonel D. P. Macdonald, senior medical officer, Port Blair, acts as Medical Storekeeper, Bengal Command, during the absence of Surgeon-Lieutenant-Colonel Warden to Bombay on plague duty.

The proposed trial of vaccination against the typhoid fever amongst British officers and soldiers in this country has, we hear, been negatived by the Secretary of State for War.

Surgeon-Major H. W. Hubbard is appointed to have medical charge of the civil station of Dinapore, in addition to his own duties, *vice* Surgeon-Lieutenant J. G. P. Murray.

Dr. Lustig's serum does not seem to be efficacious. Of 24 patients treated at the Arthur Road Hospital, Bombay, 16 have since died.

We regret to announce the death of Surgeon-Captain J. Walker, M.D., A. M. S., at Jacobabad, of pneumonia, on the 23rd March.

Dr. Godinho, of the Jamsetji Jeejeebhoy Hospital, Bombay, who was admitted into the European Plague Ward, died on the 28rd March.

The services of Surgeon-Colonel J. H. Newman, substantive *pro tempore* Inspector-General, Civil Hospitals, Bengal, are replaced at the disposal of the Military Department.

Current Medical Literature.

MEDICINE.

Tabes and Syphilis.

In a recent number of the *Berliner Klinische Wochenschrift* Erb contributes an article which has been evoked by the publication of some recent statistics by Leyden apparently intended to show that the connection between syphilis and tabes was by no means constant. Erb's views, as is well known, are quite opposed to such a doctrine, and he holds that the connection between syphilis and tabes is a very close, if not a constant, one. Leyden's figures are analysed by his pupil Storbeck and they comprise 108 cases. Of this number 69·4 per cent. are said to have developed tabes without any preceding syphilis. Erb criticises these figures, pointing out that the number considered is far too small for statistical purposes, and further that 52 of the cases—33 women and 19 men—are cases occurring among the lower classes. As is generally recognised, negative evidence of the occurrence of syphilis in the lower classes, or of its occurrence in women of any class, is not to be relied upon. Erb himself adduces evidence gathered from a consideration of 200 cases of tabes occurring among men in the upper classes. Of these 15 had no evidence of infection, 123 had had undoubted secondary syphilis, while 62 had had chancres but no secondary symptoms. Of the 62 who had only chancres 25 had either an undoubted hard chancre or had been subjected to anti-syphilitic treatment on account of the suspicious character of their condition. Further, of the 15 in whom there was no evidence of syphilitic infection 11 could not be regarded as above suspicion on account of the occurrence of one or more attacks of gonorrhœa in some, repeated miscarriages by the wives of others, and such like, so that out of the 200 cases there were really only 4—*i.e.*, 2 per cent.—in whom syphilitic infection could, as far as that is usually possible, be excluded. If any further proof were needed of the close dependence of tabes on syphilitic infection, we venture to think that these statistics of Erb will furnish it.—*Lancet.*

Diagnostic Importance of Exact Pulse Examinations.

W. Janowski deprecates the modern tendency to regard lightly the information to be obtained from the pulse, and attaches much importance to the results obtained by an intelligent use of the sphygmograph. He recognizes eighteen forms of arterial pulse, which are to be grouped as follows.—(*A*) Pulse whose characteristics are recognizable from the inspection of tracings of a single beat. 1, Pulsus durus; 2, pulsus mollis; 3, pulsus celer: 4, pulsus tardus; 5, pulsus magnus; 6, pulsus parvus. (*B*) Those forms which require for their recognition tracings of a succession of beats. 7, pulsus frequens; 8, pulsus rarus; 9, pulsus irregularis; 10, pulsus embryocardia (a rapid, short systole, followed by an equally rapid and short distole, the pause being altogether lacking, 11, double pulse, in which each beat is closely followed by another, a pause then intervening before the next beat (triple and quadruple forms are also found); 12, unequal pulse, characterized by unequal height of the wave summits; 13, alternating pulse, in which small waves succeed larger ones in a definitely proportionate manner; 14, the so-called pulsus paradoxus, in which the character of the single waves is influenced by respiration; 15, alternating form of double pulse, in which the first of the two beats is larger than the second; 16, hemisystolia, two heart beats giving rise to but a single pulse; 17, condition of total arrhythmia, presenting differences in size and rhythm not governed by any rule perceptible; 18, pulsus differens, a pulse different in the two halves of the body. Each of the above is exhaustively but practically treated, and the value of the discussion is furthered by numerous reproductions of pulse tracings taken at the bedside.—*N. Y. Med. Rec.*

For Infantile Constipation.

Carrière, in speaking of infantile constipation, says that the alimentation should first be attended to. If the child is on the breast, the number of nursings is probably at fault; or, it may be necessary to prescribe exercise for the mother. At the period of weaning arrowroot and other preparations of a somewhat laxative character will be of service. A little soup, preferably that of chicken, with tapioca, or bits of bread may also be given. In other cases, massage, laxatives, or suppositories may be employed. Massage is practised as follows:—Every morning the palm of the hand is oiled with vaselin, and with it circular motions are made around the umbilicus, beginning in the right iliac fossa. The pressure should be light, and the whole treatment should not exceed ten minutes. After the first year the massage should follow the course of the large intestine. As laxatives, the author recommends castor oil and magnesia. In order to secure an immediate evacuation injections or suppositories may be used. Injections should not be larger than 2 ounces during the first six months, and 4 ounces after the first year. Boiled water, a weak solution of camomile, or water with a spoonful of oil of sweet almonds may be used.—*Med News.*

Don'ts in Heart Disease.

Don't feel called upon to give digitalis as soon as your hear a murmur over the heart. Study and treat the patient, not the murmur.

Don't conclude that every murmur indicates disease of the heart.

Don't forget that the pulse and general appearance of the patient often tell more than auscultation.

Don't neglect to note the character of the pulse when you feel it. Possibly you may look at the tongue to satisfy the patient; feel the pulse to instruct yourself.

Don't think every systolic murmur at the apex indicates mitral regurgitation; every systolic murmur at the aortic interspace, aortic stenosis. The former may be trivial; the latter may be due to atheroma of the arch of the aorta.

Don't say every sudden death is due to heart disease

Don't forget that the most serious diseases of the heart may occasion no murmur. A bad muscle is worse than a leaky valve.

Don't examine the heart through heavy clothing.

Don't give positive opinions after one examination.—*Phil Med. Jour.*

Intussusception: Nine Inches of Gut passed per Rectum.

Laurent and Paley record a fatal case of intussusception, the patient apparently refusing operation. A woman, aged 33, had feverish symptoms, headache, and gastric trouble for a few days, when suddenly acute obstruction set in. There was intense pain in the right iliac fossa, where a tender, elongated tumour could be felt. Appendicitis or intussusception was diagnosed. At the end of a fortnight the feverishness abated, and spontaneous diarrhœa set in, the abdomen previously much swollen became flat. Nine days later a very fœtid stool was passed, and in it was found a sloughy mass 25 cm. (9¾ inches) long. It consisted of ileum with part of the cæcum. For a week the patient did well, then vomiting and fœtid diarrhœa set in, and death occurred a few days later. No mention of any necropsy is made. Laurent and Paley observe that this is not the first case where the free elimination of the intussuscepted gut was not followed by ultimate recovery.—*Brit. Med. Jour.*

OPHTHALMIC SURGERY NOTES.

By C. C. CALLE, M.B., M.S.

Professor of Ophthalmic Medicine and Surgery, Lahore Medical College.

Treatment of Trachoma.

HAVING regard to the great importance of the subject, I quote in extenso the following extract from the *Edinburgh Medical Journal* :—

"The granular inflammation of the lids, or trachoma, is a disease the treatment of which has, to day the least, been most unsatisfactory hitherto. Some time ago, when various operative measures for the removal of the characteristic follicles were introduced, many were sanguine as to the results which would follow such treatment. Most of those who have large experience of it cannot, however, boast of much success. A couple of years ago, Dr NESNAMOFF, of Charkow, published in Russia, where trachoma is in many parts a common affliction, a method of treatment with iodine solutions, with which he professed to be able to cure the disease. In the August number of the *Centralbl. f. prakt augenh.*, LEIPZIG, he gives full directions as to the manner in which he carries out this treatment. The results which he, and others in Russia, claim to have obtained certainly appear to be astonishingly good If they should be confirmed in other countries, this new method must be looked upon as a very important advance in ocular therapeutics. JAKOWLIFF, an army surgeon, treated 144 cases of trachoma by NESNAMOFF'S method, and came to the conclusion that by its continued use every form of trachoma can be cured. After referring to this and other confirmations of his assertions, NESNAMOFF remarks: "The observations of LEBER, SAWOITSCHINISKI, JAKOWLEFF, and myself show that iodine does not belong to the category of pharmaceutic means, which, having been proposed and tried, are soon abandoned, either because they are of no value or because other measures give equally good palliative results. The rapid healing of trachoma, when the cicatricial stage has not yet been reached, and the marked improvement in the very worst cases, sufficiently show that the iodine treatment deserves special attention." Iodine, he points out causes the absorption of lymphoid elements, as shown by the daily experience of its use in follicular catarrh of the pharynx and in the hyperplasia of lymphatic glands. It is, besides, a powerful antiseptic, which even in weak solutions (1.500) destroys the most resisting micro-organisms. The use of iodine in the shape of tincture, which contains 90 per cent. of pure alcohol, is dangerous in conjunctival disease, as it is apt to injure the cornea. The solvents of iodine, besides ether, which is too volatile, are glycerine and white vaselin oil. The latter is sufficiently penetrating, and does not cause irritation. In both glycerin and white vaselin the iodine is soluble to the extent of 1·5 per cent. To increase its solubility, alcohol may be added to glycerin, or ether to vaselin.

Trachoma consists of a lymphoid infiltration of the adenoid tissue of the conjunctiva, with the formation of follicles which are retiform in their structure and mostly provided with capsules. In the course of time the contents of these follicles necrose and are absorbed. The cicatricial formation is the result of the irritation which accompanies the development of these new bodies in the conjunctiva. Without doubt the primary cause of the development of the trachoma follicles is a microbic one. Where the soil is suitable the microbes quickly multiply, and cause a rapid development of lymph follicles. In other cases the follicles develop slowly but progressively, while at the same time a hyperplasia of the papillæ takes place, and a destruction of epithelium from the invasion of leucocytes. A similar growth of lymph follicles, with the formation of new vessels, characterises the accompanying pannus. The treatment of this consists of dabbing the everted conjunctiva with a 2 per cent. iodine solution of iodine once or twice daily, taking care to protect the cornea, and, if necessary, thoroughly drying the conjunctival surface. The solution is applied with a piece of absorbent cotton-wool. The lids are kept everted for some seconds after the application, until the yellowish or brownish coloration has disappeared. If this is tolerated, the strength of the solution may be gradually increased up to 3 or 4 per cent. The fresh follicular forms of trachoma treated in this way can, according to NESNAMOFF, be cured, without the occurrence of any cicatrization, in from three weeks to three months, depending upon the severity of the attack. In cases of papillary trachoma, in which the conjunctiva is covered with warty granulations and the tarsus markedly thickened, the prognosis is less favourable, not only in respect of a complete *restitutio ad integrum*, but as regards the rapidity of the cure. Yet pretty satisfactory results are to be got in such cases by the use of a 2 to 3 per cent. solution. In a short time the follicles are reduced in size, and the conjunctival surface assumes a more equable velvety-looking character. The frequent accompanying pannus and corneal ulceration of these cases is no contra-indication to the use of the remedy. On the contrary, it leads to a rapid clearing up of the corneal opacity. In pannus crassus the iodine solution should, in fact, be applied directly to the cornea. The iodine should, however, not be used when the trachoma is in the stage of inflammation and the conjunctiva swollen and œdematous. Immediately after the subsidence of these symptoms, and when the follicles make their appearance on the surface of the conjunctiva, the same treatment should be begun, using at first weak (½ per cent.) solutions and gradually increasing their strength.

Nux Vomica in the Treatment of Insufficiency of the Ocular Muscles.

IN an interesting editorial, the *Therapeutic Gazette* for 15th November 1897, summarises the recent observations which have been made upon the signal benefit which follows the administration of nux vomica in ascending doses in cases of muscular insufficiency. MUSSER'S experience, that the dosage of nux vomica is in inverse proportion to the age of the patient is of importance, inasmuch as it shows that this drug can with perfect safety be administered in full doses to children who are so often the subject of insufficiency; in one of MUSSER'S cases as many as 200 drops, three times a day, were well borne. The presence of retinitis or of retinal irritability, as has been pointed out by DR SCHWEINITZ, is a contra-indication to the use of nux vomica in full doses. It is, of course, not to be forgotten, that any existing error of refraction is to be accurately corrected by means of spherical lenses properly decentered or used in conjunction with prisms if necessary.

Relation of Intra-Ocular Circulation to Glaucoma.

SULZER, as a result of the study of a series of special cases, divides glaucoma into three classes; circulatory, vascular, and nervous, and maintains that all these are in the first instance due to vascular degeneration. In the vascular group the degeneration is primary; in the circulatory group it is caused by the disturbance of equilibrium between the intra-ocular and arterial tensions; whilst in the nervous group it is to be traced directly to a nerve origin. According to SULZER, the cupping of the disc which is so characteristic of glaucoma, and which is ascribed by the general body of ophthalmologists to the direct mechanical effect of increased intra-ocular tension is primarily due to degeneration of the myeline fibres from malnutrition—the defective or insufficient nutrition itself being dependent upon disturbance of the retinal circulation. If these views are proved to be correct, much greater attention will have to be paid to the intra-ocular circulation than seems to be the case at present, if the treatment of glaucoma is to be conducted on rational lines.

Obstetrics and Gynæcology.

The care of the Perineum in Labor, and its repair afterwards.

From the basis of an extended clinical experience, HAFFEL draws the following deductions: He insists that the condition of the patient before delivery should be separately known, in order that all of her secretory and excretory organs may be suitably regulated. If leucorrhœa exists, hot douches, medicated where necessary, should be employed. If the patient be a primipara of advanced years, massage of the perineum and vulva before and during labor will be beneficial. During labor the physician should keep informed by educated touch as to the dilatability and degree of dilatation of the outlet. When labor is normal in every respect, the perineum will need little or no support, but the palmar surface of the hand should be ready to furnish support, should it be needed. When the perineum yields slowly and irregularly, the hand should be ready to give support at any moment, and this support must be given in a proper manner during the least expulsive pains. Chloroform should be employed freely and the woman exhorted not to bear down. In case of rupture, an immediate operation for repair should be undertaken, but for the purpose of determining the fact of a rupture it should not be necessary to subject the woman to indelicate and needless exposure. If educated touch cannot detect laceration, then repair is not needed. If doubt exists with regard to a laceration, careful inspection of the parts should be made. Slight fissures and abrasions do not need sutures. More harm may be inflicted with sutures by invasion of the deeper structures of the canal than good effected by closing these rents in the mucous membrane of the vagina. No other antiseptic is needed in primary operations than water, which should be boiled and used as hot as can be borne by the patient.—*N. Y. Med. Rec.*

Chloroform in Obstetrics.

THE following propositions may be advanced: 1. The most recent experimental study indicates that the evil effects of chloroform result from vasomotor paralysis, causing the accumulation of blood in the abdominal viscera especially, and bringing about partial or complete cessation of function in the nervous centres from acute anæmia. 2. Pregnancy increases vasomotor tension, and thereby renders the pregnant woman less liable to the injurious effects of chloroform. 3. In normal labor, the actual expulsion of the child may be safely rendered painless, dilatation of the birth canal furthered, and laceration diminished, by light and transient narcosis from chloroform. 4. In tetanus of the uterus, eclamptic convulsions, and maniacal labor, chloroform is to be preferred to ether, and is most useful. 5. Profound narcosis from chloroform is seldom if ever necessary in obstetric practice, and, like this condition under ether, is attended with risk.—E. P. DAVIS, *N. Y. Med. Rec.*

Puerperal Tetanus.

RUBESKA describes at length 6 unpublished cases of tetanus in childhood. All ended fatally, and in all definite organic lesions were detected. He also notes 3 other cases recently published by PIPEK in a paper written in the Bohemian language; these were also all fatal. RUBESKA issued in 1890 an earlier report of 11 cases, none of which recovered. He notes, however, IRVING'S case where tetanus set in on the eleventh day after delivery, remained acute for a fortnight, and then passed slowly off, the patient ultimately recovering. The earliest date for the onset of tetanus is the sixth, the latest the eleventh day. It begins in puerperal cases by trismus and dysphagia, and not by tetanic contractions of muscles near the pelvis. Narcotics, antisepsis, and serum treatment, as well as, in one case, immediate extirpation of the uterus, proved unavailing in the 20 fatal cases collected by RUBESKA. He discusses the bacteriology of this form of tetanus. HEYSE has shown that streptococcus infection does not predispose to secondary infection of the genital tract by the tetanus bacillus.—*Brit. Med. Jour.*

Deciduoma Malignum.

LONNBERG AND MANNHEIMER, place under this category two cases under their own observation. The first was described many years ago as epithelioma following pregnancy. The patient was a multipara, aged 32. One November she was delivered at term with forceps. Two months later, metrorrhagia having continued for four weeks, an examination was made and a mass of fibrin discovered. In January the cervix was dilated, and a tumour of the size of an almond removed by the curette from the anterior wall of the uterine cavity. The bleeding grew worse, and masses of a spongy substance were expelled, and it was noted that they resembled decidua. Emaciation became marked, and the patient died six months after delivery. Cancerous growths were found in the lungs, liver, spleen, kidneys and abdominal lymphatics. The uterine growth appeared under the microscope as "of the usual structure seen in epithelial cancer." The second patient was 42. On 19th November 1893, her third confinement ended at the fourth month, a large vascular mole being expelled. Seven weeks later metrorrhagia set in. For nearly two years the bleeding went on. The body of the uterus was as large as a fist, and metastatic deposits were found in the vagina. On 18th October 1895, the uterus was removed. On the 30th of the same month the metastases in the vagina were excised. The microscopic appearances corresponded to what is usually termed decidual tissue. On 1st April 1896, the patient was in good health, with no sign of local or general recurrence or diffusion of the new growth.—*Brit. Med. Jour.*

Technique of Vaginal Section Irrespective of Hysterectomy, for Diseased Appendages and Small Pelvic Tumours.

ANYTHING that lessens shock reduces the mortality in operations and shortens convalescence, but though he thinks that vaginal section will scarcely supersede abdominal section, Dr. AUGUSTIN H. GOELET claims the following advantages for the former over the latter: (1) More ready consent of patient to vaginal section and consequently earlier removal of hopelessly diseased organs and less mortality than in the graver operation of abdominal section. (2) Less risk, by a long way of peritonitis and ready means for removal of diseased conditions that would not warrant the gravity of abdominal section. (3) Safe exploration of pelvis to clear up diagnosis when the diseased condition is not extensive and the adhesions neither dense nor numerous. (4) More satisfactory and perfect drainage, and (5) quicker complete union of the incision and a rapid uneventful recovery. Vaginal section is preferably applicable for—(1) Small, solid or partly solid pelvic tumors. (2) Cystic or otherwise enlarged and diseased ovaries. (3) Ovarian cysts of considerable size can be evacuated of their fluid contents and their sacs withdrawn through a very small vaginal incision. (4) Hæmato-hydro or pyo-salpinx. (5) Removing small subperitoneal fibroids by myomectomy. (6) Draining pus accumulation low down in the pelvis. (7) Hæmatoma and hæmatocele including ectopic gestation, and (8) pelvic exudations which resist other means for their removal.—*Jour. Amer. Med. Assoc. and M. & S. Rep.*

PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

Relation between the Testicle and Prostate.

FLODERUS says that as extirpation of a single testicle is often followed by atrophy of the corresponding side of the prostate gland, it must be due to some nerve relation between the two rather than to any altered internal secretion. Removal of both testicles before maturity interferes with the full development of the prostate. That castration after full maturity will reduce a normal prostate is in dispute. If it does so, it reduces the volume and elasticity of the organ, and increases its consistency. The effect of complete castration in beginning, or fully developed hypertrophies, is irregular, and often not demonstrable. The reduction in volume is sometimes confined to the upper part of the prostate, and is accompanied by a loss of elasticity; while in others a shortening of the urethra is noticeable. Tuberculous processes in the gland may be brought to a standstill, or even cured, by castration.

Unilateral castration sometimes produces in the corresponding side of the normal adult prostate such changes as have been above described. It will not prevent future hypertrophy. Its effect on existing hypertrophy is slow, and consists in a shrinkage of the corresponding side, especially in the upper portion of the gland. It may cause healing of tuberculous lesions. Unilateral castration is not followed by a demonstrable reduction in size of the opposite lobe of the prostate. There usually results atrophy of the seminal vesicles, with compensatory hypertrophy of the other testicle (and prostatic lobe?). The advantages of double over unilateral castration are, therefore, plain.—*Med. News.*

Physiological action of Massage on Glandular Secretion.

COLOMBO experimenting on dogs with gastric and billiary fistulæ, has estimated the effect of massage on the amount and quality of the gastric juice, bile, and renal secretion. He found that as regards the gastric juice, the quantity which came through the fistula in the space of two hours was more than double that which flowed without massage. Massage for five minutes made no difference, but when continued for fifteen minutes the secretion reached its maximum; if continued longer, the amount remained about the same, but the quality was poorer. As regards the bile, the best results were obtained by ten minutes' percussion followed by ten minutes' friction and kneading. Ten minutes' abdominal massage also increased the amount of urine; slight traces of albumen were observed in the first few minutes after massage, but this was only transitory. In each case the watery part of the secretion was increased out of proportion to the specific elements. This suggests that the observed increase is largely due to a greater flow of blood and better filtration in the various organs concerned.—*Brit. Med. Jour.*

Fusion of the Kidneys.

MESCHINET DE RICHEMOND exhibited at a recent meeting of the Bordeaux Anatomical Society a specimen in which the kidneys were united, not by their upper ends into the rarely seen horseshoe kidney, but by their lower extremities into the more common crescentic form. The author believes the greater frequency of fusion of the lower renal extremities to be due to the oblique position in which these organs normally lie with their lower ends approximated. The specimen came from a negro, 24 years of age, and had given rise to no symptoms of inconvenience during life. The point of union was at the sacro-lumbar articulation, and was marked by great thinning out of the renal tissue.—*Brit. Med. Jour.*

Pathology of Multiple Sclerosis.

As he had observed hydrocephalus combined with central gliosis and multiple sclerotic foci, the first symptoms of which could actually be traced back to childhood, Professor SEMIMPELI discards the toxic theories of OPPENHEIM and disagreeing with MARINE' view of its being, in most cases, a sequel of acute infectio s diseases, expresses his candid opinion that multiple sclerosis mainly depends upon some congenital abnormalities in the nervous system. He also calls attention to (1) the character of the disordered movement which does not essentially differ from the ataxy of tabes, and (2) the frequent absence of the abdominal reflex, as two important conditions in the symptomatology of the disease.—*Pac. Med. Jour.*

Pathology of Appendicitis.

SHOWING that appendicitis develops through the following stages: (1) catarrhal inflammation of the living mucous membrance with (2) hypertrophy of muscular and mucous coats and irregular narrowing of calibre, (3) strictures, (4) imprisoning food, desquamated epithelium and pus-forming concretion, (5) to produce obstruction, distension, perforation and abscess. Dr. ROBERT ABBE assigns three distinct causes for the obstruction that may lead to ultimate gangrene, perforation or rupture: (1) catarrhal inflammation followed (as in the urethra) by stricture. (2) microbic ravages. (3) A flexure from an abbreviated point in its mesentery may arrest the fœcal contents such as epithelial scales, pus and starch cells, shreds of meat fibre, bacterial debris, &c., which become inspirated and grow into a concretion which becoming a source of irritation leads to pus formation.—*Med. Rec.*

Serum Diagnosis of Enteric Fever.

LEVY and GIESLER describe their method of carrying out WIDAL'S test. The typhoid bouillon culture should not be older than ten to twelve hours; otherwise there is danger of a pseudoagglutination. The authors maintain that fluid serum should be used in preference to dry blood. An observation period of two hours is sufficient. In a typhoid epidemic the serum reaction gave a positive result in 105 out of 115 cases The authors investigated these cases in such a way that one of them made the bacteriological examination and the other the clinical, and then they compared notes. All the 105 cases showed the clinical characteristics of enteric fever, whereas the remaining 10 did not. When it is considered how difficult it is to exclude errors of diagnosis in an epidemic, the value of the test becomes obvious. Two cases were particularly instructive. The diagnosis lay between enteric and puerperal fevers. In the one case the patient was admitted after fourteen days' illness, and WIDAL'S test was positive. Besides a puerperal endometritis, the characteristic lesions of enteric fever were found after death. In the other case the patient was sent in with the diagnosis of enteric fever, but the reaction was negative. At the necropsy, a puerperal endometritis was found, but no lesions of enteric fever. A table is appended showing the details of the various cases. In none of the genuine cases did the reaction fail. The serum reaction enabled them to distinguish between diseases with symptoms resembling enteric fever and the abortive forms of the disease itself. In 10 of the 18 cases it made the diagnosis possible in the first week; of the remaining 8, 5 were not enteric fever, and 3 gave the reaction later. Of 26 examined in the second week of the illness, the reaction was positive in 22, and the remaining 4 proved not to be typhoid Of 16 in the third week, 24 were positive, and the remaining 2 turned out not to be typhoid fever; 16 examined in the fourth week, 18 in the fifth, 7 in the sixth, 10 in the seventh, and 5 in the eighth all gave positive results, and the disease presented the characteristics of enteric fever.—*Brit. Med. Jour.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Recent Researches on Tetanus Intoxication.

Dr. WASSERMANN, assistant to Professor KOCH, and Dr. TAKAKI, of Japan, have published an interesting article on tetanus intoxication in the *Berliner Klinische Wochenschrift* of 3rd January. In an essay on diphtheria antitoxin Professor EHRLICH has suggested that infective diseases are due to the affinity of certain cells for the specific virus, tetanus, for instance, being the result of the tetanic virus entering into combination with the cells of the spinal cord. According to the same theory the substance of these cells, which he terms "toxofore Seitenketten" (toxoforic cells), is rendered soluble in the process of immunisation and enters into the circulation so that the antitoxin of tetanus consists only of the medullary cells in a soluble form. Dr. WASSERMANN concluded that if this theory of Professor EHRLICH were true the normal spinal cord must contain antitoxic substances and that it might therefore be possible to immunise an animal against tetanus by injections of spinal substance. Dr. WASSERMANN and Dr. TAKAKI having accordingly made an emulsion of the cerebral and spinal substance of healthy animals with the aid of a solution of sodium chloride, injected it together with tetanus toxin into white mice and succeeded in ascertaining the remarkable fact that the spinal and especially the cerebral substance both of the human subject and of guinea-pigs, rabbits, horses, &c, has a strong antitoxic action against the tetanus toxin. It neutralises the virus and will even save the life of an animal if injected several hours after inoculation with infective matter. Dr. WASSERMANN and Dr. TAKAKI are of opinion that the spinal and cerebral cells of the injected substance by their affinity for the tetanus toxin prevent it from invading the central nervous system. They propose to designate this new method of immunisation as "Seitenketten Immunitat" and they point out that their researches, although of theoretical interest, do not seem to be available for practical use. The paper is accompanied by a detailed description of the experiments.—*Lancet.*

Sanitary Care of Canned Foods.

Dr. T. BROWN, at the Sanitary Congress at Leeds, avowed himself to be a strong advocate of legislation in the matter of canned foods. In regard to tinned fruits Dr BROWN said, he had not heard of any case which had ended fatally. He had, however, made numerous analyses showing that in cans in which lead was used in tinning or soldering, the former metal was found in the fruits and syrup How long foods hermetically sealed would keep was not definitely known. Having had canned foods, including meats, soups, rabbits, giblets, and oysters from twenty to thirty years, he had found that the tins, though rusty outside, were perfectly good inside The meats were sound, though not as fresh and tempting to the eye as recently prepared samples. In canned fruits, however, the effect of age was that the acids of the fruits dissolved, by chemic and galvanic action, the plating and solder with disastrous consequences To safeguard the public health, Dr. BROWN recommended the government to forbid tinned foods in which tin used for plating contained more than 1 per cent. of lead or more than 10 per cent. in solder, the same law in fact which had been in force in Germany since 1889.—*Jour. Amer. Med. Assoc.*

Physical vs. Mental Health.

We cannot deny the facts of physiological psychology. Consciousness depends on the condition of the brain. Drugs may modify character. Insanity may be produced by physical conditions. The decay of mind leaves no part of consciousness free. The way to meet this class of facts is not by denial. While we believe that consciousness depends on the brain and on health, an equally significant fact is that the bodily state depends upon the consciousness. The impressive thing is that bodily health is chiefly related to a state of mind. It is rather more true that digestion depends upon feeling well, than that feeling well mentally depends upon digestion. If it is true that a red-hot iron burns the flesh, it is also true that burn wounds have been produced by hypnotic suggestion. It is a reciprocal union—mind and body are both correlated in both directions.—*Med. Brief.*

Distinction of Raw from Boiled Milk.

Although this question possesses but little direct relation to clinical chemistry proper, yet as processes for treating milk are now largely used, it will be of some interest to know that it is possible to determine whether it has been sterilized, that is, heated to the boiling point, or only pasteurised. R. DUPONY, a French chemist, recently published several tests which will distinguish between raw and boiled milk, giving distinct color reactions with the former and none with the latter. I have repeated these tests with entire satisfaction, and have also found that the photographic developer called amidol may be used, although the reaction is not so striking as with the substances DUPONY indicates. The best test is a synthetic coal-tar product which rejoices in the name of para-diamidobenzene. When a solution of this is added to a little raw milk and followed by a few drops of hydrogen dioxid solution a deep blue is at once produced. I have found that the action is still produced if the milk be heated to 170°F., but ceases if it be heated to 180°F. I intend to test some of the milk which is now offered for sale as pasteurised.—*Phil. Poly.*

Boil the Water.

Every physician should so advise the families under his care Let sufficient for the day's supply of drinking water be boiled in the morning and set in a cool, clean place in clean covered jars. It should never have ice added to it, either in summer or winter. The supply of milk should be similarly treated. In this way much disease can be prevented.—*Phil Poly*

Control the Wet Nurse.

Since Uhnikoff has demonstrated that ammonia added to human milk causes a dark red color, varying with the amount of reagent (one drop of a ten-per-cent. solution added to five cubic centimetres of milk causing a violent hue), and that the longer the milk has been flowing the more intense is the reaction, we are in a position scientifically to verify a nurse's statements as to the length of time since her confinement.—*N. Y. Med. Rec.*

Important Legal Decision: Water-Companies Liable for Damages for Impure Water.

In Wisconsin, a man died of typhoid fever. The widow sued the Ashland Water Company and won her suit, receiving $5,000 damages. The court held that water-companies are responsible for damages resulting from the use of the unwholesome water they provide. We believe this decision is an epoch-making event, and are most heartily glad of its occurrence. If it should be plain that typhoid fever and other infectious diseases in any or in many cases, have been due to the water supplied by the companies, private, urban, or governmental, those who have been afflicted, if they recover, or their relatives, if the patients die, should at once institute legal proceedings, and press the suit to a conclusion. The same law must, of course, apply to those supplying diseased milk, meat, etc Touch the pocketbook and the reforms that have been impossible through the politicians and selfish interests of those concerned will at once, and as if by magic, be effected. The dollar is more powerful than humanitarian motives.—*Phil. Med Jour.*

[illegible]

Serum Treatment of Syphilis.

Dr. Sukoff has recently published [illegible] which for his Doctor's degree [illegible] made in the treatment of [illegible] by the serum of [illegible] patients. Summing up the experience [illegible] finds that the results in this [illegible] have been most varied, some reporting [illegible] offering the promise of cure [illegible] majority of cases, while other observers have failed to obtain any favorable results and consider the method as worse than useless. Dr. Sukoff's method differed slightly from those formerly employed in that he [illegible] the horses from which the serum was taken by [illegible] doses of mercury until marked signs of mercurialism showed themselves. Twelve patients suffering from syphilis received a series of injections of blood serum taken from [illegible] mercurialised horses. The results were not favorable. The patients lost in weight with few exceptions; the disappearance of symptoms when it occurred was only temporary; the blood in every case was found to contain a diminished number of red and white corpuscles, the hemoglobin was lessened in quantity, and the specific gravity of the blood fell below the normal. The injections were sometimes accompanied by unpleasant symptoms, such as gastric disturbances, pains of various kinds, erythematous rashes, and some rise in temperature, consequently Dr. Sukoff is unable to regard the serum of mercurialised horses as a promising method of treating syphilis. —*Lancet.*

Method of Concentrating Therapeutic Serums.

Bujwid has experimented with diphtheria and tetanus antitoxin preparations in order to obtain concentrated solutions. The dried preparations are unreliable and under certain circumstances may be dangerous. Partial evaporation of serums at a low temperature gives a curdy product. A better method consists in freezing the remedy. The ice is clear and there remains only a small amount of a brownish fluid in the bottom of the glass. If the glass of serum is allowed to thaw slowly the upper layer is without color and contains little beside pure water.—*Med. News.*

Serum Treatment of Scarlet Fever, Measles, Pneumonia, and Erysipelas.

Huber and Blumenthal have experimented with the blood of persons convalescent from these diseases. Blood drawn from a vein of the elbow, the serum was mixed with an equal amount of physiological solution of salt, one per cent. of chloroform was added, and the mixture was passed twice through a Berkfeld filter. The serum was used in thirteen cases of scarlet fever, nine of measles, fourteen of pneumonia, and six of erysipelas. It mitigated and shortened them all, but did not hasten defervescence in the cases of pneumonia.—*N. Y. Med. Jour.*

Therapeutic Ferments; Beer Yeast in Diabetes.

The diet can be varied in diabetes if two or three tablespoonfuls of beer yeast are taken during the day at meals, disguised in beer or white wine. It promotes assimilation and destroys the sugar derived from the food, while preventing the accidents that follow an exclusive meat diet. It is especially useful in cases in which the sugar is chiefly derived from the food, but is beneficial in all. It should be discontinued for a few days from time to time, or be taken every three or four days.—*Jour. Amer. Med. Assn.*

[illegible]

Repeated every hour, or [illegible]

℞	Hydrarg. chlor. mit.	[illegible]
	Cerii oxalatis	[illegible]
	Codeinæ sulphatis	[illegible]

Ft. chartæ.

Give at intervals of half an hour until [illegible] have been administered.—Dr. [illegible] in the *Therapeutic Gazette.*

Peppermint Cordial.

Peppermint-water	Oj.
Proof spirit	Oj.
Lump sugar	℥xij.

Dissolve the sugar in the peppermint-water and mix with the spirit. A pale green color is usually given by bruising a few blades of grass with a little of the spirit, and adding a sufficiency to impart the desired tint.

Gingerette Cordial.

Essence ginger	℥j.
Tincture orange peel	℥j.
Essence vanilla	℥j.
Rectified spirit	℥x.
Syrup	℥xiv.
Distilled water	℥xiv.

Mix and filter bright, color with burnt sugar.—*C. & D.*

Tuberculosis in Children.

℞	Balsami peruviani	5
	Olei jecoris aselli	10
	Gummi arabici	5
	Aquæ destillatæ ... q.s. ad emulsio	80
	Syrupi aurantii corticis	20

M. S. Teaspoonful every two hours after meals. —Schmey.

Prickly Heat.

℞	Spiritus ætheris nitrosi	ʒi.
	Magnesii sulphatis	ʒi.
	Olei cajuputi	m.i.
	Syrupi tolutani	ʒij.
	Liquoris magnesii carbonatis	℥ij.

M. S. Teaspoonful thrice daily.

—Godhart and Starr.

Mueller's Tooth Wash.

According to the *Centralblatt für die gesammte Therapie* for October, is composed as follows:—

℞	Thymol	1 part.
	Benzoic acid	12 parts.
	Tincture of eucalyptus	60 parts.
	Alcohol	400 parts.

M S.: A teaspoonful to be diluted with half a wineglassful of water.

Severe Lumbago.

℞	Ammonii chloridi	[illegible]
	Ammonii carbonatis	[illegible]

A dose in water.

Or:

℞	Ammonii chloridi	ʒij.
	Liquoris hydrargyri perchloridi ...	℥ss.
	Spiritus chloroformi	℥ss.
	Infusi gentianæ compositi ...	ad ℥vi.

M. S. Tablespoonful [illegible] aqua.—E. Edward Rennie.

Pigmentary [illegible] of the Skin.

The *Journal de Médecine de Paris* for 25th September gives the following formula:—

℞	Corrosive sublimate	[illegible] grains.
	White sugar	[illegible] grains.
	The white of one egg	
	Lemon-juice, about	[illegible] grains.
	Distilled water	[illegible] grains.

To be applied every morning and allowed to dry on.

[illegible] ALLOWANCE OF WARRANT [illegible] HOLDING INDEPENDENT [illegible] CHARGE OF DISTRICTS.

[illegible] "Indian Medical Record."

[illegible] the principle laid down by the Indian [illegible] of recognising and supporting *all* officers—[illegible], honorary or merely officiating—in the [illegible] positions, no matter what their actual [illegible] rigidly maintained in every department of [illegible] and one hitherto applied to us, still, No. 2892 [illegible] Government of India, Finance and Commerce Department, dated Simla, 2nd July 1897, deprives Military Assistant Surgeons, appointed Civil Surgeons of Districts, of the prestige they have, and once enjoyed the right to, by ruling that only Warrant Officers of the first class can draw first class travelling allowances while Warrant Officers of the second class must travel at second class rates.

This unkind ruling particularly affects 38 members of the I. S. M. D., *all* the Warrant Officers of which are second class; but according to Articles 157 A and 1096 Civil Service Regulations, travelling allowance at first class rates is permitted to all officers who hold appointments, the maximum pay of which exceeds Rs. 500 per mensem, and except in the case of Assistant Surgeons, 2nd class, the scale of pay for Warrant Medical Officers holding civil medical charge of districts is similar to that laid down for officers of the Uncovenanted Indian Medical Service (who rank as first class for travelling allowance) and ranges from Rs. 350 to Rs. 700 per mensem. Therefore to now relegate them to second class rates of travel which apply to Warrant Medical Officers in subordinate positions is to undeservedly degrade and humiliate them.

Indians are very quick to notice and take advantage of a slight, however trivial it may be or seem, and if through insufficient travelling allowance he has to journey by rail or steamer in company with clerks, head constables and other subordinates attending the District Superintendent of Police and the Magistrate, with both of whom he has to be in daily communication, how can a Warrant Medical Officer, Civil Surgeon, maintain his position (except by direct pecuniary loss) or command the respect *necessary* to his official position?

With one exception only the Military Assistant Surgeons employed as Civil Surgeons in Bengal, Burmah, the Punjab, the N. W. P. and Central Provinces, range from 40 to 50 years of age and from 20 to 32 years service a very large portion of which has been spent as Executive Medical Officers drawing first class allowances, until the promulgation of the order of 2nd July 1897, which consigning them to second class rates and degrades them beneath the level of upper subordinates, P. W. D., over whom they have the precedents of rank, but who under Article 1103, Civil Service Regulations, are entitled to first class travelling allowance while in charge of districts and sub-divisions.

[illegible] the secret of official respect is "fuss," and a [illegible] travel as befits his rank or position if he [illegible] to always travel first class [illegible] by the class which he is most frequently [illegible] and it is simply impossible for him [illegible] respect entirely due to his position or to [illegible] district questions that official independence [illegible] and action so necessary to District Heads of [illegible].

When travelling by usual steamers [illegible] proper accommodation for Europeans or [illegible] second class passengers, who must rough it [illegible] first class passengers who are not remarkable for [illegible] so, whether he likes it or not, the Military Assistant Surgeon, Civil Surgeon, must either [illegible] Commissariat, police constables, petty clerks and [illegible] servants, or pay and travel first class, though only entitled to encampment at second class fare. The hardship is more apparent and the loss understood when it is explained that first class fare is nearly four times that of the second, and eight of the third class.

A District Medical Officer subpœnaed to give evidence in sub-divisional or town law-courts, perhaps 20 to 30 miles or more distant from his head-quarters, is entitled to *first* class expenses if he be a member of the Covenanted or Uncovenanted Indian Medical Service; but should he happen to be a Military Assistant Surgeon, he cannot claim more than the expenses allowed to a second class witness.

The nature of his duties demands frequent inspection tours; but as he must not remain away for long from head-quarters where he may be wanted at any moment, he must get over the distance between stations as quickly as possible. No such privilege for him as is extended to some of the public services, of 12 miles being sufficient for a day's march or being allowed three days to cover distances of 40 miles, which to him must mean *one* day's travel. The more rapid the progression the greater the costs of transit and the more heavy the tax at his purse, to which his family have also a rightful claim. To this add the necessity for maintaining extra and higher-paid servants for tour service, and it will be seen how grievously weighty the infliction of having to continually pay first class travelling expenses when allowed recoupment (rather part compensation) at second class rates.

In Burma, where the cost of living is 30 to 50 per cent. higher than in any part of India, the distress and humiliation caused by this reduction in the rates of travelling allowance is most keenly felt, as Burma is practically a new annexation in which the progressive medical organisation of the country entails a very severe tax on the purse and energy of the Civil Surgeon, who does not get the Burmah allowance of Rs. 100, sanctioned monthly to officers of the Forest, Survey, Telegraph, Postal and Public Works Departments, though unlike them he has to *constantly* be on the move verifying vaccination reports, controlling dispensaries, inspecting the dispensaries and sanitary arrangements of the numerous towns and villages in his district, visiting the Civil police Stations, being on various committees of investigation, attending the various subordinate courts

to give medico-legal evidence, inspecting for public buildings and medical care of officials taken ill in perhaps distant sub-divisions and townships, besides being given medical charge of Military Police Battalions, for which extra duty he does not draw any extra allowance, although he has to periodically visit the many out-posts in which these battalions are split up, and is responsible for the hospitals belonging to the several outposts.

I cannot understand what such an unjust order was ever promulgated, but I think if we laid our case before His Excellency the Viceroy for consideration, he would certainly rescind an order that curtailed our travelling allowances, and by so doing not only puts us to considerable and undeserved privations and hardships, but also makes us a cynosure in the eyes of those from whom we have the right to command respect.

Yours &c., SPERO MELIORA.

:o:

GRIEVANCES OF MILITARY HOSPITAL ASSISTANTS: A REMEDY.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—In the Field Service Manual, India, it is laid down that Eurasians, other Christians and Jews belonging to the Commissariat, Political, Telegraph, &c., when on field service, are entitled to draw European rations and to the scale of field kit allowed to Europeans. As the regulations now stand, Eurasians and Jews of the Hospital Assistant class are only allowed free native rations and the field kit authorized for natives. Perhaps it is not generally known that there are a few Eurasians and Jews in the department. I hope that this omission has only to be pointed out to be remedied.

2. When a Hospital Assistant is on the line of march from one station to another, he is not entitled to compensation for quarters, having to sleep in the office tent, neither is his family housed free or granted compensation, so he has to provide accommodation for them out of his own slender means.

3. Agreeably to A. R I Volume X, Hospital Assistants travelling on sick leave are only entitled to free passage by rail and steamer. It sometimes happens that Hospital Assistants on sick leave have to travel inland where there is no rail and the cost of conveyance has to be disbursed from their own pockets. This lately happened in connection with the Tochi Field Force, where Hospital Assistants sent on sick leave had to pay for their conveyance from Bannu to Kushalgarh—a distance of 110 miles A single seat in a tonga costs Rs. 14 which is the cheapest rate available, and fancy a Hospital Assistant on Rs 25 having to pay this amount from his own purse. There was no other alternative. In connection with this I have also to point out that Hospital Assistants, however ill or disabled, are not entitled by regulations to a sick attendant from their regiments, neither is a servant allowed a free passage when accompanying them.

4. A. R. I. Volume X rules that Hospital Assistants travelling on duty by land are allowed mileage rates at 2 annas a mile if the distance covered exceeds 20 miles a day. In some localities where conveyance is dear, this mileage rate barely suffices to meet half the expense incurred. There is no provision made for special rates of mileage for certain localities such as is conceded to Civil Hospital Assistants by Civil Service Regulations, neither are actual expenses admissible under existing Army Regulations.

5. The wife of an Eurasian drum-major, farrier major, trumpeter major, &c., is entitled to Rs. 3-8 a month as European subsistence allowance and Rs. 2-8 to each child, *vide* para. 363, A. R. I., Vol. I, Part II. As this boon is conceded in point of nationality, Eurasian Hospital Assistants have also a just claim, being part of the native army, but under the regulations in force they are not included.

6. Cots, pillows and mattresses are sanctioned for hospitals of native troops in the proportion of 5 per cent. on the strength of the regiment. Owing to the frequent transfers of Hospital Assistants and the restricted scale of 2 maunds of baggage when travelling, it is impossible to carry any furniture. If the following suggestions are approved by Government, it would cost nothing extra to the State:—

For a married man.

2 Iron cots		From the authorized complement allowed to Regimental Hospitals, vide Appendices 12 and 13, A. R I., Volume VI.
2 Pillows stuffed with coir	...	
2 Mattresses do. do.	...	
°1 Camp table	... ...	
°1 Camp chair	... ...	
° Authorized for route march, vide Appendix 18, A. R. I. Vol. VI...		
For a single man		
1 Cot iron	... ...	
1 Pillow stuffed	... ...	
1 Mattress stuffed...	...	

There are only 2 Hospital Assistants attached for duty to each regimental hospital. The average strength of a regiment is 840, thus allowing 42 cots, mattresses, &c. for each hospital.

Yours &c., AN EURASIAN HOSPITAL ASSISTANT

:o:

IN THE WRONG BOX!

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Your journal of the 1st March contained a letter from "Onlooker" about which I should like to say a few words, if you will allow me. I don't know with what view the names of a few men holding British diplomas were published, to which "Onlooker" takes exception, unless it was to bring to notice that the men in question were a credit and renown to the service to which they belong.

To come to the point, the I. S. M. D. is first and foremost a Military Service, and the Military Assistant Surgeons forming it, are, I take it, properly qualified for the work they have to do. If the diplomaed man therefore has to work with or under his seniors when the exigencies of the service require it, why then! it is quite in the fitness of things that he should do so, and there is nothing more to say about it.

It is fatuous to enquire, "if a Surgeon-Lieutenant A.M.S., or I. M. S., would serve under a Surgeon-Major I. S. M. D"? The services are quite distinct, and the nature of duties different; further, it is never intended that these superior officers should ever come to serve under commissioned officers of the local service.

On the other hand, the diplomaed Assistant Surgeon takes his position with his non-diplomaed fellows on a com-

[illegible] I don't see that we are called upon to [illegible] a man [illegible] because he is the [illegible] It is [illegible] amongst us, we [illegible] which he undoubtedly is. I don't [illegible] the State benefits by having degree or diploma holders in the subordinate ranks. The duties, both civil and military, that fall to our share are I believe, just as efficiently discharged by men who have not got diplomas from the United Kingdom.

It is popularly believed, both in and out of the service, that Military Assistant Surgeons (the pure unadulterated article as turned out from Calcutta) are badly-paid, badly-housed, and in a word badly treated. This then being the case, I think it is foolish on the face of it to add to your value by obtaining diplomas and degrees, when it is understood that your employer does not require, and what is more, is not prepared to pay for a superior article I further think that it is against the sacred tradition surrounding the profession of medicine, for highly trained and expert medical gentlemen holding classical degrees from the great Universities of England, Ireland and Scotland, to lend themselves to the performance of derogatory work such as compounding of drugs and walking round with hand-books. But here the service is not at fault nor are its administrators, but the degree holders themselves.

Is a remedy sought for this state of things? I should say, these highly qualified gentlemen should leave the service, should have left it long ago in fact, and taken up more congenial work and placed themselves beyond the risk of ever being called upon to perform undesirable duties in connection with military hospitals

Yours &c., NEMO

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THE WAR RESERVE OF MILITARY ASSISTANT SURGEONS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—On perusing this article in the *Record* of the 15th February, I was pleased to see that a fair number of Railway appointments have been reserved by Government with a view of extending the services of Military Assistant Surgeons in the civil department

This scheme gives thirty appointments, good, bad and indifferent, but yet welcomed, which, I would beg to suggest, be equally divided among the three presidencies.

Bengal and Madras at present hold out a very large number of civil appointments to their Military Assistant Surgeons, and could well afford to give their brothers in distress on the Western side half the Railway appointments.

Further, the Director General could be approached with a view to move Government to give back to the Military Assistant Surgeons of the Bombay establishment, such appointments as were held by them some years back, and from which a number of Military Assistant Surgeons were only removed owing to the emergencies of the service. Surgeon-Major-General BAINBRIDGE, I feel sure, would acquiesce and ably support this movement.

The Military Assistant Surgeons would form a most substantial war reserve and could be of universal service in times like the present, when war, pestilence, famine and internal disturbances run riot. Would the present civil Assistant Surgeons and Hospital Assistants be of much service in a war on an extensive scale?

The appointments I allude to are Wagnera, Sadra, Lakhana, Tata, Panchgani, the Deesas and Cutch gangs. There is one Civil Surgeoncy, viz., Shikarpore, and I believe this will, on the retirement of the present incumbent, go to a Civil Assistant Surgeon, and for which, I hear we are to get some outlandish dispensary (thanks). I would here also suggest the employment of Military Assistant Surgeons in the various large hospitals and districts as Assistants to the Civil Surgeons, *viz*, Ahmednugger, Ahmedabad, Belgaum, Hyderabad, Indore, Kurrachee, Rajkota and an additional 2nd class Assistant Surgeon, after his completing three years' military duty in the Jamsetjee Jeejeebhoy and the St. George Hospitals (Bombay).

Yours &c., ONE OF THE EIGHTEENEIGHTYSEVEN.

BYCULLA, *31st March 1898*.

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THE DELHI POISONING CASE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—I have read with much regret the decision of His Honor the Lieutenant-Governor in the Delhi poisoning case, in which the life of a valuable Government servant has been lost simply through the neglect of the Civil Surgeon and the compounder who dispensed the prescription. In my opinion the Hospital Assistant has been treated most unjustly I do not conceive in what way he is to blame, when he was not present at the time that the prescription was dispensed.

The compounder ought not to have dispensed the prescription. He should have waited for the Hospital Assistant. Further he had no business to alter the prescription. He should have returned it to the Civil Surgeon for correction. The poor Hospital Assistant has been punished most severely for the fault of others.

It is all very well to say that the rules regarding the custody and dispensing of the poisons have been neglected, and it might be so to some extent in this case. But what is to be done in dispensaries where there is only one medical officer. Is he to attend his out-door patients, who number sometimes two or three hundred; or make up the prescriptions for them? How is it possible that the medical officer should attend patients and dispense medicines at one and the same time.

During the last three years three such mistakes have occurred with fatal results. It is a great pity that instead of appointing two medical officers to a dispensary, the Government is punishing the poor medical officers for no fault of theirs. Every big dispensary ought to have a medical officer with a Hospital Assistant under him. And then if a prescription is dispensed wrongly, the actual man should suffer, not the man who is not present at all.

Yours &c., ASSISTANT SURGEON.

DYSMENORRHŒA AND ITS TREATMENT.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Permit me to express sincere thanks for suggesting "a light silver intrauterine stem" for the cure of dysmenorrhœa dependent on uterine stenosis. Will you please further oblige me and my poor patients by a more explicit description of this cure.

On referring to the latest edition of ARNOLD'S surgical instrument catalogue, one is simply bewildered at the number of stem pessaries advertised, while there is no means of knowing the merits and demerits of each. The silver stem not being among the number, I would request you to please let me know under what trade-name it is obtainable.

1. Is it a solid stem or a hollow one?
2. Is it to be worn continuously, even during the courses?
3. Is it to be removed for the purpose of cleaning or not.
4. Is it to be removed if it causes pain, especially during the courses?
5. While it is worn, is it advisable to use a daily vaginal wash?
6. In the case of virgins with anteflexion, the sound cannot be introduced, how am I to manage the introduction of the stem?

Trusting to be excused and deeply thanking you on behalf of my patients no less than on my own behalf.

Yours &c., B. G. ALPA.

(The silver stem referred to is obtainable from Messrs Barker Bros. of Calcutta, whose advertisement appears in this journal. The stem is a solid one. It is worn continuously. If by its presence the menstrual flow becomes too copious or is too prolonged, the stem is removed till the flow stops and it is then inserted again. It is well to remove the stem once a month or once a fortnight, to cleanse it, and then reinsert it. The stem sometimes causes pain during the first 24 or 48 hours of its insertion, after that the pain subsides and never returns. If the pain on insertion be severe, the stem should be removed for a day or two and sedatives given. The vagina should be douched daily with a warm saline solution (a saltspoonful of ordinary table salt to a quart of warm water). The stem should not be used in the case of virgins unless the symptoms are distressingly painful and are unrelieved by local and internal sedatives and other anti-spasmodic remedies. In extreme cases of this sort chloroform should be used to adjust the stem.—ED., I. M. R.)

:o:

MEDICAL BOARDS AND THEIR FOIBLES.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The following from *Truth* are facts as true of India as of England:—

"Here is another example of straining at gnats in army medical examinations. A young militia officer, a highly promising man in every respect, was recently rejected on account of an insignificant deformity, due to his having been accidentally shot in one foot. The accident was no impediment to his marching or his gait, or to his performance of any of his duties, as proved by the fact that he had been for some months attached to a line regiment at Aldershot. It was simply a question of appearances; but that was enough to settle the case with the Medical Board.

We shall hear next that some man has been rejected on account of an unduly conspicuous pimple on the nose."

"Of course it is true enough, as an Army Surgeon points out in a letter just received, that if the medical examiners pass doubtful men they are not doing their duty to the service or to the taxpayers. But the answer to that is that they frequently *do* pass doubtful men. While they are straining at gnats they are continually swallowing camels. The camels are simply the candidates who have influence at the War Office. I have particulars of two cases before me now, together with the opinion of an Army Medical Officer that neither man ever ought to have been passed. One of the two has been continually absent from duty since he joined, and has been home from a Mediterranean Station and back, at the public expense, to undergo an operation. This man was let into the army entirely through private influence. Medical Boards are habitually unfair under pressure, and they frequently make glaring mistakes even when they have a free hand."

Yours &c., SURGEON-LIEUTENANT-COLONEL.

CLINICAL ENQUIRIES.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Will you or any of the readers of the *Record* kindly inform me through its medium, to what diseases the following symptoms apply, their causes and treatment, both medicinal and dietetic?

Diarrhœa, 1 2, 3 or 4 pale liquid motions during the day, griping pains in the abdomen, nausea and retching, vomiting early in the morning and sometimes in the evening, salivation, furred tongue, poor appetite, paleness of the face, dark rings round the eyes, headache and giddiness, noises in the ear, scanty menses (sometimes attended with pain), disinclination for work, both physical and mental, hypertrophy of the uvula causing a dry cough.

The symptoms have been troubling for the last two years and a half, and have resisted all treatment.

Also if you will kindly inform me whether an operation for fistula in a patient suffering from chronic congestion of the liver is admissible.

In the *Indian Medical Record* of 1st January last, page 30, under the heading "Common Diseases of the Rectum," FOSTER in the *Journal of Medical Science* says that operation for fistula in ano should not be performed when a patient is suffering from hepatic affection; if so, what other treatment for fistula in ano and chronic congestion of the liver is indicated, when Taraxicum, Acid Nitro Hyd. Dil, Podophylin, Ammon. Chlorid, etc., have all failed.

Yours &c., AN INQUIRER.

:o:

MEDICAL ADVERTISING IN CALCUTTA.

TO THE EDITOR, "INDIAN MEDICAL RECORD"

SIR,—All right-thinking men will commend the generosity which prompted your keeping out the *names* of certain advertising medicos when the complaint about them was first sent to your journal. You did rightly however in giving them all due publicity when the complaint was made a second time. The measure you adopted has had the salutary effect, I am glad to say, of putting a stop to the advertisement altogether, for it now ceases to appear in the *Statesman*.

The following is a cutting from the *Statesman* of the 24th March, and as it is constantly appearing, perhaps you will oblige by giving the advertiser a little more *professional* prominence:—

Dr. S B. MITRA, B.S., M.B. London, has removed to 36, Wellington Street, Calcutta.

Hours of Consultation at his residence:—
From 7 to 8 A.M. (free).
From 4 to 5·30 P.M. (charged).

Yours &c., L. R. C. P. & S. Edin.

:o:

THE LEGITIMATE PREVENTION OF CONCEPTION.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Under the above heading in your issue of 16th March last, your correspondent "Anti-Malthus" speaks of a check pessary as effectually preventing conception. Will you or your correspondent kindly inform me as to the following points:—

(1). What sort of an article it is, whether it perfectly covers the os uteri, and whether it is liable to displacement during intercourse?

(2). How long can one pessary be used ordinarily?

(3). Where they can be procured and the price of a sample?

Yours &c., M. B.

RANIGUNJ.

Book Reviews & Medical Trade Notices.

OUTLINES OF RURAL HYGIENE.

By Harvey B. Bashore, M.D.

Inspector for the State Board of Health of Pennsylvania.

(Publishers: The F. A. Davis Co., 1914-16 Cherry St., Philadelphia. Extra cloth, 75 cents net.)

This handy little volume of 84 pages will be found a convenient and helpful guide in relation to those simple yet important questions that concern village hygiene in India. Though written for America, it is remarkable how appropriate the hints given in this work are for a tropical climate.

SPINAL CARIES.

By Noble Smith, F.R.C.S.

Surgeon to the City Orthopædic Hospital, London.

(Publishers: Messrs. Smith, Elder, & Co., London. Price 5s.)

This book of 153 pages contains a complete and thoroughly practical resumé of the interesting subject of spinal caries. It is excellently illustrated.

ANATOMY, PATHOLOGY AND SURGERY OF INTUSSUSCEPTION.

By D'Arcy Power, M.A., M.B., F.R.C.S.

Hunterean Professor of Pathology and Surgery at the Royal College of Surgeons of England.

(Publishers: The Erbman Publishing Co, London Price 10s. 4d.)

A very good book by a very good surgeon.

THE "VOLUNTEER."

We are glad to notice the energy and enterprise shown by *The Volunteer*. This journal was only started in February, and yet issued a supplement on the 29 h ultimo, announcing the amalgamation of the Infantry Volunteer Corps in Calcutta, while the daily papers, with one exception, did not make the announcement till the 30th. Every volunteer in India shoul l subscribe to the journal.

THE INDIAN RAILWAY SERVANTS' MANUAL.

Although we are not in the habit of reviewing books outside our profession, we make an exception of the "Manual" recently compiled by Mr. John R. Hardess, of the Bengal Central Railway Company, Ltd. a prominent Anglo-Indian. The book is excellently got up, the contents are arranged in alphabetical order, and while fulness of information is aimed at, brevity has not been lost sight of. It should prove of immense benefit not only to railway servants, but to magistrates, lawyers etc., having to deal with railway cases.

SCOTT'S EMULSION.

Scott and Bowne, Ltd., 95, Great Saffron-Hill, E C.

The value of the hypophosphites combined with cod-liver oil, especially in wasting diseases and in debilitated conditions, is well known. In addition to these constituents the above preparation contains also glycerine, which is well recognised as assisting very materially in the absorption of oils and fats. We have examined the preparation with care, and find that it fulfils all the requirements and presents all the conditions of a very satisfactory emulsion. In appearance and consistence it is not unlike cream, and under the microscope the fat globules are seen to be of perfectly regular size and uniformly distributed. In fact, the preparation microscopically examined presents the appearance of cream. So well has the oil been emulsified that even when shaken with water the fat is slow to separate, the liquid then looking like milk. The taste is decidedly unobjectionable and is pleasantly aromatic and saline. We had no difficulty in recognising the presence of the hypophosphites in an unimpaired state. The emulsion keeps well even when exposed to wide changes of temperature. Under the circumstances just described, the emulsion should prove an excellent food as well as a tonic.

A NEW ASEPTIC CABINET.

Messrs. Arnold and Sons, of West Smithfield, inform us that they have constructed a cabinet for the storing of surgical appliances at a price that will place it within the reach of every general practitioner. It is made of iron, enamelled white, with ¼-in. polished plate glass top, back, sides, and door, with two plate glass shelves with polished edges and is manufactured in two sizes—18 × 15 × 8 in., 35s; and 24 × 18 × 11 in., 55s. The cabinet should prove useful to many institutions and practitioners.

Government Medical Gazettes.

GOVERNMENT OF INDIA.

Asst Surgn. Alexander Gates, I. S M. Dept., has been transferred to the pension estab.

Brig.-Surgn.-Lieut.-Col. Alexander Crombie, M.D., I. M. S. Bengal, Surgn.-Supdt., Presy. Genl. Hosp., Calcutta, is permitted to retire from the service from the 7th April 1898.

The services of Surgn.-Capt. B. H. Deare, I. M. S., Surgn.-Capt. B. C. Oldham, I. M. S., and Surgn.-Capt. R. Bird, M.D., M.S., F.R.C.S., I. M. S., are placed permanently at the disposal of the Govt. of Bengal.

The services of Surgn.-Capt. C. Milne, I. M. S., are placed temply. at the disposal of the Govt. of N.-W. P. and Oudh.

The services of Surgn.-Maj. J. M. Cadell, M.B., I. M. S., Bengal, are replaced at the disposal of the Govt. of N. W.-P. and Oudh, from 4th Dec 1897.

Surgn.-Lieut.-Col. C. J. H. Warden, I. M. S, Bengal, Medical Store-keeper to Govt., Bengal Comd, is placed on special duty under the Govt. of India, Home Dept.

The services of Surgn.-Col. J. H. Newman, M.D., I. M. S. Bengal, Inspr. Genl. Civil Hosps., Bengal, are replaced at the disposal of the Mily. Dept.

The services of Brig.-Surgn.-Lieut.-Col. C. Little, M.D., I. M. S. Madras, Sany. Comr. Hyderabad Assigned Dists., are replaced temply. at the disposal of the Mily. Dept.

Brig.-Surgn.-Lieut.-Col. J. O'Brien, M.D. C.M., I. S. M., Bengal, Profr. of Surgery, Med. Coll., Calcutta, is granted furlough for seven months.

Surgn.-Lieut.-Col. R. D. Murray, M.B., I. M. S., Bengal, Civil Surgn., Howrah, to officiate as Profr. of Surgery, Med. Coll., Calcutta, during the absence of Brig.-Surgn.-Lieut.-Col. J. O'Brien, M.D., C.M.

BENGAL GOVERNMENT.

Surgn.-Lieut.-Col. Gordon Price, M.D., Beng l Estab. retired from the service, 16th Jany 1898.

Asst. Surgn. Sarat Chandra Sur to do supy. duty, Med. Coll. Hosp., Calcutta, from 16th Feby. 1898.

Asst Surgn. Dinno Nath Mitter, Demonstrator of Anatomy, Campbell Med School, is apptd Teacher of Anatomy in that Institution.

Asst. Surgn. Kali Nath Banerjee, Katihar Ry. Hosp., E. B. S. Ry., leave for one month.

Asst Surgn. Nilkanto Chatterjee to have tempy. med. charge Katihar Ry Hosp., E. B S. Ry.

The following Civil Hosp. Assts passed the medico-legal examination of Medical Subs. on the 31st Dec 1897 in the following order:—

Mon Mohun Mukerjee, Fuzlur Rahim, Ramendra Banerjee, Jogendra Nath Ghosal, Fariduddin, Shoshi Bhusan Bagchee

Asst. Surgn Narendra Nath Gupta to tempy. med. charge Madhubani sub-div. and dispy., Darbhanga dist

Asst. Surgn. Mathura Nath Sen, Madhubani sub-div. and dispy., leave for three months

Asst. Surgn. Purno Chunder Das Gupta, furlough for six months.

Surgn.-Maj. A. R. W. Sedgefield has been granted an extension of furlough for six months.

Miss M. M. Traill Christie, M.D., to be an Inspg. Med. Officer at Chauna Station, E. I. Ry.

Miss Durham to the Mairwa Observation Camp, B. and N. W. Ry.

PUNJAB GOVERNMENT.

Hosp. Asst. Lachman Das, Lahore Central Jail Hosp., three months' privilege leave, 3rd Feby. 1898.

Hosp. Asst. Kahn Singh *dis genl. duty* at Lahore Central Jail Hosp., from 31st Jany. to 3rd Feby. 1898.

Hosp. Asst Mirza Imdad Beg, Police Hosp. Rawalpindi, to the Nurpur Fair held in that dist., from 28th Feby. to 14th March 1898.

Hosp. Asst. Wazir Chand, Chenab Canal, 4th div., privilege leave for one month, from 6th Feby. to 4th March 1898.

Hosp. Asst. Bishamber Nath, Police and Civil Station Hosp. Delhi, is reduced to the 3rd class for two years, from 29th Jany. 1898.

Hosp. Asst. Sapaulia resumed charge of his duties on the Tochi Independent Executive charge, div., from 12th March 1898.

Hosp. Asst. Hussain Muhammad Khan, was placed on genl. duty, at the Mayo Hosp., Lahore, 28th Febv. 1898.

Hosp. Asst. T. Franklin, to the Dist. Jail Hosp., Vaziribad, from 1st March 1898.

The four months' leave granted to Hosp. Asst. Ghulam Nabi is extended by a further period of two months

Hosp Asst Wajid Ali Shah, Punjab Pnsv. Estab., is permitted to resign the service, from 6th March 1898.

CENTRAL PROVINCES GOVERNMENT.

Hosp. Asst. Narayan Vinayak, Bilaspur Poor-house, to do duty under Civil Surgn. of Bilaspur.

Hosp. Asst Abdul a Bhai, Mandhata Branch Dispy., Nimar dist., is reduced to the grade of passed medl. pupil for one year, from 8th Feby. 1898.

Hosp. Asst Ramkrishna Lal to do plague duty Nagpur City, from 26th Jany. 1898.

Hosp. Asst. Kabil Ahmed, Bagarganj Poor-house, Nagpur, to do plague duty, 8th Feby. 1898

Hosp. Asst. Saiyid Saiar, Police Hosp., Chanda, Sironcha Branch Dispy, Chanda dist.

Hosp. Asst. Kuppurajooloo Naidu, Sironcha Branch Dispy., Chanda dist., to the Police Hosp., Chanda.

Hosp. Asst. Raghunath Tukaram, Main Dispy, Chanda, held charge Police Hosp., from 28th Jany. to 18th Feby. 1898.

N.-W. P. AND OUDH GOVERNMENT.

Hosp Asst. Karim Bakhsh, from reserve duty, Benares, to Lalitpur Dispy., Jhansi.

Hosp. Asst. Jaswant Ray, Sikandrabad Dispy., from 22nd Nov. 1897.

Surgn.-Maj J. J. Pratt, Civil Surgn., from Fyzabad to Agra.

Surgn.-Maj W. G. P. Alpin, Civil Surgn., from Mirzapur to Fyzabad

Surgn.-Maj. C. C. Vald, Civil Surgn., from Hardoi to Mirzapur.

Asst. Surgn E. Dane-Broscos, plague insp., Cawnpore, to plague duty at Hastwar

Asst. Surgn. E. Dane-Broscos, on plague duty, from Hardwar to Ghazabad.

Surgn.-Capt G. Milne, to plague duty, Saharanpur dist.

Surgn.-Maj J. J. Pratt, Civil Surgn., Agra, to hold visiting med. charge of the Etawah dist.

BURMA GOVERNMENT.

Hosp Asst. Bhugwan Prasad assumed charge Reformatory School, Insein, 6th Dec. 1897.

Hosp. Asst. Ram Nath Pal assumed charge Police Hosp., Meiktila, 1st March 1898

Hosp Asst. Raj Chunder Barua to Thongwa dist., 25th Feby 1898

Hosp. Asst. Ram Narain Chopra, leave for two months in extension.

Hosp Asst. Kunti Raman Nair assumed charge Police Hosp., Pinlu (Maymyo) 23rd Febv. 1898.

Hosp Asst. Bisroo Charan Das, is entitled to the pay of the next higher grade from 26th Nov. 1898

Hosp. Asst. Nawab Khan assumed charge Outpost Hosp., Kyaukleb n, 19th Dec 1897.

Hosp. Asst. Nawab Khan assumed charge Outpost Hosp., Shwemyaungtin, Ruby Mines dist., 10th Jany. 1898

Hosp Asst Raj Chunder Barua assumed charge Civil Dispy., Kyaiklat, Thongwa dist., 1st March 1898

Hosp. Asst. Syed Abdul Khader assumed charge Civil Hosp., Thatawaddy, 28th Feby. 1898.

Hosp. Asst Syed Abdul Khader resumed charge lock-up, Thatawaddy, 28th Febv 1898

Hosp. Asst. Abdul Kareem to Pakokku dist., 28th Feb. 1898

Hosp. Asst. J. R. Mullick, [illegible] for six months.

Surgn.-Capt. E. M. Morphey, leave for one month.

Hosp. Asst. Sikh ratchan Singh is absorbed in the grade from 2nd Sept. 1897.

Hosp. Asst Muhammad Abdul Fulhan, to be Senior Hosp. Asst., from 3rd Sept

Hosp. Asst. Faiz Ahmad, to be Senior Hosp. Asst., from 17th Oct 1897.

ASSAM GOVERNMENT.

Hosp. Asst. Jamini Kanth Dhup, Kairuna Mily. Police outpost, North Lushai Hills, to Nowgong dist., to Dhing Dispy., from 20th Feby. 1898.

Surgn.-Capt. E. S Peck, Offg. Med. Officer, Left Wing, 17th B I. Dibrugarh, to hold charge Lakhimpur dist., from 12th Feby. 1898.

Hosp. Asst. Himat Deen, Tura Charitable Dispy., to the Khasi and Jaintia Hills dist., to Jowai sub-div., from 4th March 1898.

Leave for three months is granted to Hosp. Asst. Nasir Ali, North Lushai Hills, from 5th March 1898.

Hosp. Asst. Anukul Chandra Das Gupta, Sylhet dist., to Jagannathpur Dispy., from 5th March 1898.

Leave for two months is granted to Hosp. Asst. Ishan Chandra Datta, Sunamganj Dispy. and Lock-up from 9th March 1898.

Hosp. Asst. Chandra Kisor Sen to Sunamganj Dispy., and Lock-up, 9th March 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Re. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTHS.

MCNAUGHT.—On the 4th March, at Quetta, the wife of Surgn.-Capt. J G McNaught, M.D, A M.S., of twins—son and daughter.

MAIDMENT—On 8th March, at St. Thomas's Mount, the wife of Surgn.-Capt. F G. Maidment, 14th M I., of a daughter.

HUDSON.—On 16th March, at Mannargudi, Tanjore District, the wife of Henry Hudson, M R.C.S., of a daughter.

DIMMOCK—On 19th March, at St. Vincent's, Malabar Hill, the wife of Surgn.-Maj. H. Peers Dimmock, I.M.S., of a son.

MARRIAGES.

SEAL—WARR.—On 12th March, at St. Paul's Cathedral, Calcutta, Charles Edward Baldwin Seal, M R.C.S., L.R.C.P., to Jessie, second daughter of W. Warr, Tetbury, Gloucestershire.

DEARE—CROZIER—On the 15th March 1898, at Christ Church, Lucknow, by the Rev H. Menzies, Chaplain, Surgn.-Capt. B. H. Deare, I. M. S., to Ellen Lancaster Crozier.

DEATH.

EVANS.—On 21st Feb., at Fairlawn, Tadley, Hampshire, late of Bath, William Evans, M D, F R.C.S., late Madras Medical Service, aged 69 years.

NOTICES TO CORRESPONDENTS.

T. D. T. (Kamptee).—You will find all the information you need regarding Indian and British diplomas in the new edition of the "Medical Register and Directory of the Indian Empire."

H. S (Jodhpur).—Attendance at Indian Medical Colleges is fully acknowledged at the British Schools if properly attested.

H. D. (Gugranwalla).—A military medical cadet, who has passed the Entrance Examination, may at any time resign his cadetship and claim certificates for his lectures and other attendance on payment for same.

ORIGINAL ARTICLES.

PERSONAL REMINISCENCES OF SYME.

By an Honorary Pupil, DENNIS HARRIS, M.D., LL.D.,
Ex-President, American Medical Association.

In the winter of 1859 the writer, a very young medical student, began to attend the clinical teachings in the Royal Infirmary of Edinburgh. In the history of that institution and of the medical school connected therewith, it is freely admitted that there never had been a time when the fame of the faculty stood higher than it did then. SYME, SIMPSON, BENNETT, CHRISTISON, GAIRDNER, BRUCE and others constituted a teaching faculty rarely if ever equalled by any medical school. It was under those inspiring conditions that the writer first had the honor of becoming acquainted with Professor SYME, whose fame as a practical surgeon and teacher has been enlarged, certainly not diminished, by the lapse of time. It is not the purpose of this paper to review SYME'S professional career, but rather to record, for the entertainment of those who may feel an interest therein, a few personal reminiscences illustrative of his personal character and the relations which existed between the great surgeon and his humble pupil, the writer of this article.

At an early stage of my medical studies the plain matter-of-fact method of clinical teaching characteristic of Professor SYME impressed me so deeply that it became the object of my ambition to become associated with him in his work in the wards of the Royal Infirmary. In a medical school which numbered many hundreds of students from all parts of the world, many of them sons, friends, or pupils of former students of Professor SYME, it can be readily understood that it was no easy matter for a youth whose early years had been to a large extent spent, as mine had been, in the backwoods of Canada, and who was devoid of any special association of a professional nature with Edinburgh people, to obtain favorable consideration for appointment of any kind in the Royal Infirmary. Perseverance and determination, however, overcame many difficulties, and in this instance, after several disappointments, I succeeded in gaining my object. It so happened that in the summer of 1859 a fellow student, who had the privilege of a position on Professor SYME'S staff, desiring to avail himself of a few weeks' holiday, suggested the feasibility of my 'filling' temporarily the position which he occupied. Consequently once again, a request was made to the Professor that the writer should be accorded the privilege of taking the position held by his friend during the latter's absence. On this occasion I had the advantage of the cordial support of the Professor's house surgeon, Dr. JOSEPH BELL, to whom I have always felt sincerely grateful for innumerable acts of kindness during my student days and since. With characteristic brevity and decisiveness, the Professor quietly remarked in response to my petition, "Very well, sir." The next day found the writer in line with the other members of the Professor's staff, joyfully assisting in the regular work of the Royal Infirmary. This work consisted of the examination of *new*, the dressing and treatment of *old*, patients, and assisting at the performance of operations in the amphitheater, etc. Before many days had passed in this work, a case occurred which elicited from Professor SYME a direct test question to his staff, as follows: A man had received a blow on the head, cutting through the scalp and laying bare the bones of the skull to a slight extent. After some days this patient developed alarming symptoms, namely, rapid pulse, severe headache, vomiting, delirium, etc. (The clinical thermometer had not then been invented.) Having looked him over, the Professor said to those about him: "What do you think is the matter with this man?" After a few moments of silence on the part of all present, the writer ventured the opinion that it was a dural matral abscess, and the Professor very pleasantly replied, "Quite right, sir." The next question was: "What do you think the result will be?" to which the reply was made, "Death." The Professor expressed his approval of the diagnosis and prognosis, and ulterior facts fully vindicated both. This incident, simple as it was, has always been a very pleasant memory to me.

The limit of my appointment on the staff was three months, and the time soon passed away. With feelings of intense regret and anxiety the flight of time was noted, and the sad fact appreciated that my association with work so congenial was soon to cease. As the time approached, however, I was in one way or another made bold enough to hope that an exception might be made in my case and an arrangement arrived at by which I might continue on the staff during the ensuing winter session of six months. With a feeling of considerable trepidation I ventured one morning to invade the sanctity of Professor SYME'S private professional head-quarters, at No. 2 Rutland Street, where I made known to him my ambition to continue in the service as a member of his staff for six months longer. His reply was: "*I will be most happy, sir; you have been very active and useful to us.*" I doubt whether any soldier seeing his name honorably mentioned in special despatches ever felt greater pride and satisfaction than I did when I heard those few simple words, coming as they did from a man who never condescended

[illegible] boasting of any kind, a man who was universally known as "a man of few words" and one whose every [illegible] understood as saying exactly what he meant and meaning exactly what he said. Within a few days after this interview I found myself occupying a very responsible and important position on the Professor's staff, a position which I succeeded in retaining for a period of eighteen successive months; during which time it so happened that many of the greatest and most famous of all SYME'S achievements as an operating surgeon were performed His staff of assistants met with him every day in his consulting-room at the Royal Infirmary, between the hours of twelve noon and 2 P.M. In our work there many visiting surgeons were delighted to participate, and the Professor was always willing to listen respectfully to the opinions of every one present, even his youngest assistant, whenever the conditions seemed favorable for such an interchange of views. Moreover, it always afforded him pleasure and made his face light up in a most expressive manner when an original or reasonable diagnostic opinion was expressed, even though it might not ultimately prove to be correct As an illustration of this the following incident is re-called A patient had a large tumor in the gluteal region, which presented peculiar and puzzling features. All eyes were fixed upon the sufferer and his tumor, as well as on the Professor as he examined it Suddenly one member of his staff, namely, Mr THOMAS ANNANDALE, who since then has for many years filled with the greatest ability and success the chair then occupied by Professor SYME, placed his hand on the tumor in a peculiarly suggestive manner, and the Professor, looking up at him, said, "What did you expect to find there—pulsation?" Mr. ANNANDALE replied, "I thought I might, sir, and I think I have" The Professor immediately made the same manipulation and with the same result, and to this day I am able to recall with sincere pleasure the expression of exultation which passed over the great surgeon's face when he found that his youthful assistant had made a brilliant diagnosis in a case of especial difficulty and importance. The same method of examination has many times been resorted to by the writer with advantage, and has been taught by him to several generations of students The case proved to be one of gluteal aneurism, for the relief of which Professor SYME a few weeks afterwards performed one of his greatest and most "historical" surgical feats. It so happened that the writer had the honor of being a humble but active assistant on the memorable occasion.

Surely it will not be considered improper or in bad taste for the humble assistant in recalling these personal reminiscences to place on record here a recent episode associated with this far-famed case. At the meeting of the British Medical Association in Montreal a few weeks ago, the address in surgery was delivered by Mr MITCHELL BANKS, the eminent surgeon of Liverpool His address made a very profound and favorable impression upon all who heard it, and certainly on no one more so than his old classmate—myself. At the conclusion of his eloquent oration, every word of which was listened to with the greatest pleasure, I ventured to step upon the platform and, holding out my hand, congratulated him upon the eloquence and beauty of his address. At the conclusion [illegible] I [illegible] were [illegible] pressed his delight at [illegible] mate a friend of myself; [illegible] to the group of members [illegible] around us: "If I live to be a hundred years old, I can never forget the day when Professor SYME performed his great operation for gluteal aneurism. Among other things I recollect that at his right hand, and actively assisting him, there stood a smooth-faced, fair-complexioned, enthusiastic young man, with a great mass of auburn hair on his head." The writer quietly bent that identical head down, and said, "Well, sir, please just look at it now"—all the auburn and most of the hair were gone. Such was the reunion of two of Professor SYME'S pupils after a separation of more than thirty-five years.

Professor SYME has always had the reputation of possessing an austere, reserved manner, and in the opinion of those who knew him best, this impression will be pronounced well founded. At the same time it is no less true that he possessed the faculty of making himself very agreeable to all such as had any claim to his kindly recognition To the venerable nurses, such as Mrs. LAMBERT and Mrs PORTER, who served in his wards with the utmost fidelity and industry for half a century or thereabouts, nothing could exceed the kindness and geniality of his manner When either one of these devoted characters happened to be indisposed, he was always ready and willing to give them his kindest and best care. Whenever an opportunity occurred, he was proud to call out and show forth the surgical intuitions and marvellous diagnostic power of these venerable women, who were not "trained nurses," such as we have to day, but were educated in the school of experience to a degree which, so far as my observation goes, made them equal in most respects to the best "trained nurses" I have ever known. For example, a young man, pale and emaciated, appeared in the Professor's waiting-room one day with a fluctuating swelling just above his right ankle After careful examination by all present, various opinions having been expressed as to the diagnosis, the Professor, looking around to Mrs LAMBERT, said, "Mrs. LAMBERT, what do you think?" "I think it is a psoas abscess," was her modest but confident response; and so it proved to be, the autopsy a few weeks afterwards fully corroborating her diagnosis. Having made the above warm reference to this venerable nurse, who had grown old in the service, I feel justified in adding a few words more in regard to her. In so doing I feel certain that of all the pupils who studied surgery under Professor SYME during Mrs. LAMBERT'S long service, there does not survive one who will not feel gratified by any kindly or appreciative testimony which may be recorded in her honor Mrs. LAMBERT had her own suite of plain but comfortable rooms in the Royal Infirmary. One feature of her house-keeping, upon which she especially prided herself, was her potato soup, or, as she called it in the Edinburgh vernacular, "tattie soup." When any member of Professor SYME'S staff happened to be delayed by his duties beyond the regular lunch hour, Mrs. LAMBERT was ever on the alert with an offer of a plate of this soup,

[illegible] "[illegible]" [illegible] that I [illegible] "[illegible]" [illegible] At all events, the memory of the generous kindness of the good old [illegible] never [illegible] and never can fade from my memory. Mrs. LAMBERT had one son, a sailor boy, who in the course of a cruise on his ship found himself in the harbor of Melbourne, Australia. Here he was taken ill with typhoid fever. The physician who attended him insisted that he must be sent to the hospital until able to travel. The captain of the vessel declared that such an arrangement was impossible, and that the poor fellow would have to take his chances of being buried at sea. The doctor, loath to abandon his patient to what he regarded as certain death, proceed to make further inquiry about him. On ascertaining exactly who the boy was, namely, the son of the kind-hearted old nurse who had so often cheered his own young heart with her prodigious plates of "tattie soup" when he was a struggling student in the Royal Infirmary, the doctor hesitated no longer, but, taking all the responsibility and assuming all expense, had the sailor lad sent to the hospital, where, after many weeks of careful treatment, recovery took place, after which he had him sent comfortably and safely back to his good old mother "Cast thy bread upon the waters for thou shalt find it after many days."

My midsummer vacations were spent for the most part in Edinburgh SYME's wards, the *post mortem* theater and the University dissecting-room afforded me abundant facilities for the most profitable kinds of study and work. I always enjoyed free access to the dissecting-room through the kindness of the then head demonstrator, now the eminent scientist and first of living anatomists, Sir WILLIAM TURNER Brief but most enjoyable visits, however, were occasionally made to the ancestral home of my family, on the Isle of Mull, on the west coast My kind and affectionate host, a very near relative, on the occasion of my first visit when a freshman medical student, dubbed me "The Professor," and, as usually happens with nicknames, mine very soon became the common property of every tenant, every employee, and every guest of the hospitable old place, and to this day when I return, as I have occasionally done in later years, "The Professor" is my universal designation in perpetuation of a good-humored joke perpetrated forty years ago. The fact of my having been for many years entitled to that (*more or less*) honorable appellation has no possible association with the pet name by which I am still remembered by those loyal and kind-hearted old friends. This leads me to record here an anecdote involving my relations with Professor SYME. During one of my visits to the Highlands, after Mr SYME and myself had become fairly well acquainted with each other, one of the foremen on my cousin's estate came to him one morning to inform him that a high-bred Aryshire bull was ill and evidently suffering great pain. No one had anything to suggest for the poor animal's relief. At last one of the men said, "Don't you think, sir, that we might consult 'The Professor?'" The laird smiled but made no reply. After breakfast, however, he asked me to observe the animal as he walked about in front of the windows of the breakfast-room and give my opinion as to the ailment. The appearance and actions of the unfortunate animal seemed to be quite characteristic, and I expressed the confident belief that it was a case of calculus, causing serious obstruction of the urethra; and I was anxious to operate. My cousin, the Laird, at once ordered the men to have the patient placed in a suitable posture and held safely. Then with a common scalpel and a pair of ordinary dressing forceps from my pocket case, I had the satisfaction of cutting down and removing the obstruction, which proved to be a rough oxalate of lime calculus, the size of a good large marble. The present professor of clinical surgery in Edinburgh, Dr. THOMAS ANNANDALE, was at the time Professor SYME's house surgeon, and being a warm friend of mine, I naturally wrote him a full account of my operation. not only so, but I also sent the specimen to him It never occurred to me that the affair would go any further, but in this I was mistaken. Without informing me of his action Mr ANNANDALE showed my letter and the specimen to "The Master," and in that way laid the foundation for a somewhat embarrassing surprise for myself and others.

On my reunion with Professor SYME, his staff and visitors, of whom several were distinguished foreigners, the Professor greeted me as I entered the consulting-room with a show of cordiality which surprised all present, and none more so than myself Then looking round the room and waving his hand in a very solemn manner towards me, in a most-matter-of-fact tone of voice he said, "An eminent lithotomist" He made no further reference to the matter on that occasion, nor did he offer any explanation, at least in my presence. Nevertheless, I heard of the episode from a good many quarters afterwards, more particularly as to the look of astonishment and the depth of the carmine color which overspread the countenance of the "*eminent lithotomist* Notwithstanding Professor SYME's well-known love of humor and thorough geniality of character, such a practical joke, especially at such a time and in such company, was an event of the greatest rarity.

No man could possibly be more temperate and abstemious in his habits than Professor SYME all through his life Nevertheless he had a distinct feeling of dislike for that class of ostentatious hypocrites known as blatant teetotalers and temperance preachers. I very well remember the case of a boy of not more than twelve years of age who appeared at the *clinique* suffering from a peculiarly loathsome form of disease. The Professor, with an expression of infinite disgust on his face, asked the youthful trangressor the question, "Are you a teetotaler?" to which the unctuous little sycophant replied: "Oh, yes, sir." "I thought so," quietly remarked the Professor, with an expressive twinkle in his eye, and then proceeded to give directions for the management of the case. At his own dinner table, on my declining to be helped to champagne, the Professor, with an air of comical consternation, exclaimed, "Mr MACLEAN, I hope you are not a teetotaler!" I replied promptly in the negative, and I told the truth.

My first professional fee came in the following manner: During the Christmas holidays one day the Professor said, "MR. MACLEAN, what are you going to do this afternoon?" Of course it was quite evident that there was something special in his head, and I promptly replied,

"Nothing in particular." Then he said, "Well, I promised to be at New Haven (a suburb of Edinburgh) at three o'clock this afternoon to meet Dr. FINLAY in consultation. Now I cannot very well go, but if you will take my place, you will first of all see an interesting case of disease of the hip-joint in a young boy: in the second place you will see his mother, a charming woman; and in the third place, you will get a very good fee." I need hardly say that the appointment was duly kept. What was required for the patient was carefully done. I made the pleasant acquaintance of his mother, and the no less agreeable acquaintance of the venerable doctor in charge; moreover, I got the fee, with a part of which I purchased the picture, a reproduction of which appears on the first page of this paper. But over and above all that the expression of confidence and kindly feeling implied in this action of the great surgeon acted as a genuine stimulus to my ambition, the effect of which was long lived.

A patient in the Royal Infirmary, for whom it was my duty to perform minor surgical services, presented me one New Year's day with a fine specimen of a Skye terrier pup as an expression of gratitude. Professor SYME happened to come suddenly and unexpectedly upon me one day while sitting on the door-step of the Royal Infirmary after business hours, along with one or two of the old nurses, playing with my pup. In a good-natured, pleasant manner he said, "Mr. MACLEAN, is that your dog?" I had no choice but to plead guilty. He at once assumed an air of mock severity and looking straight at me said, "Then permit me to inform you that there are just three steps to ruin for a young man first, a *dog*; second, a *pipe*; and third, a *woman*." The experience of my life from that day to this have, I must say, failed to fully justify the Professor's oracular utterance. I have rarely seen the day that I have not been the happy possessor of one or more dogs, and surely have had no occasion to blame them for any misfortunes which may have befallen me. As for the pipe, I have never availed myself of its comforting and insidious influences; and so far as the third, and last, "step" is concerned, I have only to declare, as a matter of actual truth and simple justice, that from my cradle to the present time women have ever been my greatest comfort, blessing and inspiration, in spite of an occasional attack of heartache which after all proved to be quite evanescent.

Time and space would fail me to set down in detail the many occasions when striking episodes occurred in the matter of operative experiences in which I was an eye-witness and more or less of an active participant with Professor SYME. The subject is a fascinating and inspiriting one and tends to awaken in my mind memories of the most precious nature. I will only venture to quote a single example here. One winter afternoon Professor SYME asked me to accompany him, along with a former house surgeon of the Royal Infirmary, Dr. GOURLAY, to the ancient town of Kirkcaldy. The operation was the removal of a tumor situated deeply beneath the articulation of the lower jaw. It was not a small tumor, and it was not well defined, and of course was closely related to structures of critical importance. Before the operation had proceeded very far, or, in other words, "in the middle of it," with very slight premonition a terrific thunderstorm broke over the scene and [illegible] almost totally eclipsed. The [illegible] ed was a small and peculiar [illegible] became exceedingly embarrassing. [illegible] Egyptian darkness the [illegible] wounded; the hemorrhage from the [illegible] cavity was rapid, and taking all the circumstances into consideration, the occasion was one well calculated to induce embarrassment and anxiety on the part of all present, especially the operator. The calm, deliberate and efficient action of the Professor in this emergency could hardly be done full justice to by any words at my disposal. I can only declare that in the many urgent emergencies which have occurred in my own experience as an operator during the many years that have elapsed from that day to this, the stimulating and tonic effect of the recollections indelibly impressed upon my mind on that occasion have induced the most sincere feelings of gratitude and admiration. Professor SYME was upwards of sixty-four years old at the time this operation was performed.

The present Lord LISTER became, when still a young and comparatively unknown surgeon, the son-in-law of Professor SYME. All the medical students of Edinburgh of my time will remember Mr. JOSEPH LISTER as an active and enthusiastic teacher and student of surgery.

The manner in which he has fulfilled the most sanguine and enthusiastic predictions as to his future is now a matter of universal knowledge. His father-in-law was one of the most confident and enthusiastic prophets of his future greatness. Not long after Mr. LISTER had been elected to the Chair of Surgery in the University of Glasgow, the following episode occurred, which is very pleasantly impressed upon the writer's memory:

Among the many marvellously interesting and striking cases of aneurism which fell to Professor SYME's lot during the time of my association with him—cases which may be safely regarded as constituting the crowning glory of his great career as an operating surgeon—was the following: A shipwrecked sailor, making a desperate leap for his life, had the misfortune to rupture the common iliac artery in the neighbourhood of its bifurcation, giving rise to an enormous pulsating tumor. Emboldened by his recent brilliant successes in the treatment of aneurism, Professor SYME, after careful consideration, decided to make a desperate effort to save, by operation, the life of this unfortunate man. When the time for the operation was near at hand, he wrote to Professor LISTER, informing him of his proposed bold and critical undertaking and inviting him to be present, and as the sailors say, "to stand by." Professor LISTER arrived in Edinburgh the day before the operation and brought with him an instrument which, as a result of his reflections about the case, he had been led to invent—an instrument now familiarly known as LISTER'S aortic compresser. The writer enjoyed the privilege of being present when Professor LISTER presented to his distinguished father-in-law the instrument in question. Professor SYME looked at the instrument and, notwithstanding his great regard for his brilliant and promising son-in-law, the naturally conservative turn of his mind asserted itself and expressions, facial and verbal, of a decidedly skeptical character are

very distinctly reported. The operation took place, and of course was conducted with the utmost coolness and care. Professor SYME laid open the cavity of the enormous aneurism; hemorrhage, such as it has not often been my fortune to witness, was encountered, and the fact is that had it not been for Mr. LISTER'S newly devised instrument, by which, as he had hoped and intended, the circulation through the abdominal aorta was perfectly controlled, Professor SYME could not have escaped the great misfortune of losing his patient on the table from hemorrhage. As it turned out, not only was that catastrophe avoided, but the ligature of the *common*, *internal*, and *external* iliac arteries had the effect of saving the patient's life. It has been my privilege to place on record in the medical journals several cases in which by the use of this very instrument the lives of my patients have been saved, which otherwise would have been quite impossible.

An eminent American surgeon, visiting Edinburgh and enjoying the privilege of association with Professor SYME in his hospital work, obtained a photograph of the Professor, and laying it before him, in the presence of some of my classmates and myself, requested the favor of the autograph of the original. Without a moment's hesitation the simple words "JAMES SYME" were written on the lower margin of the counterfeit presentment. The distinguished American then said, "Now add, 'Professor, Clinical Surgery in the University of Edinburgh, etc., etc.'" This latter request was met with a quiet but dignified refusal, and when the question 'Why not?' was asked, the response came promptly, "That is supposed to be generally known."

The following anecdote has been frequently quoted by members of the profession intimately associated with Professor SYME. The absolute accuracy of all the details is not fully vouched for by the present writer, at the same time it seems sufficiently probable and characteristic to justify its insertion here. During a meeting of the British Medical Association in Edinburgh, it so happened that Professor SYME performed an operation for the removal of the entire tongue for cancer, one of the many surgical procedures in regard to which SYME'S claims to be a pioneer are beyond question. He had performed the same operation once or twice before with but indifferent success, and, in certain quarters, unkind criticisms had been indulged in, and even the justifiability of the operation called in question. On this occasion a large number of the members of the British Medical Association attending the meeting in Edinburgh made it a point to be present at the operation, which all eye-witnesses agree in declaring to have been performed with the utmost coolness and deliberation, the presence of the distinguished strangers having no appreciable effect upon the operator's conduct or manner. After the patient had been removed to his bed in the ward, the audience gave vent to their feelings of surgical admiration and enthusiasm by long and loud applause. The Professor calmly turned around, as he was drying his hands, and pointed to a notice on the wall, requesting order and silence in the amphitheater. This facetious act elicited a fresh burst of applause. He then stepped forward, with the evident intention of saying something, and instantaneously every mouth closed, every breath was held, every ear was eager to catch the slightest sound which dropped from his lips. Rumor has it that the following was what they heard: "Gentlemen, permit me to assure you that I have reached an age and a position in the profession at which I care neither for censure nor commendation;" and he bowed politely and walked out of the amphitheater. This was the only reply which he ever condescended to tender to his carping critics so far as the operation for cancer of the tongue was concerned.

The accompanying illustration represents Minto House, a building familiar to all Edinburgh people and almost worshipped as a shrine by all students and admirers of JAMES SYME. It was in that comparatively humble building that he established an institution of surgical learning which constituted a challenge and proved to be a successful rival to the Royal Infirmary and all surgical teaching institutions of Scotland. Finding himself, from one cause or another, excluded from hospital facilities, SYME, a young man with comparatively undeveloped fame and meager financial resources, established an opposition school to the great and long-famed hospital, the Royal Infirmary of Edinburgh, and that too at a time when the immortal LISTON, with every advantage of fame, of wealth, of place, and of power, reigned supreme in the medical world of Great Britain. No student, who like myself was intimately associated with Professor SYME in his later days of supreme fame and power, can fail to remember the quiet, dignified expression of pride with which he referred to his experience and achievements at Minto House.

Professor SYME'S faculty of recollecting instantaneously the names and faces of former patients was quite remarkable. Two instances of many which came under my own observation I think of sufficient interest in more than one respect to mention here. The first is that of his patient PENMAN, whose likeness before operation is here reproduced (copied from the collection of SYME'S works for which the writer is responsible). This most remarkable tumor of the inferior maxilla was removed along with the entire bone in the year 1828, when the patient was little more than a boy and the surgeon only twenty-seven years old. The inexpressible blessing of anesthetics had not at that time been discovered. The operation proved a complete and permanent success. After the lapse of thirty-four years, this patient, having in the

insignificant for obvious reasons cultivated a long and full beard, walked one morning into the Professor's consulting-room, and without saying a word held out his hand to his benefactor of long ago. The writer and all present were then treated to the agreeable surprise of seeing Mr. Syme's instantaneous recollection of his former patient whose case had no doubt through all the intervening years been a matter of justifiable pride and gratification to him.

wrote the following letter to [illegible] in explanation of his views on [illegible]

My own feeling is opposed to [illegible] either country visits or operations [illegible] dered in the same, however much [illegible] patients may differ. The tradesman may [illegible] commodities and limit their distribution to [illegible] able to comply with the terms of sale. But any man who practises physic or surgery as a profession should endeavour to render the means of relief which he possesses to the [illegible]

All present were no less surprised than pleased to see how little the operation had injured either his appearance or his articulation. When one regards this great case in all its features, does it not suggest the suspicion that if it were not for the consoling and supporting aid furnished to both surgeon and patient by anesthetics, nearly, if not quite, seventy-five per cent. of the bravo and brilliant surgeons of to-day would be devoting their energies and their bravery to other and less trying fields of usefulness.

As an example of Syme's ability in the matter of recalling former cases which we have space to mention here is the following: A gentleman of immortal fame in the noblest fields of British literature had been operated upon by Professor Syme for a somewhat uncommon form of "*anal*" affection and had made a good recovery. After the lapse of several years he decided that it would be wise to again consult the Professor, whom he had not met since the successful conclusion of his former treatment.

The patient, upon entering the Professor's private room, was immediately and without ceremony requested to remove some portion of his apparel and to recline over the examination couch. The Professor, although not entirely successful in recalling his patient's *face* during the moments which elapsed previous to the actual commencement of the examination, no sooner cast his eye over the field of operation than he instantly recalled the name and identity of the individual and apologised for having failed to remember fully at first sight so distinguished a patient.

About the time that my immediate connection with Syme and all the pleasant associations pertaining thereto ceased, a keen discussion arose in Great Britain on the subject of professional fees. Mr. Syme, whose liberal notions and strict professional integrity were everywhere known, having been appealed to on this point, possible available to those who require them, and with this view place the liberality of the rich to the credit of the poor.

The following note unquestionably testifies in the clearest manner to Mr Syme's consistency in regard to this important side of a medical man's conduct and rule of life. I take pleasure in quoting it here for more reasons than one: First, as bearing testimony to his moral courage and accurate business sense of fair play; second, as a characteristic example of his terse, forcible and elegant style of literary effort; third, for personal reasons which will obviously appear after the note in question has been read:

Mr. Syme presents his compliments to Lord —— and begs to say, from the enclosure which Lady —— had the kindness to give him on Saturday, he fears there may have been some misapprehension with regard to the professional service which he rendered your lordship. The operation, though undertaken without delay or ceremony, was one of the most important in surgery, directly affecting the life of the patient, and seriously involving the character of the operator. Mr. Syme ventures to hope that Lord —— will do him the justice of attributing this communication to its true motive, which is simply to prevent his lordship or himself from remaining in a false position.

(Signed) James Syme.

I have no doubt that the treatment in this rather embarrassing case proved successful. At all events, in the single case in which I tested it, nothing could have been more satisfactory. A very rich man sent me a fee which I deemed inadequate and altogether out of proportion to the value of the service rendered. In acknowledging the receipt of his remittance I ventured to quote Professor Syme's note to his lordly patient and politely asked if he did not think that an ingenious and gentlemanly method of placing a grateful and appreciative patient and his doctor right in their financial relations to each other. He

[illegible] with great good humor and encouraged me [illegible] If any of my former pupils or [illegible] should ever have occasion to fall back upon this [illegible], it will be only one instance among [illegible] in which through my humble agency young members of the profession have obtained valuable lessons and useful inspirations from a great man who was dead before many of them were born. "*And he being dead yet speaketh.*"

Few men in any department of science, medicine or religion, have been more resolute and careful in the matter of maintaining and defending unchanged the principles and doctrines promulgated by themselves than Professor SYME. Consequently it will be readily understood how great an honor it seemed for a young man, at or about the age of twenty-five, to be entrusted with the responsible duty of collecting and publishing, to the best of his ability, the writings which Professor SYME had contributed to medical literature during his long life; especially when *carte blanche* was freely granted to the youthful editor to make his own selections and to use his own judgment as to what should be included and what should be excluded, what should be published just as it originally appeared, and what should be changed. The following extract from Professor SYME'S letter of authorization to his former pupil, the writer of the present article, demonstrates and gives full expression to the kindly confidence reposed in him by his venerable teacher. "As to your proposal of republication in America, I have long desired that what I have written should be known in a pure form, and will therefore feel much obliged by your undertaking the task." That the effort, undertaken in the spirit of loving enthusiasm, was not in any sense a failure we have the voluntary testimony of so independent and efficient a critic as the late Professor SAMUEL D. GROSS, of Philadelphia, who, in his autobiography, refers to my edition of SYME'S surgical works in the following terms:

> As a writer, Mr. SYME was felicitous, his thoughts being always well chosen, and conveyed in a clear, terse, vigorous style. He is best known by his "Principles of Surgery," which was published soon after his entrance into the profession, and which was enlarged and improved in each succeeding edition. The best edition of his works, embracing a complete collection of his monographs, was issued by J. B. LIPPINCOTT & Co., of Philadelphia, in 1866, under the editorial supervision of a former pupil, Dr. DONALD MACLEAN, the present Professor of Surgery at Ann Arbor University, Michigan.

In the preface to that edition I had ventured to quote from the author of "Rab and his Friends," Dr. JOHN BROWN, the following authentic reference to Professor SYME'S character:

> Everywhere, personally, professionally and publicly, reality is his aim and attainment. He is one of the men—they are all too few—who desire to be on the side of truth rather than to have truth on their side, and whose personal and private worth are always better understood than expressed. It has been happily said of him that he never wastes a word, a drop of ink, as a drop of blood, and his is the strongest, exactest, truest, immediatest and safest intellect dedicated by its possessor to the surgical cure of mankind I have ever yet met with. He will, I firmly believe, leave an inheritance of good done and mischief destroyed, of truth in theory and practice established, and of error [illegible] the more exposed and ended, such as no one since JOHN HUNTER has been gifted to bequeath to his fellow men. As an instrument for discovering truth I have never seen his completeness equalled. His mental eye is achromatic and adjusts into the judging mind a pure, white light, and records an undisturbed, uncolored image, undiminished and unmingled in its passage, and he has the moral power, courage and conscience to use and devote such an inestimable instrument aright.

In regard to this quotation Professor SYME, in a private letter to me, said: "Your preface seems to me to be a little '*loud*,' but I dare say it will do for your side of the Atlantic."

Early in the year 1872, I had the pleasure of reading in the Edinburgh papers an exceedingly able and witty speech by Professor SYME on the subject of changing the site of the Royal Infirmary. This was a question with regard to which his own mind had undergone within a very brief period a perfect revolution; having opposed, with all the vigor and intensity of his nature, the whole proposition of "removal," it came to pass that he changed his mind and advocated the opposite plan with equal force and spirit. One week after reading this able statement of his latest views on the subject, the result of which is the magnificent institution now known as the Royal Infirmary and the new University of Edinburgh, I was grieved by information of his having been stricken with paralysis. My mind was at once made up to lose no time in making a pilgrimage to Edinburgh, in the hope that I might once more have the privilege of speaking to him face to face and shaking hands with him; consequently I presented myself one morning at his consulting-room in Shandwick Place, Edinburgh, where he received me with the utmost cordiality. The change produced in him by his attack of cerebral hæmorrhage was very sad to behold. His whole condition, physical and mental, was very much changed, but still characteristic words of advice and encouragement were kindly impressed upon me. I was at the time suffering from a peculiarly severe personal affliction, with regard to which he had in previous communications expressed his utmost sympathy, but which in my interview with him I felt for his sake impelled to avoid all reference to. As we parted and I had shaken hands with him for the last time and was turning away from his door, he seized hold of the collar of my coat, and with a quick, nervous movement, turning me rapidly around so that he could look into my face, he said: "Be sure and keep your eye on LISTER and his antiseptic investigations; I feel sure that there is something in them. *And remember, sir, look forwards, do not look backwards!*" These were the last words I had the privilege of hearing from his lips, and they have served me a useful purpose in more than one trying position, and they will be remembered so long as my memory lasts with emotions of most sincere gratitude and love.

PUERPERAL ECLAMPSIA.

By KEDARNATH DASS, M.D. (Madras),

Medical and Surgical Registrar to the Medical College Hospital, Calcutta, formerly Resident Goodeve Scholar, Eden Hospital, Calcutta.

DURING his tenure as Resident Goodeve Scholar at the Eden Hospital, Calcutta, the author met with 14 cases of puerperal eclampsia in one year (March 1891 to March 1892) and having 6 more such cases in the course of private practise, he studied all the available literature on the subject which so impressed him with the greater prevalence and higher mortality of this disease in Calcutta as compared with the statistics of America and Europe, that he verily believed that the collection of a large number of these cases would materially assist the study of puerperal eclampsia in its various phases.

With this aim in view he obtained sanction to analyse the records of 10,728 deliveries that took place in the Medical College Hospital and the Eden Hospital from 1848 up to August 1894, and noted that in 4,291 confinements of European, Eurasian, Jewish and Armenian women and in 6,437 deliveries of Hindu, Mahomedan and Native Christian females there were 15 and 86 cases respectively of eclampsia, or a ratio of 1 case of eclampsia to 286 and 75 deliveries respectively.

It will not be without interest to study the subjoined analysis of these 101 cases —

Analysis of 101 cases of eclampsia recorded in the Medical College Hospital, and Eden Hospital, Calcutta, between 1848 and 1894.

			Hindus.	Mahomedans.	Native Christians.	Europeans, Eurasians, and East Indians.	Jews and Armenians.	Total.
Age of patient at delivery	From 12 to 15 years		12	4	...	...	...	16
	16 "		7	1	1	...	...	9
	17 "		5	2	1	2	1	11
	18 "		5	...	...	...	...	5
	19 "		2	1	...	...	...	3
	20 "		14	...	1	1	...	16
	From 21 to 25 "		13	1	1	6	1	22
	26 to 30 "		9	1	...	2	1	13
	31 to 40 "		2	...	2	1	...	5
	41 to 45 "		...	1	...	...	...	1
	Total		69	11	6	12	3	101
Number of pregnancies.	1st		60	9	5	8	2	84
	2nd		5	...	...	2	1	8
	3rd		2	1	...	...	...	3
	4th		1	...	...	...	...	1
	5th		1	...	...	1	...	2
	13th		...	...	1	1	..	2
	15th		...	1	...	...	...	1
Labor.	Full Term	Primipara	42	7	4	4	1	58
		Multipara	7	1	1	3	...	11
		Total ...	49	8	5	6	1	69
	Premature	Primipara	18	2	1	4	1	26
		Multipara	2	1	...	2	1	6
		Total ...	20	3	1	6	2	32

Analysis of 101 cases of eclampsia recorded in the Medical College Hospital, and Eden Hospital, Calcutta, between 1848 and 1894.

			Hindus.	Mahomedans.	Native Christians.	Europeans, Eurasians, and East Indians.	Jews and Armenians.	Total.
Presentation	Head	P.* ...	59	9	4	8	2	82
		M.† ...	8	2	1	4	1	16
		T ‡ ...	67	11	5	12	3	98
	Breech	P ...	1	...	1	...	..	2
		M. ...	1	...	...	...	...	1
		T. ...	2	...	1	...	...	3
Fœtus ...	Living	P. ...	24	5	2	5	1	37
		M. ...	3	1	...	3	...	7
		T ..	27	6	2	8	1	44
	Dead	P. ...	36	4	3	3	1	47
		M ...	6	1	1	1	1	10
		T. ...	42	5	4	4	2	57
Mode of delivery.	Undelivered	P. ...	2	...	1	...	...	3
		M. ...	...	1	..	...	...	1
		T. ...	2	1	1	...	...	4
	Natural ...	P. ...	16	3	1	6	...	26
		M. ...	4	...	...	3	1	8
		T ...	20	3	1	9	1	34
	Induced ...	P ..	11	1	...	...	1	3
		M. ...	1	...	...	...	...	1
		T. ...	2	1	...	...	1	4
	Twin	P ...	3	1	1	...	..	5
		M. ...	...	...	...	...	...	...
		T. ...	3	1	1	...	...	5
	Forceps	P. ...	29	4	1	1	1	36
		M. ...	3	1	1	1	...	6
		T. ...	32	5	2	2	1	42
	Barnes' Bag	P. ...	7	...	1	1	...	9
		M. ...	1	...	..	...	...	1
		T. ...	8	..	1	1	...	10
	Cephalotripsy and Craniotomy.	P. ...	2	...	...	...	...	2
		M. ...	...	...	...	...	...	...
		T. ...	2	...	...	..	...	2
Results.	Recovered ...	P. ...	21	4	3	3	1	32
		M. ...	3	1	...	4	...	8
		T. ...	24	5	3	7	1	40
	Dead — Before delivery.	P. ...	2	...	1	...	4	4
		M. ...	...	1	...	...	...	1
		T. ...	3	1	1	...	1	5
	Dead — After delivery.	P. ...	37	5	1	5	...	48
		M. ...	6	...	1	...	1	8
		T. ...	43	5	2	5	1	56

*P=Primipara. †M=Multipara. ‡T=Total.

[illegible] observers, will [illegible] to compare the following [illegible]

Name of Hospital or of Observer.		Ratio of eclampsia to deliveries.	Multiparæ.	Primiparæ.	Percentage mortality. Mothers.	Fœtus.
Med. Coll and Eden Hosp.	Indians ...	75	12	74	86 1	59 3
	Non-Indians	286	5	10	66 6	40 0
	Total ...	106	17	84	54 4	56 4
Guy's Hospital Charity...		842	40	60	17	26 6
Krassing ...		500	6	10	56 25	17 3
Spiegelberg ...		500	18	82	33	50 0
Galabin ...		500	3	16	30	50 0
Winckel ...		400	197	426	32 4	77 0
Lohlein (Vienna Hospital)		318	15	88	23 69	14 2

From these tables it will be seen that eclampsia occurs much more frequently in Calcutta, and that primiparæ are more liable to it than are multiparæ, and the suggestion has been put forward that in hospitals only the *poorest* cases come in, thus raising the ratio. But that would be wrong where the Indians are concerned, since it is only the *lowest* class of the native population who seek hospital aid, caste prejudices preventing the higher classes from availing themselves of it, and even admitting that a larger proportion of worse cases are admitted, there is still a very high ratio requiring explanation, more especially as to the special frequency of eclampsia in primiparæ, even though different views are put forward from time to time of the ætiology of this disease

That there is a close connection between albuminuria and eclampsia was first pointed out by LEVER, who held that in consequence of renal failure or an inadequate secretory activity of the kidneys *some* toxic element circulates in the blood, and by this poisoned blood the brain and nerve centres are brought into an irritable condition, which reaching a certain degree, an explosion in the form of convulsions occurs. He furthermore shows that the pressure of the gravid uterus upon the renal vessels induced *albuminuria* which (1) being specially present in primiparæ manifested itself as eclampsia, but (2) disappeared soon after the uterus was evacuated of its contents.

It is urged by Professor CARL BARTELS that the position of the renal veins protects them under all circumstances from any direct pressure by the pregnant uterus which, he thinks, would have to bend very much back on itself before its posterior wall could touch any part of the anterior surface of the second lumbar vertebræ, and even if it could reach such a position, it could never compress the right renal vein. But he has forgotten that (1) while the unyielding abdominal wall prevents the uterus from falling forward away from the spinal column (2) the intra abdominal pressure exerted by the growing and pregnant womb alters the relative relation of the abdominal viscera and (3) pressing upon the coils of intestine indirectly exerts sufficient pressure on the renal veins to produce congestion, especially when (4) the peritoneum, which scarcely adequate for such a purpose,

[illegible] the kidneys [illegible]

That in the kidneys are always more [illegible] in females than in males, it is not hard to see how a very little extra pressure might displace the kidneys outwards and thus elongating the renal vessels diminish their calibre and obstruct the flow of blood, and in a multipara this increased abdominal pressure comes into play when (1) though previously pregnant she did not go to full term and therefore did not have her abdominal wall relaxed, (2) when the rigid fibres of her extreme muscular development do not readily yield to the enlarging womb, and (3) by plural pregnancies, hydramnios or an unusually big fœtus.

GALABIN says in those cases in which there has been an absence of albuminuria throughout, it appears that increased reflex susceptibility and the presence of a source of irritation, complete the whole pathology, and he is borne out by GUBLER, who holds that though the kidney may not be primarily diseased, it serves as a filter to eliminate the excess of albumin which the pregnant woman's blood contains, while PETER caps this by suggesting "transudation of albumen and autotyphiliation," which, TYLER SMITH opines, may depend upon sympathetic irritation of the kidney by the gravid uterus and not upon mere pressure, and while HALBERTSMA attributes eclampsia to compression of the ureters by the gravid uterus," FRANKENHAUSER, who discovered a direct connection between the nerves of the uterus and the renal ganglia, insists that the nervous, and not the vascular, system is the starting point of puerperal convulsions.

The opponents of the pressure theory urge (1) that albuminuria ceases as soon as pregnancy is over by the emptying of the uterus, reverting the blood to its normal condition and removing an inflammatory hyperæmia of the kidneys through releasing the tension throughout the entire aortic system, (2) that albuminuria appearing in the early months of pregnancy (3) may disappear by treatment by purges and bleeding, though the uterus continues to grow, and they note that (4) albuminuria and convulsions not seldom occur in multipara though escaped in the first pregnancy, but they forget that (1) all this may be explained by the pressure theory and (2) by renal hyperæmia pregnancy favors rather than precludes an attack of Bright's disease.

The novel sensations incident to her situation, the dread of her approaching labor and anxiety as to its result naturally make the primipara irritable, mobile and excitable, and this condition of high tension and increased irritability tend to produce a state of erethism of the nervous system strongly predisposing to convulsions, whose actual exciting cause appears to be a poison of an unknown nature retained in the blood, and the accompanying nephritis and consequent albuminuria may be the result of extra work thrown on the kidneys by (1) the depressed vitality of the patient, (2) the pressure of the fœtus and enlarged uterus, or (3) by reflex nervous irritation, originating in the pregnant uterus.

As amply proved by eclampsia actually commencing during labor and by the uterine contraction being often the starting point of a convulsion a pregnant or a parturient woman has convulsions in consequence of a recent

nephritis because (1) *that* form of nephritis is especially severe in its effects of diminishing the excretion of solids and (?) the reflex excitability increases in preparation for the powers of labor which is carried on through reflex irritation in the presence of the ovum, the occurrence of labor pains and the pressure of the fœtus in the cervix or vagina.

SPIEGELBERG finds eclampsia dependant on uræmic poisoning through inadequate secretory activity of the kidneys, whether from pre-existing renal disease attaining a dangerous degree of severity by the gravid or parturient condition, or acute affection of the renal vessels, quite suddenly inducing complete anuria by *vaso-motor spasm* through reflex irritation from the uterine nerves, and the increase in the arterial pressure at the onset of the spasm is a consequence and aggravates the disease ; but ROSENSTEIN and TRAUBE say that eclampsia only arises when the aortic pressure is suddenly raised in a very hydræmic person. This resulting in œdema of the brain, the transuded serum compresses the cerebral vessels and leads to acute cerebral anæmia followed by coma, if the alteration is confined to the cerebrum ; but if the middle brain be involved there will be convulsions.

STUMPF, who inclines to the fœtal theory, is undecided whether the material which causes the disease is produced by an infectious agent introduced from without or whether it may have been transmitted from the child to the mother, but, taking into consideration the predisposition to this disease in twin and triplet pregnancies and its fatal effect on the fœtus as well as the fact that fœtal death during pregnancy lessens or entirely overcomes the danger for the gravida, WINCKEL finds that everything seems to point to the intimate relation existing between the mother and the child in regard to the origin of eclampsia.

BRAXTON HICKS advances the view that the convulsion may cause the albuminuria and DEPAUL, LEGROUX, LEVY, and FORDYCE BARKER agree with him while the researches of MAHOMED which go to show the occasional precedence of the fit over the albuminuria by the kidney already laboring in the pre-albuminuric period, are in harmony with the views of GULL and SUTTON that arterial fibrosis and hypertrophy of the heart react upon the kidney in causing Bright's disease, with an increased liability to convulsions at the menstrual epochs, when the nervous and vascular tension is increased ; but while the tension falls when the child dies in utero, all that is wanted to overthrow the balance is an exciting cause which is found in the noxious stuff, retained in the blood through imperfect excretion, and which, diminishing the nutrition of the nerve centres, irritates the diastaltic centre and provokes the convulsion.

TARNIER, DE SINETY, LEYDEN and EWART pretty closely endorse the views held by BARNES, who points out that in a large proportion of the cases the albuminuria precedes rather than succeeds, or at any rate is abundantly found *at the time of* the first fit and not 24 hours after it. The high vascular tension telling upon the kidneys impairs their working powers, leading to an accumulation of noxious stuff, the proceeds of the double nutrition of mother and fœtus, and causing irritation both of the kidneys and of the cerebro-spinal centres. The (1) hydræmic state of gestation leads to imperfect nutrition of the nervous centres, increasing both the (2) normal nervous tension and irritability, and (3) the normal vascular tension to (4) promote blood poisoning from imperfect elimination of waste stuff by the kidneys and other emunctories, while the (5) granular casts and epithelial scales that accompany the albuminuria are due to the dominant vascular tension of pregnancy making the mucous membrane of pelvic organs undergo an intense degree of hyperæmia (*congestion* but *not* inflammation) which is marked in the cervix uteri and vagina by (*a*) deep red and purple coloration, (*b*) tissue engorgement, (*c*) profuse shedding of epithelial scales and (*d*) exudation of muco-albuminous fluid.

In support of the hypothesis of both the nephritis and the convulsions being the result of a common cause, Dr. E. BLANC of Lyons claims to have found in the urine, not the blood, of such patients a *specific bacillus* which is the cause of eclampsia. Pure cultures of this bacillus, when injected into a vein in the ear of pregnant rabbits, promoted dyspnœa and fatal convulsions, but in non-pregnant rabbits they produced nothing beyond local inflammation at the site of injection, while in dogs, whether pregnant or not, the injections induced convulsions from which the dogs recovered after several days. GERDES confirms this, but HOFFMEISTER and HAGLES tested this point with negative results and . DODERLEIN, who altogether disputes the eclampsia bacillus theory, points out the impossibility of procuring urine, even under the *most* careful method, from pregnant women, without infecting it by the urethral secretions which are rich in bacteria of the most varied variety, and any one of which may have the property of evoking the symptoms noted by BLANC and GERDES.

That the *temperature and humidity of the air have a very great deal to do with the occurrence of eclampsia* in India at least, is very broadly hinted by the fact that of the 101 cases recorded in the Eden Hospital books between 1848 to 1894, *nine* occurred singly in 9 years and of the remaining 92 cases 44 came in groups within a period ranging from 24 hours to 34 days. The cases were distributed in different months as follows :—

Month.	No. of cases of eclampsia.			Period 1848 to 1894.		
	Period 1848-1894.	1891.	1892-1893.	Average temperature.	Average humidity.	Combined conditions.
January ...	10	...	3	66·5	69	+1·2
February ...	8	...	2	71·4	64	+0·8
March ...	3	...	...	79·7	67	—11·3
April ...	6	1	...	83·4	67	—3·7
May ...	6	1	...	85·5	77	—12·1
June ...	3	...	...	84·7	86	—8·2
July ...	6	2	...	83·1	89	—1·4
August ...	10	...	...	82·6	90	—0·5
September ...	8	2	1	82·7	88	0
October ...	10	4	3	80·6	88	+3·1
November ...	17	1	1	73·6	82	+19·0
December ...	14	1	1	66·7	70	+6·9
Total cases ...	101	12	11	...	...	...

From this table it will be seen that more cases come in between the months of September and February, when there is a diminution of atmospheric temperature than during the other months.

It is a well-known fact that the functional activity of the skin decreases in the cold weather and the more saturated with watery vapor the air, the sooner does the secretion appear in drops on the skin, while in dry air or in air in motion the formation of drops of sweat is retarded or prevented. Owing to the reciprocal relation between the skin and kidneys the latter secretes less water in summer when the former is active and excretes a good deal more water in winter when the skin is less active. So that the action of these two organs being in inverse ratio, it naturally follows that the diminished activity of the skin does tells severely on kidneys that already have more thrown on them in the role of pregnancy.

The sudden alteration, so common in Bengal in the temperature and humidity of the atmosphere, and to which the women of this country are very much exposed, *must* interfere with the function of the skin and lead to renal congestion. Imagine the effects of a cold bath on an early morning in an open space with the wind blowing. The average Bengali woman comes out from a closely packed room, takes *such* a bath and immediately after changing her wet clothes *has* to sit over the kitchen fire to prepare the food for her household. The fact of her being pregnant does not excuse her from either of the duties (*i.e.* bath and cooking) whose sudden alternations expose her to chills and acting as very cogent predisposing factors in the causation of renal congestion, are to a certain degree responsible for the greater prevalence of eclampsia here, in Calcutta especially.

The relative frequency of eclampsia in pregnancy and in labor or that period of gestation when the disease is more frequent cannot be conclusively determined owing to want of efficient statistics, for labor so often coming on as a consequence of the convulsive attacks, many of the cases which really belong to gestation are put down as occurring during labor.

The Morbid Anatomy reveals very little towards clearing up the aetiology. Thus :—

(1). *Brain.*—Serous effusion in 44·4 per cent. engorgement of the vessels in 88 9 ; anæmia of brain substance in 55·5 and its hyperæmia in 22·2 per cent., cerebral apoplexy in 11 and cerebral softening in 11.

(2). *Lungs.*—Congested in 77·8, pneumonic in 22 and pyæmic infractions in 11 per cent., while there was no fluid in the pleural cavity of 88·9 per cent.

(3) *Heart.*—Hypertrophied in 33 per cent. and mitral obstruction with hypertrophy in 11 per cent., while in 88·9 the pericardium contained a little fluid.

(4) *Peritoneum.*—Effusion in 11·1 per cent. only.

(5) *Liver.*—Soft and fatty looking in 78, firm and anæmic in 11, and congested in 12 per cent.

(6) *Spleen.*—Enlarged in 45, trabecular structure hypertrophied in 23, its capsule was thickened in 34 and its substance soft in 23, dark in 23, pulpy in 11, firm in 34 and spongy in 11 per cent.

(7) *Kidneys*—Were congested in 60 and inflamed in 40, hypertrophied in 33, atrophied in 33, hyperæmic in 34 and its cortical substance was fatty in 23, atrophied in 23 and hypertrophied in 12 per cent.

(8) *Ovaries*—Were injected in 12, cystic in 34, atrophied in 22 per cent, and normal in the remainder.

The treatment—Consists in (1) controlling the convulsions by *profound narcosis*, (2) speedy evacuation of the uterine contents, (3) diaphoresis with a view to re-establish skin function and reduce the tension.

(1) Chloroform is the sheet anchor, but where the uterus is greatly distended, it *should not be exhibited without first rupturing the membranes* when bringing the patient under its influence as quickly as possible, and as soon as narcosis is *complete* empty the bladder, clear the bowels by a large enema and maintain the narcosis *which should be a deep one while the uterus is being emptied as rapidly as possible.* Enemata of chloral rubbed up with yolk of egg and milk will considerably help the narcosis.

(2). Put on the forceps *at once* if the os be sufficiently dilated to admit them ; but if the dilatation be only slight or not at all, dilate with BARNES' bags and deliver by forceps and after the placenta has also been removed employ some antiseptic intra-uterine douche.

When in doubt as to induce premature labor, bear in mind that as the fate of the child is linked with that of the mother (if the mother dies the chances are that the child must also perish) it is *not* justifiable to let her run the risk of losing her life or of drifting into grave disease under the expectation of saving the child, and as the mother's life ought to be and is of greater consequence, lose no time in relieving her. Having deeply anæsthetized her, dilate the cervix with BARNES' dilators and as soon as this is done sufficiently wide to admit of it, immediately rupture the membranes, apply the forceps and removing the fœtus by firm yet gentle traction, see that nothing is left behind in the uterine cavity and genital canal.

(3). After the completion of labor some diaphoretic measures should be adopted to make the skin act vigorously. The vapour bath is most probably the most efficacious means of producing this result, as while it promotes diaphoresis it braces up the system and soothes the patient remarkably.

Of the effects of venesection in such cases very little, if anything, is positively known, but Surgeon-Colonel ROBERT HARVEY very satisfactorily treated several cases in the Eden Hospital between 1885 and 1887, by applying a large number of leeches.

Pilocarpine has been successfully used for this purpose by some obstetricians. but great care and discrimination should be shown in its exhibition. It should *never* be used during coma, as it produces an abundant flow of saliva and a copious secretion of the mucous membrane lining the air passages, which might lead to urgent symptoms of suffocation. If however it is decided to use pilocarpine, it is *wisest* to give no more than two doses of a twelfth of a grain each at intervals of quarter of an hour.

DISEASES OF THE CORNEA.

By C. C. Caleb, M.B., M.S.

Professor of Physiology, Lahore Medical College, and Surgeon to the Eye and Ear Out-patient Department, Mayo Hospital, Lahore.

Treatment of Complications.

(*a*). *Perforation.*—When perforation of the ulcer is impending, as indicated by the bulging forward of the floor, the event should be forestalled by paracentesis of the cornea. By doing so, an irregular rupture of the tissues is prevented, and in consequence of the reduction of intra-ocular tension following upon the escape of the aqueous, the reparative process is directly stimulated and further progress of the ulcer is checked. After the paracentesis atropine should be used (eserine, if the ulcer is marginal) and the patient enjoined to keep to his bed for two or three days.

If perforation occurs, our method of dealing with it will depend chiefly upon the size of the opening. If this is small and not situated in front of the pupil, the gap, as has been explained, is closed mechanically by the apposition of the iris to the posterior aspect of the opening, and in such cases it is enough to keep the patient in bed for a few days with both eyes bandaged, in order to allow the margins of the perforation to close up and at the same time to prevent the formation of anterior synechiæ. Should, however, a permanent adhesion occur, we must endeavour, in addition to these measures, to break the adhesion by means of eserine alone, or of eserine and atropine used alternately, and to attempt to reposit the iris by means of a probe. If the perforation is a large one and has become occluded by a corresponding prolapse of the iris, the hernia must be repeatedly punctured; and if this does not suffice, it must be snipped off close to the cornea by means of curved scissors. I prefer to make two or more fine incisions into the prolapse by means of a Von-Graefe's cataract knife; by this means, the chances of the hernia remaining open for a longer period than would be the case if it were simply punctured are considerably increased; at any rate the method does away with the necessity of repeating the operation too often.

Gamo Pinto recommends that after excision of the prolapse, the aperture should be covered up with a flap twice as large as the opening, taken from the bulbar conjunctiva, the eye to be subsequently covered with a compress bandage, which is not to be removed for three days. By this means a flat cicatrix with little or no synechia is said to be produced (De Schweinitz).

It is to be remembered that in all these operations the underlying object is not only to evacuate the aqueous humour, but to prevent its re-accumulation until the cicatricial tissue has become sufficiently firm to resist the pressure (Von Ablt).

If the lens also has prolapsed, it is best to remove it.

In case a more or less complete ectatic cicatrix has formed, and provided there is any sound cornea remaining, an iridectomy is to be performed. The main object of the operation, apart from any visual help it may give to the patient, being the prevention of total blindness induced by the gradual distension of the staphyloma through increasing intra-ocular pressure.

(*b*). *Keratocele.*—Rest in bed and a compress bandage followed by puncture are sufficient.

(*c*). *Fistula Cornæ.*—This is a most troublesome affection on account of the tendancy which it shows of opening up afresh after a temporary closure. We have to depend for a cure principally upon rest in the recumbent posture, a compress bandage, and the installation of eserine to reduce intra-ocular tension. Touching the fistula with nitrate of silver or cauterising it with a red-hot iron, are measures which in intractable cases are recommended—heroic methods, and dangerous in the extreme!

Keratomatacia.

Syn. Keratitis Xerotica; Necrosis Cornæ; Infantile Ulceration of the Cornea with Xerosis of the Conjunctiva.

This is a suppurative affection of the cornea which occurs exclusively in young children under three years of age. The keratitis is the local expression of a grave constitutional disorder, terminating fatally in the majority of cases, and characterised by a general disturbance of the complex processes involved in maintaining a healthy state of nutrition. The children in whom the affection shows itself are pale and anæmic: they suffer from troublesome diarrhœa alternating with constipation, have a hoarse thin voice, and usually die from sheer exhaustion in consequence of defective powers of assimilation. As might be expected, this marasmic condition occurs chiefly among the children of the indigent poor; in children who cannot obtain sufficient nourishment, who are brought up in unhealthy surroundings, and who are probably in a debilitated condition in consequence of an antecedent attack of measles, scarlatina or other exanthematous fever; hereditary syphilis is said to be in some cases casually related to the disease.

Keratomatacia begins with night-blindness, which is entirely functional, and depends upon torpidity of the retina from defective nutrition. Then the conjunctiva is noticed to have a characteristic dessicated appearance, and to develop triangular patches of xerosis situated on both sides of the cornea. The xerotic spots are due to fatty metamorphosis of the epithelial cells, possibly dependant upon specific microbic action. The xerosis extends over the rest of the conjunctiva, and attacking the cornea in its progress gives rise to insensibility and lack of lustre. A greyish-yellow cloudiness now appears upon the cornea, which rapidly degenerates into a pulpy mass; when this is cast off, a large ulcer, which may end in perforation, is left behind. Iritis with hypopyon is a common complication. Whilst the corneal affection is of the gravest character possible, it is a noteworthy fact that the symptoms of inflammatory irritation which generally occur in the severe forms of ulceration, are conspicuous by being almost entirely absent. Both eyes are usually simultaneously affected; sometimes one slightly before the other.

Treatment.—Local treatment is of no avail. Any amelioration of the corneal condition which may take place depends entirely upon improvement taking place in the general nutrition of the patient. The general physician, and not the ophthalmic surgeon, is the proper person by whom the treatment of such cases is to be undertaken.

Keratitis Neuroparalytica.

This form of ulcerative keratitis arises from trophic causes, leading to degenerative changes in the cornea, dependant upon lesion of the trigeminus.

The trigeminus, through its ophthalmic division, is the afferent nerve of the cornea, and supplies secreto-motor fibres to the lachrymal gland. Hence, lesion of the nerve, in any part of its course from origin to peripheral distribution, such as would be caused by an injury, a tumour or syphilis, brings about corneal anæsthesia and dryness of the eye-ball from arrest of the lachrymal secretion.

Following these immediate results, destructive ulceration of the cornea sets in. Two very different views have been advanced as to the relationship existing between the pathological changes which occur in the cornea and the trigeminal paralysis. According to one view, the corneal inflammation is a remote consequence of the nerve lesion being brought about, as is explained later, by the anæsthetic condition of the cornea and the absence of the lachrymal secretion. According to the other view it is the direct and immediate result of the trophic disturbances which ensue on lesion of the nerve.

Taking the latter interpretation first, we have to remark that the most recent experimental enquiry into the subject, not taking into account any possible *specific* trophic influence, which the trigeminus may exercise upon the cornea, seems to point to the inflammatory phenomena being dependant upon vascular changes consequent upon section of the fifth nerve. If ablation of the superior cervical ganglion of the sympathetic is performed after the operation of section of the fifth, no corneal lesions occur, or if they have occurred, their further development is arrested; and this occurs whether the eye of the operated side is or is not artificially protected. This inhibitory influence of the sympathetic ganglion ceases if the carotid is ligatured, or the depressor nerve of the heart irritated (Snitzin).

On the other hand (the first interpretation) it is held that the corneal inflammation, consequent upon section of the trigeminus, is the result of traumatism (Snellen and Leuftlen) or of dissiccation (Tener) or of both acting in combination. In consequence of the corneal anæsthesia and the absence of tears, foreign particles are neither detected nor washed away, and hence it is argued that the corneal inflammation is essentially of the nature of an irritative lesion due to trauma. According to this view the so-called keratitis neuroparalytica is only a keratitis e lagophthalmo. In support of this contention, it is urged that ulceration of the cornea does not occur if care is taken to protect the eye after section of the trigeminus, by means of a metallic capsule or a watch glass strapped in front, or by the application of an ordinary protective bandage. *Per contra*, it is to be remembered that simple mechanical injuries of the cornea, unless they become infected, never give rise to anything more serious than a passing haziness, and that whilst "a protective bandage is a certain preventive of a keratitis e lagophthalmo it is of no avail against the development of a true keratitis neuroparalytica." (Fuchs).

The present state of our knowledge does not warrant us in ascribing to the trigeminus or to any other nerve in the body a specific trophic influence. In Stewart's words, "no unequivocal proof, experimental or clinical, has ever been given of the existance of such nerves, and therefore unless we adopt the keratitis e lagophthalmo view of the case, it seems more than probable that the inflammation of the cornea is primarily due to the disturbances of nutrition which result from the vascular changes consequent upon the withdrawal of the trigeminal influence; traumata inflicted upon the cornea, which under ordinary circumstances produce no more than an ephemeral cloudiness, act as excitants of purulent inflammation in a tissue which has already become non-resisting in consequence of impaired nutrition.

Symptoms.—The keratitis begins at the centre which becomes dull and denuded of its epithelium. The cloudiness and denudation of the epithelium gradually spread towards the periphery, but never involve the whole of the cornea, a narrow rim being left practically untouched by the ulcerative process. The central parts then become distinctly purulent, hypopyon (pus alone or pus and blood) becomes established, and perforation of the cornea with prolapse, more or less total, of the iris occurs. When the ulcer heals, a flat cicatrix, in which the iris is included, results. The symptoms of irritation are either absent altogether, or if present, are not of a very marked type. Pain is of course absent, in consequence of paralysis of the trigeminus.

Prognosis and treatment.—The prognosis of keratitis neuroparalytica, even in its least serious form, is extremely unfavorable. Treatment is ineffectual. The eye should be protected from the influence of irritants by the application of a protective bandage. Warm compresses and atropine might be used possibly with benefit.

Keratitis E Lagophthalmo

This is an ulcerative lesion, due to dessication of the cornea from imperfect closure of the lids (lagophthalmus). It occurs in cases of contraction of the lids, exophthalmus, paralysis of the orbicularis palpebrarum, and in such diseases as cholera, typhoid and pyæmia, where the patient remains in a semi-unconscious condition, with the eyes only partially closed.

In consequence of the continuous evaporation which takes place in these cases, the conjunctiva and cornea are found to be covered in the exposed inter-palpebral fissure with yellow crusts. If the corneal crust is removed, the membrane beneath appears clouded; the cloudiness, which is due to the presence of an infiltrate, rapidly increases, and by the disintegration of the superficial layer, becomes converted into an ulcer, with its long diameter horizontal. Iritis and hypopyon are generally present, and perforation of the cornea with its sequelæ is very liable to occur. If the patient does not succumb, and the ulcer does not go on to perforation, the case may terminate with no worse result than a permanent opacity. Symptoms of irritation, such as pain and photophobia, are usually slight.

Treatment.—The indicatio morbi requires the closure of the affected eye to prevent dessication, for this purpose the lids should be fastened together by means of strips of sticking plaster, and the eye to be carefully bandaged up, as a further precautionary measure.

HERPES CORNEÆ (HORNER).

Herpes of the cornea presents itself in two forms; (*a*) Herpes corneæ catarrhalis and (*b*) Herpes zoster corneæ.

Both these affections are characterised by the formation of small vesicles upon the cornea. These consist of circumscribed elevations of the anterior epithelium caused by serous exudation, and are thus very different from the efflorescences of phlyctenular keratitis, which consists of masses of lymphoid cells. As a rule the herpetic eruption is composed of a number of vesicles arranged in groups, or in rows like a string of beads.

In consequence of the fact that the wall of these vesicles is extremely thin, consisting of epithelium only, it is seldom that the surgeon sees the eruption in its vesicular form; what is seen are the minute superficial ulcers, more or less round which, early in the course of the disease are formed by the breaking down of the epithelial wall. The surface of the ulcers is anæsthetic.

Corneal herpes, which appears in paroxysms, and is generally unilateral, is always accompanied by marked symptoms of irritation. There is active congestion of the conjunctiva, severe lachrymation, photophobia, and pain. These symptoms are relieved or entirely disappear with the rupture of the vesicles.

(*a*). *Herpes corneæ catarrhalis* occurs in acute inflammation of the respiratory passages, such as disease of the posterior nares and pharynx, bronchitis, pneumonia and influenza, and sometimes in febrile affections like whooping cough, intermittent and typhoid fevers. Associated with the corneal affection there may be herpetic spots upon the eyelids, face, nose, and lips

The prognosis of herpes of the cornea is extremely favorable. The ulcers, provided the nature of the disease is recognised, and suitable treatment adopted, soon heal (7 to 10 days), leaving only a fugatious opacity behind. In neglected or severe cases, they may by infection take on the character of a keratitis dendritica.

The treatment is in the main that of corneal ulcers generally—antisepsis, protective bandaging, and the use of atropine or eserine. The general condition of the patient should at the same time be attended to, and if necessary tonics and quinine internally administered.

(*b*). *Herpes zoster Cornea.*—Is a local manifestation of herpes Zoster ophthalmicus. It differs, so far as its course is concerned, from herpes corneæ catarrhalis, in its longer duration, in the tendency to the formation of a more lasting opacity, and in the fact that after rupture of the vesicular envelopes the symptoms of irritation do not disappear.

The treatment is the same as that of herpes catarrhalis.

KERATITIS BULLOSA.

Syn. Keratis Pemphigus Cornea.—This is an affection allied to the two forms of herpes above described. It is a rare disease, and occurs in almost every instance, secondarily to glaucoma, or irido-cystitis. It is characterised by the formation of one or more large blister-like vesicles upon the cornea, filled with serum; the wall of these is formed by the anterior epithelium and by connective tissue newly formed between the epithelium and BOWMAN'S membrane. In consequence of this the bullæ do not break down with the same ease as do the small vesicles of herpes. When the bullæ are of comparatively small size and of short duration, the disease is designated as a *keratitis vesiculosa.*

The *cause* of keratitis bullosa is not understood, VON ARLT considers it as a variety of interstitial keratitis consecutive to glaucoma or irido-cyclitis, or a large corneal cicatrix. Since in nearly every case the disease is attended by increased intraocular lesion, it has been suggested (FUCHS and BRUGGER) that the cause of the disease is to be found in the stagnation of the lymph circulation caused by obstruction of the normal channels at the limbus. Hence the cornea becomes odematous, the lamellæ are dissociated, and the fluid pushing forwards lifts up the anterior epithelium from BOWMAN'S membrane in the form of one or more blisters.

Keratitis bullosa is always accompanied by violent symptoms of inflammation. There is acute pain, photophobia and lachrymation; ciliary injection, however, is slight. By the rupture of the blebs a hazy abrasion is left behind; this may go on to ulceration. The disease shows a marked tendency to recurrence.

Treatment.—This consists in puncturing or excising the vesicles. By this means, we succeed in mitigating the inflammatory symptoms, but do not prevent the recurrence of the eruption. This can only be effected by the performance of an iridectomy to relieve the causative increase of tension. When this fails, the affected eye, which for visual purposes is already a useless organ, must be removed

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IGNORANCE THE CHIEF CAUSE OF DISEASE.

BY HARA KALI SEN, C.M.S

Paiganj, Dinajpur.

IF ignorance is bliss 'tis folly to be wise
Is a senseless couplet plied before our eyes,
For IGNORANCE I hold the *worst* crime neath Eastern skies.
It is the chief cause of all our social ills
With Superstition's dregs our cup of woe o'erfills
And proves *the* horrid curse that countless millions kills.
By cruel, heartless rites, *not* by the *shastras* taught,
And quite opposed to Reason yet by Custom brought
To bear on untaught thousands, though with danger fraught.

Ignorance and superstition are twin sisters, under whose blasting influence are committed the most heinous crimes and diabolic acts. Under their potent sway all thoughts of kindness are crushed out of the human breast. Men became more ferocious than tigers, and women so heartless that mothers willingly threw their new-born babes into the sacred Ganges or urged their widowed daughters to immolate themselves on the funeral pyre of their sons-in law. Men offered human sacrifices to propitiate the Earth-goddess, and fathers smilingly "sliced," their living children to pieces. 'Twas but the other day a man killed his own son in cold blood because he dreamed that his god wished him to do so.

Medicines are useless and sanitary science a waste of energy, so long as superstition and ignorance are allowed

to rule the roost. Not long ago, cholera broke out in a tea garden in Assam where the native doctor in charge offered the coolies medicines and advice how to act to prevent a further spread of the disease. "Oh! what good will your medicines do? they said. "We know the real cause of this disease, and will take steps to put an immediate stop to it." That very night they most cruelly tortured a poor woman whom they accused of invoking the cholera by her witchcraft.

As here at Raiganj, so also all over India, the ignorant classes firmly believe that every disease is caused by an evil spirit which must be expelled by *mantras* (*i.e.*, incantations) by a recognized *mahut* (exorcist). The ceremony of *mahuty* (exorcism) is performed at night, preferably when the patient, after offering *puja*, (a form of worship) is besmeared with mustard oil and joba flowers and made to stand between the *mohuts* who shriek their *muntras* at *him* or *her* the livelong night, and violently shake *him* or *her* every time *he* or *she* is overcome with sleep.

Crass ignorance like this is to be deplored, but it cannot be helped till *education* paves the way to understanding the benefits to be derived from effective sanitation and trained medical aid. It may seem strange, but it is nevertheless true that there are many rich peasants who die without medical attendance, not because they cannot, but because they do not want to get a doctor to treat them.

Legislation can do no good on these points, as the people are too ignorant to grasp the benefits promised, and just now financial difficulties will not allow Government to engage the enormous staff necessary to explain sanitary requirements, and refuse cremation or burial without *post-mortem* examination of those whose deaths are not supported by sufficiently legal medical certificates.

Besides it will be no easy task to convince the masses that there is no real virtue in their phylacteries and medical charms dispensed by their *hafises*, *mahuts*, and *phalkholuewalas* who trade on their credulity.

Well the uneducated masses pay dearly with their lives and healths for their ignorance, but what excuse have the educated B A.'s and M A.'s of our Universities for adhering to *caste* and *astrology* which retard progress and promote disease and early death?

Caste.—Before the revival movement no educated Hindu dared to openly speak in favor of *caste*, that abominable system that has principally contributed to our downfall. The Brahmins were particularly interested in its revival since it gave them a powerful hold on the people who worshipped them as gods, but it is surprising to see the many educated Hindus, who are staunch advocates of caste, which they even try to afford scientific explanation for the necessity of, by saying that "caste controls the law of heredity," which upholds social distinctions of human beings and rules that good parents beget good children. But there is neither moral nor hereditary law that says that a bad man *must* be respected simply because he was highly born of good parents. How expect an educated Sudra to honor, obey and respect an educated and immoral Brahmin for no other reason than that he (the latter) belonged to a higher caste.

In a previous article I showed how caste deteriorated the physique, intellect and courage of Indians by prohibiting intermarriage. I will now show how caste is detrimental to health, wealth and wisdom.

No matter how hungry he may be, a Hindu must *not* eat or drink anything, however nutritious and necessary, that has been prepared or even touched by any one who is of a lower caste than himself. Hence he cannot cross the seas for purposes of study or of commerce, and an effectual barrier is thus placed against his education and prospects of wealth from foreign climes, while international trade is strictly forbidden.

Expenses cheapen when a number of persons club together for "mess"; but caste privileges will not always allow this, and the majority of us who hold official appointments *must* live separately because all our office mates are not of the same caste. A man drawing Rs. 40 to Rs. 50 per mensem *has* to engage a servant to do his odd jobs for him, but as he cannot eat from this man's hands, he has to also entertain a Brahmin who will do nothing more than cook for him—and this means throwing away Rs. 10 a month or starving, because he is afraid of caste. In short, the present Hindu system of caste is a pernicious evil which demoralises the people in many ways and has not a single redeeming feature about it.

Astrology.—Is the source of endless expense and ever-increasing anxiety to its advocates (some educated men too) who will do nothing, not even take a dose of medicine without first consulting the almanac to see whether it is an auspicious hour and date for such act.

Man is ever curious to peer into the future, and astrology trades on human curiosity by pretending ability to reveal that future. If heavenly bodies do exert any influence of good or evil on any days of the year, those days and influences should affect Christians, Mahomedans and Hindus equally. If a European can travel with perfect safety or undertake anything on an 'unlucky' day, why may not a Hindu do so also.

Just to show how little credence I place in astrology, I always pick upon an "unlucky" day when I have to start for a railway journey with my family, and I have not yet suffered harm for defying the prognostication of the stars.

Aetiology.—The mind is its own self, and in itself can make

A hell of heav'n and heaven of hell

Wrote the grandest of all English poets, and the mind can so control the body as to produce various symptoms of ill health, which do not differ a particle from the symptoms of true disease. These "mind-formed diseases" which are usually the result of fear or a too vivid (though often unwitting) imagination may proceed *ad extremes* or disappear under faith and suggestion.

The majority of the Indian races are uneducated and ignorance begetting superstition, the ignorant man never stops to think for himself or to look into the laws of cause and effect but accepts accidental coincidences for positive truths, and attributes everything he cannot thoroughly understand to the supernatural. Hence the Hindu belief in *mantras* instead of medicine for the cure of disease.

To the shame and sorrow of our Hindu nation educated Hindus of the "caste revival class" place implicit belief in everything that appears in Sanskrit script or in the *shastras*. They never stop to enquire whether the *shastras* they credit are the ancient and genuine articles of Hindu religion or those newly manufactured to suit interested motives. It is enough for them that the writing is in Sanskrit and some carry the theory of "every thing is possible and nothing impossible" so far as to actually believe that if mango trees are subjected to certain processes, they will produce not mangoes but plantains, and this because they chanced to read some such nonsense in some Sanskrit book.

What makes the savage worship the fire, the storm, the water or some powerful phenomena of nature and try to propitiate them by sacrifices? Ignorance prompted by fear and the superstitious craving in every human breast for something to reverence.

Many an educated Hindu is compelled by social and spiritual fear to retain his superstitions and place implicit faith and reliance in the accuracy (???) of his religious books, which it would be a deadly sin for him to question or doubt. This too ready faith in what others say or pretend to quote from religious teaching gradually deprives them of self-confidence, self-reliance and self-respect, and obliterates the power of thinking for themselves.

Treatment.—Reason must be made to occupy a higher place than mere authority or superstition and the uneducated must be *taught* to think for themselves by being shown that many things they looked upon as *magic* were readily and easily explained by natural philosophy. After which they will be able to see through the superstitious stupidities of mythology and be released from their blind thraldom.

Their minds could then be expanded by the secular and scientific education of the West, so that they may grasp and retain the solemn truth *mens sana in corpore sano*. And then, but not till then, the sanitary condition of our villages will be properly attended to and our peasantry saved from many preventible diseases, that under the present *regime* of ignorance and superstition cuts their lives short.

For the preservation of health and inducement to longevity two things are necessary: knowlege wherewith to shake off superstition, murderous bonds, and wealth. One without the other is powerless to save us from the pangs and woes of many fell diseases. And with efficient education both these desiderata will and must surely come.

ENERVATION.

MARGAIN has recently made a study of a certain morbid condition related on the one hand to hysteria, on the other to neurasthenia, and which includes in point of fact many phenomena met with in neuropathic patients, and aptly included under the title of "enervation." The author points out that owing to modern conditions of life the effects of overstrain, the multiplicity of emotions, and, it must be admitted, the glaring defects of modern education, enervation promises to become more and more frequent, and persons so affected seem to become less able to cope with it. Loss of energy, sleeplessness, defective digestion, and irritability are among its leading symptoms. Against this, a treatment both moral and physical must be directed, the general health must be carefully watched, for it would seem that such patients are under the influence of a form of auto-intoxication, due, it may be, to constipation, confinement, or alterations in nutrition produced by excesses.—*Brit. Med. Jour.*

A MIRROR OF PRACTICE.

DEFORMED PELVIS: SYMPHYSEOTOMY: DELIVERY BY FORCEPS: BOTH MOTHER AND CHILD SAVED.

BY T. M. SHAH, L.M.S.,
Chief Medical Officer, Junagadh State.

A MAHOMEDAN female, 9th pregnancy, full term, been in labor last three days.

3 P.M. *Vaginal examination*; membranes said to have ruptured early this morning. Head presenting and is jammed in the cavity of pelvis, strong pains but head unable to progress. Pelvis contracted. Tuber ischii approximated and there is an exostosis about the size of a walnut, on the concavity of the sacrum reducing the pelvic diameter and obstructing the progress of the head. Natural delivery was out of the question, and patient was advised to go to hospital, but her relatives objected and would have rather she died. Her previous labors had been protracted and delivery always effected by version.

11 P.M.—The contraction of the pelvis was so great that delivery by forceps or perforation was impossible and Cæsarian section seemed to be the only course to be adopted. But I decided to try symphyseotomy before performing such an operation, which is generally so fatal in its results.

The patient being placed under chloroform, and the urine withdrawn by catheter, a Syme's bistoury, was passed underneath the skin and the pelvic joint divided. The bones separated to the extent of an inch, sharp venous bleeding ensued from the wound. Next the long axis-traction forceps was applied, but the blades did not lock, however, by traction with semi-locked blades, the head was brought down to the outlet when the blades slipped. The short forceps was then introduced, blades did not lock, but by traction the head was born, the body following after a few minutes. Though the child was not breathing, there was pulsation in the cord, so this was speedily ligatured and divided, and then artificial respiration and alternate cold and hot water immersion succeeding in reviving the infant.

There was free bleeding from the wound, which was arrested by pressure, idoform was then dusted and an abdominal bandage applied. Pulse 108 before and after the operation, of fair volume and strength.

9th.—Pulse 112, Temperature 100°. No bleeding, vomited during night, did not sleep well. Bowels not moved. Urine not passed freely. She was prescribed—

R	Mist. quininæ ...	... ʒiii No. (886)
	Tinct. Chlor. Co.	... 3i.
M.ft.	Mist. 3 doses.	
R	Tinct. Digitalis ...	... ɱ 20
	Liq. Ammon. Acetat....	... 3iv
	Pot. Nitrate ...	... 30 grs.
	Aquæ	... ʒiii.

11th.—She is doing well. Child restless and crying. Repeat Mist.—

R	Castor Oil	... 3iv.
	Aquæ Menth. Pip.	... ... ʒi st.

18th.—Temperature 100°. Pulse 100. Discharge yellowish and fœtid. Pubis painful. Pain in the right thigh. Slept badly during night.

℞ Liq. Ammon. Acetat. ... ʒiv.
Potassæ Nitratis ... ... ʒss.
Tinct. Digitalis ... ... ʒss.
Liq. Morphiæ ... ... ʒss.
Aquæ ... ad ʒiii.
Make three doses.

19th.—Temperature 102°. Pulse 120. Lochia same. Pubis painful. Appetite is impaired. Tongue is dry and coated.

℞ Glycerini ... ... ʒii.
Spt. Vin. Gallici ... ... ʒvi.
Liq. Ammon. Acetat... ... ʒvi.
Tinct. Digitalis ... ... ʒss.
Spt. Aether Nitrosi ... ... ʒss.
Aquæ ... ... ad ... ʒiii.
M.ft. Mist. three doses.

16th.—Temperature 100·4° Pulse 110. Right side of pubis swollen. Repeat mist with Liq. Morphia mꝛ20.

18th.—Temperature 98°. Pulse 90. Patient able to sit up without much inconvenience.

℞ Pulvis Doveri ... ... grs. xv.
Sodæ Bicarb ... ... grs. xv.
Quiniæ Sulph. ... ... grs. v.
Bismuth Subnit ... ... grs. ʒv.
Ft. pulv. three doses.

℞ Tinct. Opii ... ... ʒi.
Argenti Nitratis ... ... grs. ii.
Glycerini ... ... ʒii.
Aquæ ... ... ʒiv.
Ft. injection for rectum.

20th.—Temperature 98° 4. Pulse 94. From this time she improved steadily and in a short time was able to resume her usual duties.

Remarks.—Deformity of the pelvis was considerable and this case points out the utility of the operation of symphyseotomy in such circumstances. In all I have performed symphyseotomy on 4 cases. In the first case although pelvic deformity was very great, her next delivery was natural. In the second case delivery was safely effected by incising the symphisis pubis, but the patient died subsequently from the effects of septicæmia. This is the third and successful case, and a fourth operation has also proved successful.

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A STRANGE CASE OF HÆMORRHAGE

By John V. James, D.G.M.C.
Assistant Civil Surgeon, Mussoorie.

I was sent for to see an old lady suffering from hæmorrhage. I found Mrs. M. bleeding from the eyes, nose, mouth and ears. The blood flowed profusely from the mouth and nose and trickled from the inner canthus of the eyes and from the external meatus of the ears.

The nares had been plugged by the medical man who had been called in first but the hæmorrhage was still very severe. I administered drachm doses of extract ergot liq. every second hour and syringed the nostrils with a solution containing alum and tincture ferri and thus formed two clots which acted as natural plugs, and stopped the hæmorrhage from the nose. But the hæmorrhage from eyes and ears and mouth continued even after four doses of the ergot. I then tried a mixture containing acid sclerotic, acid gallic, tincture hydrastis and tincture strophanthi, and the two doses given within the hour checked the hæmorrhage. There was a slight return the next day, but the same mixture was used and met with success. I then ordered a mixture containing calcii chloridi and tincture hydrastis which was given three times a day, and there was no further trouble.

The patient being very anæmic was put on a course of iron and has been keeping very well since then.

Mrs. M. is now 68 years old. She was 16½ on the day of her marriage. She first menstruated at 13 and was very regular except for the last two years before the menopause, which occurred at 51, when she suffered from menorrhagia twice a month for a period of three to seven days each time. She had 10 children, all the labors being easy ones; she had two miscarriages.

She remembers only one attack of illness, and that was measles in infancy. Kept splendid health otherwise.

The first attack of hæmorrhage, like the present one, occurred when the patient was 55 years old, and lasted 7 days; second attack after 9 years lasted 15 hours only, third attack 1½ years after second; fourth attack ½ years after third; fifth attack ¼ year after fourth; sixth attack on 26th January 1896.

Prodroma in all seven attacks were severe headache for days together, feeling of great weight on head, tightening felt from temple to temple, and general malaise.

Patient remembers no injury to the head. Last child born when mother was 40.

Patient's father had severe hæmorrhages from the nose every summer as long as she can remember. Her mother had several mishaps and severe floodings which patient remembers very well.

She feels great relief after the hæmorrhage has occurred, but suffers from loss of memory for months after each attack.

Sight and hearing are very good, even at present. Heart, lungs and liver are quite sound. Ergot produces pain in the lower part of the spine and in the legs and uterus, but a course of iron very soon cured these evil after-effects.

Judging from the above history, the patient appears to be "a bleeder," and the hæmorrhage seems to come from the base of the brain and apparently seems nature's prophylaxis against cerebral apoplexy.

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OVARIAN DROPSY: OVARIOTOMY. RECOVERY.

By Assistant Surgeon T. M. Shah, L.M.,
Medical Officer, Junagadh State Hospital.

Liri Gova, Hindu female, *æt.* 22 years, has suffered from a gradually increasing abdominal distension for the last three years. She presents at present all the signs of the presence of fluid in the abdomen. The circumference of the latter is 66 inches, and the distance between the pubis and the ensiform cartilage 26 inches. She weighs 137 lbs. Liver, spleen, kidneys and heart appear to be normal.

Was confined three years ago, (the child died within a week); Has not menstruated since. Uterus and cervix normal. She then noticed a bulging on the right side of the hypogastrium, which has gradually attained the present dimensions.

Has lost flesh considerably, and is unable to attend to her work.

Ovariotomy.—24th May 1897, 12 A.M. All antiseptic precautions were taken and urine withdrawn. After being placed under chloroform, an incision was made in the linea alba, commencing just below the umbilicus and carried about five inches downwards. On opening the peritoneal cavity a quantity of clear fluid escaped. The cystic wall was white and traversed by blood vessels, the omentum being firmly adherent to it. The cyst was punctured by a Spencer Wells' trochar cannula and some grumous fluid let out (57lbs), some fluid also escaped externally. The cyst was then drawn out. It was slightly adherent to the abdominal walls in parts; but the entire omentum was firmly attached to the cyst, and it had to be literally torn from it, necessitating four ligatures—two to bleeding vessels and two to the mass of omentum. The pedicle was narrow and connected with the left broad ligament. It was ligatured, divided and allowed to drop in.

The peritoneal cavity was then thoroughly sponged.

The abdominal wound was then closed by silk sutures, including the entire thickness of the muscular wall and the peritoneum. Iodoform dressing, boracic lint, cakum, pad and bandage were applied Morphia ¼ grain injected hypodermically after operation.

30th.—Temperature 100°, pulse 98, urine withdrawn twice a day by catherisation, bowels not moved. Vomiting was checked by small doses of arsenic.

4th June.—Urine passed voluntarily, temperature 98°, pulse 80.

30th.—Wound has completely united by first intention, liver is enlarged to the extent of 2½ inches below the costal margin, tender to the touch. There is another induration in the left side below the splenic region. It is moveable but not painful, and rolls about according to the position of the patient She now takes ordinary solid food.

The hepatic and other enlargements gradually subsided by treatment in about a fortnight's time, and she made a thorough recovery.

THE TREATMENT OF VERTIGO KNOWN AS MENIER'S DISEASE.

THE writer reports the case of a man 58 years old. The patient who had previously been quite well was taken suddenly one morning in June 1893, with a violent vertigo, having all the features of Menier's disease. Following this the patient complained of a persistent noise in the right ear, and of a continuous vertigo for which he was given quinine in large doses with excellent results. Apropos of this case, the author takes up the history, causation, lesions and diagnosis of MENIER'S disease. He points out the *rôle* played by hyperexcitability of the labyrinth in the production of vertigo, and dilates on the efficacy of quinine in the treatment of the auricular forms of vertigo. The medicament should be given in ten grain doses once or twice a day for a period of at least a fortnight.—DE LA TOURETTE.—*Post Graduate.*

THE

Indian Medical Record.

16th April 1898.

SOME THOUGHTS ON THE DELHI POISONING CASE.

UNDER the above heading, the *Pioneer* for the 1st March devotes four columns to the discussion of the orders of the Punjab Government on the enquiry into the circumstances attending the death of the late Mr. LOUDOUN FRANCIS MACLEAN, C.I.E., Superintending Engineer, who died at Delhi on the 13th November 1897.

It is indeed most painful for any one, especially for members of the medical profession, to read such a record of lamentable carelessness, and we must all express to Mrs. MACLEAN the deepest sympathy with her in her irreparable loss. It is said that "a fault confessed is half atoned," and we must admit with shame, that the deceased died, as the Lieutenant-Governor says, "partly through mistake, and partly through disregard of rules," on the part of Government officials in the civil department of the Indian Medical Service. The "mistake" was that the Civil Surgeon of Delhi wrote a prescription in which he ordered "160 minims of *extract* of nux vomica," instead of *tincture*. The "disregard of rules" was that the compounder of the Police Hospital at Delhi, "instead of referring for orders, changed minims into grains in the prescription book, and dispensed the mixture accordingly." He was able to do this, because the Hospital Assistant sent him the keys of the almirah containing poisonous drugs by a servant, although he (the H.A.) was "responsible for their being dispensed under his personal supervision." The orders of Government to the Inspector-General of Civil Hospitals in the Punjab are: (1) that the Civil Surgeon shall be transferred from Delhi to a smaller station; (2) that the Hospital Assistant shall be reduced to the third class for two years; (3) that the compounder shall be dismissed.

In commenting on these orders the *Pioneer* naturally asks "on what principles of equity are these punishments thus graded?" In paragraph 6 of the Government letter, Sir MACWORTH YOUNG writes:—"In the year 1894, in consequence of a delay of 2½ hours in the dispensing of a prescription in the Police Lines Dispensary, Dr. DENNYS wrote an order as follows:—"The compounder should be told that in case of any complaint in future as to the preparation of medicine he will be severely punished." The *Pioneer* concludes:—"Finally, we should like to ask whether, while the leading Civil and Military officials in Delhi have (with somewhat questionable taste) been giving a *farewell dinner and dance* to Dr. DENNYS, anything has been done in the matter of a pension to the widow of Mr. MACLEAN?"

"Leading Civil and Military officials" in India are not always conspicuous for good taste, and as another example of this, we may allude to the famous Ootacamund fancy-dress ball, the chief feature of which was a dance of devils and angels. Against this outrage the Bishop of Madras protested, and was supported by the "press", but "society" only laughed, and now while a widow is mourning, her Delhi acquaintances dine and

dance with the author of the prescription which caused her husband's death. This callousness denotes a state of public opinion which is quite as serious as the carelessness which made the existence of such a prescription possible.

The Punjab Government order on this painful case does not quote the fatal prescription word for word, but merely comments on details of its omissions and corrections, but the profession ought to be informed for what illness nux vomica was ordered, and the whole prescription should be published word for word as it was written, for unless this is done, it is impossible to know what dose was intended to be given. "160 minims" seems a curious quantity of anything, especially of a poisonous drug, and if the compounder put "160 grains" of extract of nux vomica in the medicine, no wonder a fatal result ensued. It is extraordinary that the compounder should not have been aware of the dangerous property of this quantity, so the profession ought to be told how long this man had been a compounder, and what sort of education or training he had received. We should also be furnished with a copy of the prescription which procured this man a censure in 1894 when a delay occurred of 2½ hours, for unless we know the ingredients, we cannot tell whether the censure were merited, or otherwise. Moreover, the exact date in 1894 should be mentioned, and the time at which the prescription reached the compounder, for without all these particulars it is impossible to know if 2½ hours would be much of a delay, or not. For instance, if pills were ordered, one can understand that the time of preparation would vary with the season; as a pill, which might be easy to make in dry weather, might be difficult to complete nicely in the rainy season. All compounders are over-worked and underpaid, so it is not surprising that as a class they are indifferent to their work. It is preposterous that a man, whose duty it is to make up medicines and dress wounds, should have no better pay than a menial servant, whose duty it is to wait at table, dust furniture, brush clothes, &c. We have ascertained that this particular man was formerly a vaccinator, but on the reduction of establishment was made a compounder, being trained for the same at the Civil Hospital, Delhi. He has been 12 years in the service, and was in receipt of the princely salary of Rs. 10 per mensem. To state this fact is to condemn it, but there is such a mania for economy, that executive officers will not ask for proper pay for their subordinates, knowing that administrative officers will not recommend it, and Government will not sanction it. It is important that the reason for the delay in 1894 should be published, as it may prove to be the fault of Government, not of the compounder. Many years ago, when the present writer was at Peshawar, (a very large station as every one knows), an incident occurred which impressed him very much. He wrote a prescription one day for an officer's child about 11 A.M., but about 4 P.M. he received a note from its mother to say that no medicine had been received, though she had sent the prescription at once to the hospital, which was quite close to her house, not two hundred yards distant. He went at once to the hospital to see about this delay, when he met the Hospital Assistant at the gate of the hospital very much flurried and exhausted, as he had had a long ride and no breakfast.

The prescription was for an ordinary cough mixture, and for a piece of spongio-piline. The mixture was soon made, and the poor Hospital Assistant was very sorry that he did not send it at once to the officer's house, promising the spongio-piline afterwards, as he had none in store. Instead he went all round the station, both cantonments, civil lines, and city, but at none of these hospitals, military or civil, could he find any spongio-piline, so at last in despair he tried the jail, where he was at once given a large roll of it, which he brought to show to his own medical officer, who (like the subordinate) was astonished and disgusted to find that a common "hospital-necessary" like this was denied to the tax-payers and to the defenders of the State, but was supplied lavishly to convicts. Observers of Indian manners and morals might with some justice conclude that it was held to be a more heinous offence to kiss your neighbour's wife, than to kill your neighbour by misadventure; for the latter offence you will probably be moved from a larger to a smaller station, but if you kiss your neighbour's wife, you are compelled to retire from the service on a trifling pension.

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HEREDITY IN RELATION TO LIFE ASSURANCE.

In his presidential address to the Life Assurance Medical Officers' Association, HERMANN WEBER Esquire, M.D., F.R.C.P., pointed out that the non-appearance of parental disease in different children is not positive proof always that they have not inherited disease, since occupation, habits of life and climatic influences may so react on the germ, which is endowed with invisible peculiarities for good or evil, as do not call it into manifest activity or hold it in complete abeyance for one, two or more generations until the arrival of conditions favorable to its development, when the disease may reappear with all virulence in the 2nd, 3rd or 4th generation. Hence he advises enquiry into the life-history of the uncles, aunts and grandparents as well as of the parents of the "proposer," and divides assurance "lives" into three classes: (1) *Average lives* where unless carried off by infectious diseases or accidents the greater number die between 60 and 72 years of age (2) *Long lives*, which are of great and profitable importance to insurance companies, range from 75 to 90 years and more, and may be cut short by infectious disease and accidents; but they frequently survive even these that the *average lives* succumb to, and in which both malignant and constitutional disease take a much slower course in them. A peculiarity in some of these long-lived families is that all the organs and functions do not retain their vigor in an equal degree, while old age shows itself sometimes even early in the hair, teeth, senses, generative organs or even in the memory and higher functions of the brain: but insurance offices need not mind them much, as these organs and functions are not vital, and even flaws, such as quiescent phthisis may be counter-balanced by good points such as concommitant gout; since gout is somewhat antagonistic to phthisis. (3) *Short lives* constitute these families, the majority of whose members die before 60, whether from recognized diseases or from ill-defined conditions

coming under the head of a general breakdown. Insurance offices have to be very careful with members of such families, which more often prove disastrous to them. Children under age, belonging to such families are a particularly heavy risk. Such lives must either be declined or insured only for a limited period under a special system as "under average" lives; but as it would be immensely difficult to lay down hard-and-first rules for rejecting or accepting such proposals or adjudging the amount of extra premium that must be paid since there are many exceptions in members of such short-lived families, and change of occupation, of habits of life and of abode, and still more of the country, exercise a powerful influence on the constitution, and in order to take them as "good lives," their personal history and condition as well as their surrounding influences must be good.

Next as to special conditions and recognised diseases, he notes that (4) *Phthisis* is a powerful element, whose degrees of risk, however, vary considerably according to (*a*) the number and nearness of relatives who have died from it, (*b*) age of the proposer, and (*c*) his personal condition, past history and manner of living which have many varieties. If only a brother or sister or some collateral has died and a good proportion of the others are surviving, the risk is almost *nil*, or may be only slightly increased, provided the elements (*b*) and (*c*) are satisfactory; but if one parent and many collaterals have died, the risk is already greater and is further increased, if besides parent one several brothers and sisters have died, while it is still more so if both parents have died and *most* so if in addition to the parents, one or two grandparents or their brothers and sisters have been victims of the disease. (*b*) The risk of inheritance is greatest up to 30, diminishing gradually up to 40, becomes comparatively small from 40 to 50. (*c*) A thin, weakly person with a phthisical family taint ought to be rejected, while to be accepted the proposer should lead a healthy active life, devoid of bad habits and besides having the appearance of health and strength, he ought to be, and to have been, free from hæmoptysis, pleurisy, glandular inflammations and swellings, affections of the apices, frequent catarrhs or so-called scrofulous, but generally tuberculous, diseases of the joints. The tendency to (5) *emphysema* and (6) chronic *bronchitis* has a decided element of heredity, but mostly for death in later life. If only one parent has died of these at over 65 years of age, the risk need not be provided against, but if there are several deaths below that age, a moderate extra should be charged or an endowment policy proposed. (7). Fixed rules cannot be laid down for *carcinomatous* diseases, but every case requires consideration on its own merits, as though, decidedly inheritable cancer affects females much more than males, and usually occurs in the latter part of life, it sometimes appears earlier in the offspring than it had done in the parents, and kills females earlier than it does affected males. So that a young person may have easier insurance terms than one near middle age. (8). If only one of the parents has died from *diabetes*, which is inheritable, and the proposer is below 40, a moderate extra should be charged; but if he is above that age and his personal health, manner of living and other circumstances are satisfactory, the extra may be waived. Proposers under 30 should be declined or accepted only with a heavy increase. (9) If *glycosuria* shows itself in a proposer tainted with heredity, a heavy addition is necessary, unless he belongs to a long-lived family; but every case of glycosuria, that cannot be controlled by dietetic management, ought to be declined. (10). *Gout* is so complicated a question in which the personal element is so important, that every case demands individual consideration. To a female proposer easier terms may be given. A life with gouty inheritance that has already suffered from gout, demands an extra more or less heavy, for life or for an endowment policy, but if he be middle-aged and a small quantity of albumen be found in his urine, he should be declined, more particularly if he is not very careful as regards eating and drinking, and does not lead an active healthy life. (11). Though there have been several early deaths from *rheumatism*, which is much more frequently acquired than inherited, still more frequently than not, rheumatism is compatible with longevity and so also with (12) *rheumatoid arthritis* or arthritis deformans; but as there is a kind of alliance between (13) *rheumatic fever*, which is decidedly inheritable, and phthisis, protection by an 'extra' is required if the proposer is young and has lost near relatives from the disease. (14) Heredity is not adequately appreciated with regard to the *heart* and *blood vessels*. Angina pectoris, fatty degeneration and valvular diseases of the heart may be traced through several generations; but this last is due partly to the hereditary element in rheumatic fever in earlier life and partly to atheromatous lesions in the later stages of life. The questions regarding apoplexy and paralysis show that the proposal forms acknowledge the hereditary tendency of degeneration of the small blood vessels, not only of the brain but also of other organs of the body. (15) A number of morbid tendencies, such as hæmophilia, hæmorrhoids, biliary and renal concretions and Bright's disease, do exert a hereditary element, no single one of which is strong enough to warrant an 'extra' charge, but if a number of such flaws co-exist or have occurred in the same history, the case requires a more serious consideration. (16). Then there are other less tangible, but for all that, very risky hereditary conditions (such as unusual susceptibility to some microbic poisons with fatal results) which cause severe loss to Insurance Companies but scarcely justify loading on a premium. (17). An important matter is the family tendency to a strong or a weak brain, since the *nervous system* offers the most remarkable instances of heredity in all its functions, and a vigorous brain can pass unhurt through great emergencies under which a weak brain generally breaks down from "shock" or "overwork." But so long as such lesions are not associated with paralysis or other flaws with a special tendency to shorten life, assurance officers can scarcely protest against them as risky. (18). *Dipsomania* and other forms of alcoholism allied to it are doubtless hereditary, and their occurrence among the parents or older brothers or sisters, should induce the strictest enquiry into the personal history, manner of living and *all* the surroundings of the proposer to protect the company against risk. More especially, as a curious circumstance of their heredity is, that the effects of alcohol are mostly very similar in the children and in the parents, even when the parents died while the children were yet very young. In some, epilepsy or an inordinate craving for drink, that no moral influence can subdue, in others a suicidal, homicidal or kleptomaniacal tendency.

In these insanity and in others peculiar mental aberrations. (???). But all inheritable defects are unsatisfactory for life companions! What exophthalmic goitre is inheritable and regularly in extra, varying with the other circumstances of the case, and the possibilities of change of air with avoidance of worry and over-exertion; but the victims of paralysis agitans mostly live long.

The tendency to epilepsy may show itself in the children in various taints, either as epilepsy, or insanity, or dipsomania or uncontrollable passions, &c., that rapidly wear out a highly strung nervous organization, but tabes, which is not merely the effect of syphilis, is less inheritable than epilepsy, and so on.

Then there are peculiar forms of trembling and tremors that occur in some family histories, and have led to the proposer being declined from fear (a wrong one) that the trembling was due to alcoholism, or commencing disease of the centres.

Therefore it is absolutely necessary to carefully judge every case on its own merits, and take all points (especially affections of the nervous system) connected with the proposer into consideration, as also to closely look into marriage ties, since intermarriage of tainted relatives *always* increases the risk. This relates to all morbid taints, but most prominently to those of the nervous system.

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THE HISTORY OF PLAGUE IN HYDERABAD.
SOME IMPORTANT OBSERVATIONS.
II.

In our issue of 16th March we traced the history of the plague in the Nizam's dominions up to the 22nd February, when the Plague Commissioner, Surgeon-Colonel EDWARD LAWRIE started on a tour of inspection in the infected districts.

Homnabad and Kalliani were found free from plague, Sirsi was found infected; 33 deaths having taken place; the search parties employed under Dr. NAIDU had discovered no cases between this place and Hyderabad.

In company with Mr. STEVENS, the Commissioner, visited all the plague-stricken villages about Gunjoti, and arrived at the conclusion that this district was the most important focus of infection in the Nizam's dominions.

In this district 550 deaths from plague have been reported as follows:—

Gunjoti ...	...	...	233
Umerghi	...	...	172
Terrori ...	...	...	14
Chincholy	...	...	1
Bulsoor ...	...	...	42
Sirsi ...	...	...	41
Maraj ...	...	...	16
Nagaral ...	...	...	3
Others ...	...	...	12
	Total	...	550

But by those best qualified to judge, this number is from 250 to 400 short of the actual number of deaths that have taken place.

In these infected villages all the orders of the Government of India with regard to evacuation and disinfection had been carried out by Mr. STEVENS.

DR. LAWRIE was struck by the resemblance of the cases he saw to disease produced by inoculation with some putrid organic (probably animal) poison as in "dissecting wounds, though he admits the resemblance is not complete. He records an interesting case where Hakim COWASJI while dressing a case of gangrene, inoculated himself with some of the discharge through a scratch in the ring finger of the left hand, and developed symptoms almost identical with plague; he had a large bubo in the left arm-pit and an abscess under the pectoral muscle.

Many of the plague cases had superficial suppurating buboes, the discharges from which infected directly the clothes, bedding, and floors of houses.

From the 25th February, systematic examinations were made of the dust and scrapings of the floors, walls, and roofs of houses in various villages. The floors are mostly constructed as follows: the earth is raised, rammed in and "leaped" over (plastered over with liquid mud mixed with cow-dung).

At first only the houses marked as infected were examined. Accident, however, revealed the fact that the plague bacillus was to be found in large numbers of the floors of houses supposed not to be infected, and further investigation showed that in Gunjoti 50 per cent. of such houses were actually infected.

That the bacillus found in these supposed uninfected houses was actually the bacillus of plague, was proved by inoculation experiments.

The following facts were established by the examinations of, and inoculations with, the plague bacillus:—

(1). The plague bacillus was invariably found in the dust and scrapings of the ground of houses known to be infected, *i.e.*, houses in which plague patients had been ill or had died. Infected houses were examined in Sirsi, Gunjoti, Umerghi, Kajuri, and Bulsoor.

(2). The plague bacillus was found in the dust and scrapings from the floors of more than 50 per cent. of the houses which had previously been regarded as uninfected.

(3). A healthy rat was inoculated with dust scraped from the ground in a supposed uninfected house (No. 28 uninfected) in which the plague bacillus was found to be present. The rat died within 36 hours, and on *post-mortem* examination it exhibited the usual signs of plague, *viz.*, enlarged glands, congestions and hæmorrhages, and the plague bacillus was found in abundance in the peritoneal cavity, in the glands, and in the blood.

(4). The plague bacillus was found in grain which had been lying on the ground in an infected house

(5). The plague bacillus was not found in the dust or scrapings of the roofs and walls of any of the houses examined.

(6). The bacillus was not found at a depth of more than an inch below the surface of the ground.

(7). The plague bacillus was found in dust taken from the floor of a house (No 28, uninfected) immediately after the ground had been heated by igniting on it a thin layer of cow-dung fuel sprinkled with kerosine oil. A rat inoculated with dust from this floor immediately after the burning remained well until it escaped from its cage on the fourth day.

(8). In milk inoculated with dust containing the plague bacillus, a growth and multiplication took place. The day after the inoculation from one to two bacilli to a field

could be counted, on the fifth day from 45 to 55. In five days therefore each bacillus had increased to about 50.

(9). The plague bacillus was not found in the dug up portions of the ground (floors) after they had been burnt in the kiln method.

DR. LAWRIE thinks that these facts tend to prove his contention that the virus of plague is most probably a putrid animal poison which falls to the ground, and does not spread through air, or even through water, unless it is excessively filthy, but is taken into the human system mainly by inoculation.

They further pointed the way to a uniform plan for the destruction of the plague infection.

DESTROYING THE PLAGUE BACILLUS.

The plan adopted was the burning of the floors and scrapings of the lower parts of the walls.

After considerable experience, what is called the kiln method was introduced by Mr. STEVENS.

In this method the floors of the houses are dug up to a depth of one and a half inches; the dug up material is carefully removed to a short distance from the house and made into a kiln, with cow-dung fuel underneath and all round it, the lower layers being sprinkled with kerosine oil, this is set on fire and allowed to burn itself out.

With the aid of the microscope Dr. LAWRIE holds that it is always possible to determine if a house is infected; but as 35 minutes at least is required, the method could not be applied in extenso in large villages, and it was therefore decided that the only safe plan was *to* burn *all* the floors in the infected villages.

All the plague-stricken villages in the Gunjoti district have been evacuated and the isolation and segregation camps are in charge of competent medical officers, while the work of burning the floors is proceeding apace under the direction of Mahomedan gentlemen, who are thoroughly interested in the work.

The kiln method has met with the entire approval of Sir KHURSHED JAH'S Taluqdar, and of all the village officials and villagers.

It will be an anxious time for the Nizam's advisers, when the time comes for the re occupation of the evacuated villages, and any sign of recrudescence then will be eagerly looked for, nor can the danger of re-infection from Sholapur be overlooked.

PROPHYLACTIC INOCULATION.

Dr. LAWRIE is anxious that every opportunity should be given to test HAFFKINE'S prophylactic inoculations in the Nizam's dominions. To this end we learn that Professor HAFFKINE has trained Dr. MULLANAH and Mr. SYED MAHOMED in his laboratory; and that they will carry out the operations in the Hyderabad State.

There can be no doubt as to the wisdom of this step, and we have every confidence that the inoculations will, if possible, be carried out in such a way as to throw as much light as possible upon their true value. We will look forward to the results with interest. Our chief fear, or rather hope, however, is that the measures already taken by Surgeon Lieutenant-Colonel LAWRIE and his coadjutors have been so practical, systematic, and thorough, that there will be no chance of subjecting the inoculations to a satisfactory test for the plague will cease.

THE LIFE AND TIMES OF THOMAS WAKLEY, FOUNDER OF THE *LANCET*.

ABOUT this time an event occurred which was eagerly seized upon by WAKLEY. On the 12th February 1831, there appeared in the *Lancet* a letter stating that the surgeons of His Majesty's navy had been notified by circular that they were not to attend the King's levées; it subsequently appeared that the obnoxious circular had been issued under a grievous official mistake, and it was almost immediately rescinded.

WAKLEY stigmatised the circular as a deliberate and cold-blooded insult, which the profession as a whole was bound to resent, and he urged in the *Lancet* that the following Monday, at the Royal College of Surgeons, the occasion of the delivery of the Hunterian oration would be a good time and place for a public demonstration of sympathy as well as for a public decision upon the steps to be taken towards the annulling of the offensive order.

In consequence a large number of members attended at the College to protest; this assembly was an entire innovation amounting to an assertion that the Commonalty, and not the Council, could decide the business of the day.

Before the Council with the Hunterian Lecturer appeared, two resolutions had been put and carried; the Council, however, refused to receive them, and the meeting terminated by WAKLEY saying that at any rate the members had done *their* duty and it remained for the Council to do *theirs*.

The action of the Council being considered unsatisfactory, WAKLEY the following week begged the profession to again attend at the College to decide upon what course should be taken.

The Council issued a notice to say that the doors would not be opened till a quarter to four, and that no public discussion would be allowed.

As soon as the doors were opened, WAKLEY and his followers filled the theatre and a scene of considerable confusion followed.

At four o'clock the President, Council, and a posse of Bow Street officers entered the theatre, the uproar was so great that no one could be heard.

A Bow Street officer was sent to order WAKLEY out, but WAKLEY said the Council had not the least power to remove him, whereupon the officer returned saying: "Mr. WAKLEY knows perfectly well what he is about."

As the uproar continued, the President and Council left. WAKLEY then addressed the meeting and implored them to preserve a quiet behaviour, a Chairman was elected and WAKLEY continued his speech, and resolutions were passed condemning the action of the Council.

Some minutes later Mr. BELFOUR, the Secretary, entered and handed WAKLEY a paper bearing an order from the President for him to leave the theatre. He refused, when suddenly a number of Bow Street officers rushed in and seized him by the collar, arms and legs and proceeded to expel him by force, in the tumult that ensued one of them aimed a blow at his head with a truncheon which providentially missed and fell upon his shoulder. Upon WAKLEY'S removal the other members proceeded with the business for which he had convoked them and formed a resolution to wait upon the Lord Chamberlain.

WAKLEY was unable to get a warrant against the Bow Street office who had assaulted him, and these legal proceedings terminated.

It is characteristic of WAKLEY that after one powerful outburst of rage, his allusions to the personal indignity that he had undergone became infrequent and dispassionate, after the first feelings of natural wrath and insult had subsided he was not ungrateful to his enemies for providing him with so forcible a proof of his contention that they were autocratic, careless of the rights of their commonalty and unscrupulous in their methods of preserving their own position as irresponsible rulers.

During the next three years WAKLEY saw reason to change his methods; he had done as much as he could in his private capacity; he saw that he could not expect much from the co-operation of the profession, he decided to give a larger scope to his work of reform, to transfer the scene of the struggle from Lincoln's Inn Fields and the columns of the *Lancet* to Westminister, in short to aim at the introduction of a new Medical Act.

WAKLEY'S life and interest was so much bound up in the *Lancet* that there is but little to say about his private affairs. One of the first persons to recognise the great position that he was securing for himself and the great future before the *Lancet* was his father-in-law, Mr. GOODCHILD; he came to the assistance of his literary

venture; this timely aid turned the scale of fortune in WAKLEY's favor, and as soon as circumstances permitted, he left the house in Norfolk Street and settled in the pleasanter neighbourhood of Thistle Grove. In 1828 he moved into No. 35 Bedford Square, the house that is associated with all his public life as Member of Parliament for Finsbury and Coroner for Middlesex.

WAKLEY was an open-handed, cheery, and humerous man; he delighted in good company, and at his fortnightly gatherings for whist or chess he gathered round him a large number of staunch friends, who were attracted by his eloquence, his audacious defence of popular rights, his determination, self-confidence, and kindliness of manner. He was assiduous in the reception of his political allies, medical and lay, and paved the way carefully for his future election.

WAKLEY'S great aim in entering Parliament was to reform medical abuses; he felt that the medical profession needed a voice within the "House" to make medical matters, often of a severely technical kind, distinct to the comprehension of the legislators.

This one object had not sufficient interest for the electorate to enable him to command their votes, so he entered into the general reforming spirit of the time and pledged himself to support a large number of general measures.

He was selected as a proper person for a seat in the first Reform Parliament by JOSEPH HUME and WILLIAM COBBETT. After failing twice he was finally elected member for Finsbury in January 1835.

WAKLEY was very literal as well as very honest in his interpretation of his Parliamentary duties; he was at first an infrequent speaker, although an assiduous attendant at Westminster, but his taciturnity was dictated by the fact that the special causes which he had been instructed by his constituents to plead did not come before the 'House" nor did matters affecting the medical profession present themselves.

Within six months, however, a great opportunity came for a display of his talents as a speaker, and he was not slow to seize it.

The case was that of the Dorsetshire labourers, one of whom were arrested and tried for the crime of "unlawfully administering a secret oath." They were sentenced, to the astonishment of the country, to seven years' transportation.

WAKLEY'S speech in their behalf lasted two hours and a half, and throughout the whole time he held the closest attention of the "House." When he resumed his seat the general applause was so hearty and unrestrained, that he could not but feel that he had achieved a real oratorical triumph, and in the most critical assembly in Europe.

Although the motion was lost on a division, the speech had a good result; the matter was not let drop, and within nine months the laborers had received a free pardon.

WAKLEY rose to make his first great speech a comparatively unknown man, with a record not calculated to win him the good graces of an assembly ever jealous of the manners of its members. He sat down with an undisputed claim to first class oratorical powers, and with a recognised position in the "House" as a fit and proper person for its Councils.

COMMENTS AND NEWS.

THE TAMASHA OF DR. CROMBIE'S DEPARTURE.

BRIGADE-SURGEON LIEUTENANT-COLONEL ALEXANDER CROMBIE, M D., I. M. S., late Surgeon Superintendent of the Calcutta European General Hospital, and general medical practitioner in this city, has retired from Government service and has gone to the land of oblivion, the goal of most retiring officials. For 26 years he has had a good time in the Indian Medical Service. If a few wire-pullers and office-seekers of the Bengali community have given our departing friend some small degree of satisfaction by filling a hall with students to wish him good-bye and to tender him the customary Oriental lip-salve of verbose adulation, then Dr. CROMBIE has earned a "reward." The two native meetings that were "got up" for Dr. CROMBIE, were a farce in every sense of the term. The address presented to him was a pitiful piece of water-coloring of the usual Indian style. To attempt to cause such tinsel tamashas to pass for an expression of universal good-will and professional confidence, is a parody on facts and common sense. To describe Dr. CROMBIE'S career as a success "in the cause of science, medical education and medical literature," is simply to belie his own modest assertion that he had "done very little" in any of these directions. We maintain that the entire absence of the non-official European practitioners from the "address" meeting and the "union" in the India Club, in spite of all having been invited to be present, and further the absence of nineteen twentieths of the Indian practitioners from both these functions, prove that the object for which they were "got up" was not a popular one. We maintain that the closing chapters of Dr. CROMBIE'S connection with the Presidency General Hospital,—the public disapproval of the working of the hospital so frequently expressed in the daily press, the lesson to be drawn from the prohibition of his successor from engaging in private practice, the barrenness of clinical reporting from the General Hospital, the large amount of official time spent *outside* the hospital—all these facts serve to emphasise the assertion that the statements made by a few time-servers may well be relegated to the realms of imagery and Oriental verbosity of a purely lip-adulation type. It is not fair that hypocrisy of this stamp on the part of a few should pass counter for genuine and well-merited praise, and in view to preventing these somewhat frequent misleading exhibitions of public *éclat* towards medical officials, many of whose aims and merits may be summed up in the carrying out of Lord CHESTERFIELD'S advice to his son—"Make money my son, &c., &c." and who allow their public duties a very second-rate consideration where the shaking of the branches of the "Pagoda Tree" of private practice is concerned—we find it necessary to call a spade a spade. Surely the recollections of the meanness and double-dealing of some of the official ringleaders of the Indian Medical Service Congress, and the *exposé* about the spiteful tyranny of the methods employed by some officials when countersigning the medical certificates of private physicians, ought to serve to recall the innate character of many an official, and these lessons should never be forgotten by non-officials till a more honest and wholesome atmosphere pervades the life and conduct of medical officials in their demeanor towards their non-official brethren.

MUSSOORIE DOCTORS, OFFICIAL AND NON-OFFICIAL.

THE following parody on a familiar rhyme was suggested by reading the petition of nine Mussoorie medicos, who complain that a tenth member of the medical faculty, to wit,

the Civil Surgeon of that station, in (thanks to State aid) seriously interfering with the practice of the nine private doctors :—

THE LEARNED DOCTORS.

I.

Ten learned doctors, sipping Cean wine,
One grew nervous, then there were nine.

II.

Nine learned doctors, wrangling in debate,
One turned homœopath, that left eight.

III.

Eight learned doctors, "At home from eleven,"
One went rinking, then there were seven.

IV.

Seven learned doctors, medicines they mix,
One sold his practice, then there were six

V.

Six learned doctors, keeping folks alive,
One prescribed wrongly, then there were five.

VI.

Five learned doctors, alcohol forswore
One kept the pledge too long, then there were four.

VII.

Four learned doctors, eager for a fee,
One "advised gratis," then there were three

VIII.

Three learned doctors, heavy work to do,
One fled to Debra, then there were two.

IX.

Two learned doctors, quarrelling like fun,
Fought each other on the Mall, that left one.

X.

One learned doctor, triumphing alone,
Turned Civil Surgeon, then there were none

(Alas! no learned doctors.)

The above doggerel appeared in our northern contemporary, *The Morning Post*, over the initials A. N. G., and emphasizes our contention of the unfairness and handicapping of private enterprise by State competition still further. "There is something rotten in the State of Denmark" when nine doctors as well qualified as the Civil Surgeon and with more local acquaintance and knowledge are unable to hold their own against him, owing to numerous advantages which Government gives its officers. This question, however, will soon engage the attention of the Government of India, and then perhaps some British ozone in the precincts of St Stephen may kill the official bacillus altogether?

THE BOMBAY GOVERNMENT AND THE PLAGUE.

As we were the first medical journal to publish the result of MONS. HAFFKINE'S prophylactic method and to pronounce definitely in its favor, we can regard with certain feelings of self-complacency the recent change of front of the Bombay Government.

We hear that inoculation has at length been recognised, and further, that persons who have been inoculated within four months are to be exempted from segregation

The attitude of the Bombay Government reminds us of the negro potentate, who, when visitors appeared at his court, regarded them in silence with a fixed and steady stare which lasted for an hour or so; after undergoing this ordeal the visitors were informed that the king saw them.

The Bombay Government has at last condescended to *see* MONS. HAFFKINE and his prophylactic inoculations.

It is of course unfortunate that a very forcible eye-opener, had just been administered to the Government in the shape of serious riots, the result of long pent up feelings of irritation and resentment in the native mind; and though we have no wish to even suggest that the Government acted under a sense of coercion, there can be no doubt that had they adopted their present methods at an earlier date, these riots would not have occurred.

This in itself amounts to a grave charge of mal-administration, we have before remarked that in this matter the religious and caste prejudices of the native community were by no means a negligeable quantity, this has been proved over and over again, and the Government must have been well aware of the existence of a smothered feeling of dissatisfaction and resentment, and the direction in which it was tending.

It is difficult to understand the position so long held by the Government and the stubborn obstruction to prophylactic inoculation, to say that inoculation was on its trial and could not be accepted as proved, is simply no answer at all.

To refuse to put a thing to the proof, because it has not been already proved is absurd; but little advance would be made in modern scientific medicine, or indeed in anything else, if such a narrow-minded rule of conduct was universally followed.

The Bombay Government had the means and opportunity of putting this matter to the test, and of deciding a question, the importance of which cannot be overestimated, once and for all; and it is not too much to say that this was the least that was expected of it by all civilised communities.

It has already failed to do its duty in this matter, to humanity in general, and history will no doubt in the future tell us why.

In the meantime, the brunt of popular indignation has to be borne by the Plague Committee, and they are a much maligned body, if they are entirely blameless

THE INSPECTOR-GENERALSHIP OF CIVIL HOSPITALS, BENGAL

THIS important administrative office has seen so many changes in its incumbents during the past half decade that the interests of Indian Medical Service officers have suffered greatly thereby Not only has the service suffered but our hospitals, our medical educational institutions, and of course the public, have all felt the harmful influence of a constantly changing administration, a lack of continuity in medical policy, and a lack of knowledge of the personal abilities and fitness of officers for certain onerous appointments. Instead of having a medical administrative head, the Sanitary and Medical Departments of Bengal have been governed and directed by the Bengal Secretariat. All these difficulties have arisen through the want of a strong hand to guide the helm in medical matters in Bengal. Colonel ROSS was an excellent Surgeon-General, but he was made to feel the pressure of Secretariat interference, and strong as he was, he broke down in health, and to his able plans for reform all fell through. Now we find Surgeon-Colonel HENDLEY installed at the head of affairs medical in Bengal. Dr. HENDLEY'S reputation as a most vigorous, painstaking, and able administrator, is most encouraging to those who look to the fountain head for the initiation of some settled plan of hospital and educational work, and for an honest and meritorious method of filling vacant appointments in our public institutions. Recently things have gone on at a scandalous pace of mismanagement, and the Bengal Secretariat is seriously to blame for its reckless disregard of the public needs of our institutions, inasmuch as it has recently overridden the recommendations of the medical department, and filled a few excellent posts by men utterly unfit to hold them, and by such arbitrariness has imperilled the success of more than one public institution in Bengal. We cordially hope

[illegible] will be able to obtain high and important offices for the full [illegible] years, and that the Calcutta Medical College Hospital and the Presidency General Hospital will be thoroughly [illegible] in regard to their duties to the public and to medical education. We trust also that Surgeon-General Hunter will boldly consider the question of prohibiting State-paid doctors from engaging in general and family medical practice in Calcutta.

THE BLOOD IN MALARIAL FEVER. ANOTHER VIEW OF THE CASE.

We have seen that Hans Ziemann denies phagocytosis in malarial fever. H. Vincent, professor at Val-de-grace, medicin major of the second class holds a different opinion. (We quote from the same journal as before):—

In a paper entitled "The Role of the Leucocytes in Malaria," he says that he found after many detailed observations that a considerable leucocytosis occurred, in exactly the same way, in regular quotidian, tertian, and quartan ague, and chiefly at the beginning of the attack.

That this leucocytosis is so transient that it may easily be overlooked.

That it gives place to a hypo-leucocytosis, so that often the number of the white blood corpuscles is less by two or three times than it was before the attack, and on the following day it may still further decrease if the patient has not taken quinine.

This initial increase and later decrease of the leucocytes is so pronounced that it is sometimes possible to determine the exact stage of the attack by a simple examination of the blood.

In malaria it is the work of the large leucocytes with a single nucleus to destroy the exciting agents of the disease.

The question whether the amœbæ are still alive at the beginning of this process Vincent answers in a decided affirmative, for the very lively movements of the pigment, which is plentifully distributed throughout the body of the parasite, seems to point to a suffering (?) condition.

Further, fully developed plasmodia with lively amœboid movements were observed in the leucocytes 22, 36, and even 48 hours after the blood was taken, while shortly after the taking of the blood, no developed plasmodia were found but only black pigment and a few leucocytes.

This seems to prove with certainty that the amœbæ can grow and develop in the white blood corpuscles, outside of the living body

FACTS ABOUT SMALL-POX AND VACCINATION.

The following points have been embodied in an official circular issued by the Council of the British Medical Association.—

1. The mortality from small-pox is much less now than in pre-vaccination times.

2. The greatest diminution in the small-pox mortality is found in the early years of life, in which there is most vaccination.

3. In countries where there is much vaccination and re-vaccination relatively to the population, there is little small-pox.

4. In classes among which there is much vaccination and re-vaccination there is little small-pox.

5. In places where small-pox prevails, it attacks a much greater proportion of the unvaccinated than of the vaccinated, especially where the vaccinations are comparatively recent.

6. In houses invaded by small-pox in the course of an outbreak not nearly so many of the vaccinated inmates are attacked as of the unvaccinated in proportion to their numbers.

7. The fatality-rate among persons attacked by small-pox is much greater, age for age, among the unvaccinated than among the vaccinated.

8. It cannot be truthfully alleged that independently of vaccination small-pox is a milder disease now than in former centuries.

9. The degree of protection conferred by vaccination corresponds to the thoroughness with which the operation has been performed, three or four marks being much better than one or two, and a large mark much better than a small one

10. Sanitation cannot account for the facts above set forth.

11. Though isolation of small-pox cases in hospitals is a useful auxiliary to vaccination, it is no substitute for it.

12. Vaccination is very safe.

13. Calf lymph is now available to boards of guardians, etc., for the vaccination of every child in this country.

THE LATE EXAMINATION FOR THE ARMY MEDICAL SERVICE.

Says the *British Medical Journal*:—"We published last week the results of the recent examination, which showed that, notwithstanding the undoubtedly clever official expedient of mixing up the Indian and army examinations together, only 21 candidates were secured for the latter, to fill the advertised 40 nominal vacancies. The result of the new scheme must be very disappointing to the official opponents of the Army Medical Services, who had hoped by a little manipulation to stave off reform. Under the new system the public are not told how many competitors went up for each branch of the service, and what was the proportion of failures; but it is not difficult to see that, but for the new scheme, the last examination would have been an even more lamentable fiasco than its predecessors. There appear to be good grounds for the inference that a considerable number of the 21 successes for the army were drawn from those who had not been successful in obtaining commissions in the Indian Service, for the highest candidates for the former very suggestively just follow after the lowest for the latter. Then, quite half of those successful in the army did barely more than secure qualification by a minimum of marks, so that it is hard to say whether the failure in quality is not even greater than in quantity. It is rumoured that there were originally 48 army candidates, which, if true, proves that more than a half were found physically and professionally unfit. We think the public may take it that had not a certain proportion of the rejected of India been secured for the army, there would practically have been a mere handful of candidates for that service. To what a miserable state has the Army Medical Service fallen? Mr. Brodrick announced to the House of Commons last week, as was stated in the *Journal* of February 19th, that the steps which will be taken to put the Department in a better position will shortly be announced, and it is certain that reform cannot be long delayed.

THE WONDERFUL MALARIAL PARASITE.

The following extract from the *Munchener Medicinische Wochenschrift* shows in what a state of inextricable confusion the minds of experts still are, regarding what to the ordinary observer would appear to be some of the simplest details.

Hans Ziemann, of Heligoland, in a paper entitled "New Observations on Malaria and the Blood Parasite of Malaria."

In this paper he confirms the results of previous observations which were communicated by him to the Naturalists Society at Frankfort in 1896.

"The growth of the malarial parasite is concurrent with the breaking up and proliferation of pigment, which, after the resulting division, again surrounds itself with a colourless zone and the remains of the protoplasm of the original body.

No so-called spores are formed.

There is no disappearance of nuclei and nucleoli as MANNABERG asserts:

LAVERAN'S bodies are merely moribund or sterile forms.

The curative effect of methylene blue is disputed when spontaneous cure occurs, phagocytosis takes no part in it.

The mode of infection is in no way yet cleared up.

The parasites of tertian and quartan fever are similar, but morphologically different forms.

Some of these data strike at the very root of what has hitherto been accepted without question. The formation of spores was considered such an important characteristic that the generic name Sporozoa was given to the parasites.

The bodies known as LAVERAN'S are the crescentic forms whose *development* we believe forms the foundation of all the hypotheses of MANSON and his followers.

Clearly HANS ZIEMANN must be ruled out of court, or our experts must alter their views.

THE LATE SIR RICHARD QUAIN.

THE *Times*, in a notice of Sir RICHARD QUAIN, whom it speaks of as one of the most conspicuous figures of his generation, tells the following story of his early career: "Quite early in his career he was requested by Mr. WAKLEY, the then Coroner for Middlesex, to make a *post-mortem* examination in a case, which attracted considerable attention at the time. A man who for some months had been in a desponding frame of mind, came one day to his wife, and displaying to her a piece of paper labelled 'arsenic,' said that he had swallowed what it contained; and that 'it was all over with him.' The man was taken to a hospital, where the resident officers applied all the most approved remedies for arsenical poisoning with great vigour, but the man died in spite of them. The druggist, from whom the parcel had been procured, said that the man had asked for arsenic, but in consequence of his manner and appearance, cream of tartar had been supplied under an arsenical label. A quantity of arsenic was, however, found in his stomach. Not satisfied with this Dr. QUAIN pursued his enquiry and found that no arsenic had passed out of the stomach into the intestines. He inferred that what was found had been introduced by the stomach pump or some similar means after death had occurred, and it was ultimately shown that this had been done by the resident medical officers at the hospital, who seemed to have some notion that the case was not one of arsenical poisoning at all and who had endeavoured to conceal the error into which they had fallen. The acuteness with which Dr. QUAIN suspected the truth, and the skill with which he brought it to the test of experiment, were much appreciated.'

LINGUISTIC QUALIFICATIONS IN INDIAN MEDICAL APPOINTMENTS.

IT is remarkable how coincidences sometimes happen. We are informed—perhaps incorrectly—that Colonel JARRETT, the famous military specialist in Oriental languages, has been appointed Major-General of Division of Aldershot! His chief claim to this important command being his exceptionally high linguistic attainments!! We now learn with some pleasure and small surprise that Surgeon Lieutenant-Colonel GEORGE SPIERS ALEXANDER RANKING, M.D. (1879), M.R.C.S., Eng. and L.S.A. Lond. (1874) has been elected to be the successor of Dr. CROMBIE, as Medical Superintendent of the European Presidency General Hospital, Dr. RANKING, his special qualifications of a certain kind, inasmuch as he possesses a facile knowledge of Oriental languages and a versatile genius in theatrical and other performances. Dr. RANKING has been popularly known for some time as the Secretary to the Board of Examiners in Oriental Languages, and the general public of Calcutta has been accustomed to regard him as a most talented amateur actor. It is worthy of note that popularity in these always commendable accomplishments, have apparently counted for something in one of the most coveted medical appointments in Bengal. From a professional and a public point of view, we would have thought that for so important a position as that of Chief Physician to a large civil hospital, the Bengal Government would have displayed a keen desire to select a gentleman of large practical experience in the profession, but it seems that just as in Aldershot so in Calcutta strange things happen, in fact in medical appointments in Bengal under the Secretariat *régime*, it is the unexpected that generally happens.

A STORY OF RICORD.

WE read in the *Philadelphia Medical Journal* a story of the late Professor RICORD, of Paris:—"In a little town near Orlean lived, more than 50 years ago, a celebrated bone-setter, curing all the ills of humanity, and who enjoyed a great reputation in that country; no doctor had ever attempted to supplant him. One day, however, a young doctor, fresh from the learned faculty, arrived in the town and installed himself close by the bone-setter. It was not long before our *confrère* found out that his diplomas were of little use in competition with his rival. One day he was called to see the blacksmith, who was very ill, and, after a proper examination, he prescribed for him according to the rules of his art and said that he would return the following day. That same evening, however, the bone-setter stepped in and told the patient that if he took what had been ordered for him he would be dead before the moon set a second time. Needless to say, the bottles were thrown out, and the charms of the medicine-man substituted. The blacksmith got well. Exposed to constant affronts and a thousand-and-one annoyances, our unfortunate doctor determined to abandon the struggle, and returned to Paris with only five shillings in his pocket. He died a few years ago, leaving a colossal fortune, a brilliant renown, and a celebrated name, and a statue has been erected to him opposite the hospital where he worked the greater part of his life in the interest of humanity and science. His name was RICORD."

PLAGUE IN BOMBAY.

THE number of deaths in Bombay from plague for the week ending 22nd March were 1,259; for the week ending 29th March, 978; and for the week ending 5th April 799.

From this it appears that a considerable reduction has set in since the 22nd of March, this is by some attributed to the heat of the weather.

A sudden fall in the total mortality for Bombay occurred, on the 27th March; for the previous 7 days it had been over 300, but on the 27th it dropped to 254, and continued to fall to the end of the month. The following are the mofussil statistics for the week ending 5th April.

Kurrachee, 8 cases and no deaths; and Poona, 7 cases and 3 deaths. In the districts Kaira had no cases and 1 death; Broach, 1 case and 1 death; Surat, 75 cases and 62 deaths; Thana, 84 cases and 48 deaths; Khandesh, 1 case and 1 death; Nasik, 14 cases and 17 deaths; Poona, 7 cases and 6 deaths; Satara, 36 cases and 34 deaths; Sholapore, 11 cases and 8 deaths; Kolaba, 34 cases and 45 deaths; Ratnagiri, 43 cases and 37 deaths; and Belgaum,

46 cases and 36 deaths. In the Territories, Baroda had 175 cases and 148 deaths; Kattiawar, 5 cases and 3 deaths; Kolhapore, 80 cases and 65 deaths; Cutch, 9 cases and 9 deaths and Rewa Kantha, 15 cases and 12 deaths; Palanpore, 19 cases and 16 deaths; Sachin, 6 cases and five deaths; Janjira two cases and one death; Akalkot, 8 cases and 2 deaths; Aundh, 1 case and 1 death; Bhor, 8 cases and one death; total, 1,557 cases and 1,346 deaths. The deaths up to date have numbered 82,531.

CONDEMNATION OF THE OFFICE OF CORONER

SAYS the *Journal of the American Medical Association*:—"The following is a part of a recent presentment of grandjury of the County of Kings, New York: 'We have also investigated the methods in vogue in the office of the coroners. It is proper, however, to say that we have not taken up the methods in vogue under the present coroners, but only for the time prior to their taking office. We recommend to the legislature of the State that the office of coroner be abolished. We believe, from our investigation, that the office is useless, that it has no practical effect in the ferreting out of crime; that the methods in vogue in that office during the time of our investigation are open to the most severe censure; the manner of conducting the business was inefficient, and the powers of the coroners were delegated to subordinates whose chief functions seem to be to get rid of the business and collect the fees incident to the office for their chiefs. We believe that the continuance of the coroner's office in its present shape, as the law now stands, will lead to further abuses; that the law governing the rights, duties and obligations of coroners is not clear nor specific; that the very fact that various interpretations as to the rights and duties of the coroners may be put upon the law by those who should be familiar with it, will lead to abuses which only the entire abolition of the office can wipe out'"

CHEMICAL EXAMINER AND MEDICAL EDITOR.

SURGEON-CAPTAIN BEDFORD, Editor-in-Chief of the *Indian Medical Gazette* and Chemical Examiner to the Government of Bengal, has, we regret to learn, been compelled to go away on twelve months' furlough owing to ill health, so that the disputation about the Chemical Examiner to Government holding an editorial position is at an end. One thing we learn on good authority, and it is this, that no Chemical Examiner will ever again be permitted to place himself in so compromising a position.

We wish Dr. BEDFORD a speedid time at home and trust he will come back to his labors in thoroughly renewed health and strength. Few officers could be found so well-fitted to hold the office of Chemical Examiner as Dr. BEDFORD. In the meanwhile Surgeon-Captain MAYNARD, M B, I. M. S., acts as Editor-in-Chief of the *Gazette*. Dr. MAYNARD holds a Resident Surgeoncy in the Calcutta European General Hospital. We seriously question the competency of Dr. MAYNARD to perform these dual offices, and we protest in the name of the public, against a badly officered Hospital allowing a member of its staff, detracting from the due and proper fulfilment of his official duties by handicapping himself with private contracts.

DR. MANSON AND THE MOSQUITO THEORY OF MALARIA.

WE are quite accustomed to startling statements from Dr. MANSON; he is an enthusiast, and when he gets a hobby, is inclined to ride it a little too hard. He has saddled the mosquito with the filaria sanguinis hominis, to his own satisfaction at any rate, and now desires to bridle it with the malarial parasite. The mosquito seems to be his bête noir; and his particular province to prove to a sceptical world that the divine wisdom has some object in view in the creation of this pest.

Dr. MANSON should reflect upon the old fable and remember that it is possible to put too many things on one back.

His latest utterance on this subject, made before the Epidemiological Society in London on the 16th February last, exceeds for extravagance anything we have previously heard from him. As reported in the *British Medical Journal*, he said that *he had seen the plasmodium in the stomachs and tissues* of the mosquito. To see it in the stomachs may be no difficult task, and means nothing; but in the tissues: that is different.

We cannot believe that Dr. MANSON was in earnest, we are rather inclined to think he must have been led away in the heat of controversy, if not, we should like to hear something more of these visions.

A SHORT WAY WITH HYPOSPADIAS.

THE *British Medical Journal* says:—"MR. GREEN, of Ripon, in a recent issue of the *Quarterly Medical Journal*, narrates a case of extreme hypospadias in a patient, aged 24, who had always passed as a woman. He had been living in domestic service as a housemaid when he suffered from symptoms attributed to the absence of menstruation. Careful examination showed a condition of extreme hypospadias. The scrotum was split into two halves, each containing a testis. No prostate could be felt *per rectum*, and the development of the genital apparatus appeared to have been arrested *in utero* about the third month. 'The question,' says Mr. GREEN, "now arose as to what should be done, and as the patient in mind and habit is more a woman than a man, and it is illegal for him to remain as he is in female attire, he expressed a desire to have the testicles removed and continue a woman; and it seems to me that this is the best solution of the difficulty." Mr. GREEN therefore admitted the patient, at his own urgent request, into the Ripon Cottage Hospital, and removed both the testicles. He made a good recovery, and, being now unsexed, has returned to domestic service as a housemaid. Subsequent microscopic examination of the testes showed them to be in every respect normal and active organs."

AN ABUSE OF MEDICAL CHARITY.

SAYS the *New York Medical Journal*:—"Last winter a man presented himself at the New York Ophthalmic Hospital and asked that an operation for cataract be performed, stating that he was very poor. The hospital is partly supported by charity. In view of the man's statement, that he was unable to pay much, the physician in charge reduced the usual $15 per week to $5 per week for board and attendance. The man was admitted and stayed several weeks. It was then learned that he was senior member of a large wholesale grocery firm, and was worth about $150,000. The hospital, therefore, presented a bill for $200, the full rates; the man refused to pay; the hospital sued, and received a verdict for the amount. Such vigorous treatment applied to a few of the many similar cases constantly occurring would have a beneficial influence upon the community.

SCOTTISH UNIVERSITIES AND THEIR GRADUATES.

SAYS the *Lancet*:—"The movement in favor of obtaining for the authorities of the Scottish universities the power to exercise discipline over their respective graduates is at last taking definite shape. The most active steps in this direction have been promoted by the University of Glasgow, and at a recent meeting of the University Court it was reported

that the other three universities had forwarded the names of their representatives appointed to act on a joint committee in connection with this question and Sir WILLIAM GAIRDNER was authorised to take the steps necessary to call this committee together. If the aim of the committee is attained, Scottish medical graduates will be brought into the same relation to their degree-granting bodies as at present obtains between Licentiates in medicine and surgery and the corporations from which they hold their licenses. Thus graduates equally with Licentiates will be liable to be censured or to have their names removed from the University List for proved misconduct, whilst at present the holder of a university degree retains and can use his degree even though his name has been removed from the Register by the General Medical Council.

A PARISIAN HOSPITAL A HUNDRED YEARS AGO.

M. BROUARDEL (*Annales D'Hygiene Publique* February 1898) reminds us of the conditions of hospitals in Paris one hundred years ago.

There were two sorts of beds: the large and the small. The former were the most numerous, each of these was occupied by several patients, four or sometimes six, so closely were they packed that they could not move in the space alloted to them.

When the number of admissions was excessive, the bed was covered with a sort of roof on which five or six fresh patients were placed

In these beds where four and six patients were put, it was remarked "that the peculiar heat of each disease was lost in the common heat of all, and contagious cases such as small-pox, were put into the same rooms, and even into the same beds with people suffering from non-infectious diseases"

M. BROUARDEL remarks: "I do not believe that even the powerful imagination of DANTE in the Divine Comedy has evolved torments equal to those which under the guise of pity were inflicted upon these unhappy people.

SEGREGATION AND ISOLATION.

THE following are the new rules of the Bombay Government regarding segregation and isolation:—

It will be seen that its views on these subjects have been very much modified.

(1). Persons are only to be compulsorily removed by order of a plague authority to a health or segregation camp when their house is known to be infected with plague, and when they are unable to satisfy the plague authority that they will remain under observation in a sufficiently isolated and convenient place.

(2). Voluntary removal to a health camp or other place of safety should be encouraged by all means possible.

(3). If a plague case can be suitably treated and isolated in a house of sanitary situation free from the danger of spreading infection, the patient may be allowed to remain, provided that the other occupants (save the immediate attendants) remove themselves elsewhere as above stated.

(4). In the case of all removals sufficient time should be allowed under proper observation for the making of the necessary arrangements.

A NEW HEALTH SOCIETY.

A CORRESPONDENT writes to the Bombay papers suggesting the formation of a Health Society, having for its object the promotion of sanitary reform in that city. The Association should, he says, make it its business—(1). To enquire into individual complaints as regards sanitary defects and to bring the same to the notice of the responsible authorities. (2) To consider practical suggestions for improvement, and to recommend the same for adoption. (3) To institute legal proceedings in the case of offences against sanitary laws. (4) To arrange for lectures on hygienic subjects, and to educate the people, as far as possible, by the distribution of vernacular tracts dealing with the elements of sanitary science. (5) To generally promote the sanitary welfare of the city, and last, but not least (6) to prepare the way for the establishment of sanitary institutes for India.

KIPLING'S ESTIMATE OF AMERICAN AND OTHER PRACTITIONERS.

SAYS the *Medical News*:—"RUDYARD KIPLING, the poet novelist, in an after-dinner speech at a banquet given in London to Sir WILLIAM GOWERS not long since, paid a graceful tribute to the heroism of the medical fraternity. He had mixed with doctors, he said, the world over, and had seen them going to certain death with no hope of reward. He had seen them handling cholera and smallpox, and, when dying therefrom, telegraphing for a substitute. He had seen them, in America, manage a practice twenty miles in each direction, driving horses through eight feet of snow to attend an operation ten miles away, digging their horses out of the snow and then proceeding on their way. Mr. KIPLING declared that it was one of the proudest things of his life to have been associated with 'real fighting men of this class.'"

THE WORK OF LADY DUFFERIN'S FUND IN INDIA.

THE Marchioness of Dufferin and Ava has just issued her report for last year of the United Kingdom Branch of the work done by the great fund bearing her own name for supplying medical aid to women in India. The growth of the movement is really astonishing, for Lady Dufferin states that in the twelve months under review, no less than 1,327,000 women received attention either in hospitals or their own homes from lady doctors. There are now 103 hospitals and dispensaries under the charge of a staff of twenty-eight ladies whose names are on the English Medical Register, seventy lady Assistant Surgeons, and seventy Hospital Assistants, most of whom are native women educated at the Indian universities. At the present moment there are 240 ladies studying in these Medical Colleges, among them being high-caste Hindus, Mahomedans, Parsees, Karens and Burmese.

A BRITISH INDIAN VETERAN.

DEPUTY-SURGEON-GENERAL EDMUND MACGRATH, who died at Upper Norwood, London, on 8th March, passed the greater portion of his service with the 8th Hussars and the Royal Artillery. He was specially thanked for his services during the cholera epidemic in the Punjab in 1862, when the Inspector-General wrote that he desired to express "the high sense of approbation entertained both by His Royal Highness the Duke of Cambridge and His Excellency the Commander-in-Chief in this country of the unwearied attention skill, and devotion which you exhibited in the performance of your arduous duties during that trying period." During the Egyptian campaign he was principal medical officer at Alexandria and was again thanked for his services, and received the medal, Khedive star, and the Third Class of Medjidieh. Deputy-Surgeon-General MACGRATH leaves a widow and a son, who is in practice at Reigate.

NOSTRUMS.

SAYS the *Canadian Druggist*:—"Dr. MORTON SMALE, writing to the *Lancet*, asks if it is not possible to bring pressure to bear upon the Legislature in regard to suppressing secret medicines, the destrability of which all members of the medical profession, he says, are agreed upon. Mention is

made of the suggestion thrown out by Sir WILLIAM BROADBENT when speaking to the students of St. Mary's Hospital in 1896, and Dr. SEALE thinks with him that if the ingredients and exact quantities of the drugs were printed on the bottle, it would explode a good deal of the mystery at present enveloping these remedies. The Board of Trade should be approached on the subject by representatives of all medical corporations and societies, he says, and urged by deliberate consultation to arrive at some remedy for the existing state of affairs."

THE IMPERIAL ANGLO-INDIAN ASSOCIATION.

SAYS the *Englishman* :—"The first meeting of the Directors of the newly-formed Imperial Anglo-Indian Association was held on Monday evening, when the new Memorandum of Association and the Rules framed under it were adopted after careful consideration. The administrative part of the Association will now be under the control of Directors who have been invested with real power to work for those whom they represent. Thus, every Director will bring with him one hundred members. There are to be not less than fifty Directors, and when each has brought in his one hundred members, there will be five thousand members added to the Association in Calcutta alone. Then the new designation, Memorandum of Association and Rules will be adopted by the Sister Presidencies, and if they work steadily, there are expected soon to be over fifty thousand members in India. Each Director undertakes to bring in one hundred members in order to make himself eligible for election. A Council will be annually elected from among these Directors, consisting of one President, four Vice-Presidents, and twelve members ; and this Council will administer the Association. There was also a proposal to form a Grand National Council for all India to be presided over by an officer to be styled the President-General ; but this matter was held over for further consideration."

THE F. R. C. S. IN IRELAND.

WE quote from the *Lancet* .—" The most important examination for the Fellowship of this College that has been held for years terminated by conference on 28th February. There were no less than twenty-seven candidates, eleven of the junior grade—that is, of less than ten years' standing—and sixteen of the senior rank. Of the junior four were rejected while one retired. At the senior and final examination ten failed, while one lady, four well-known hospital surgeons, and one gentleman from New Zealand passed. Dr. ROBERT WOODS, F.R.C.S. Irel., has resigned the position of Secretary to the Council of the College, but will discharge the duties of the office until the date of the new election on the first Monday in June."

HOUSES OF ILL-FAME AS MASSAGE ESTABLISHMENTS.

SAYS the N. Y. *Medical Record* :—This form of deception and vice has been carried on in London for a number of years. It is one of the most subtle, insinuating evils with which the detectives and police of that city have had to deal. The first suspicion that it had invaded America and endeavoured to establish itself there was aroused by the recent account of the case of a young girl from Buffalo, N. Y., who was lured from her home by an advertisement purporting to come from a massage establishment in New York City. On account of what she saw and the insults offered her in the house, she fled in terror, and later became insane.

BURGLING AN ABSCESS. A NEW OPERATION.

SAYS the *Medical and Surgical Reporter* :—"There are few things without their uses in this world, and we now rejoice to find that the burglar has his uses as an involuntary agent in a surgical operation. Professor BROUARDEL, in a recent lecture, related the following case : A man had a pharyngeal abscess so deeply seated that his medical attendant was afraid to meddle with it. One night a burglar broke into the house, and on the sick man calling for help tried to throttle him. The abscess burst, deluging the burglar with pus and causing him to make a rapid exit. His intended victim, on the other hand, experienced instant relief, and made a rapid recovery."

MADRAS "FEVERS."

WE note with satisfaction that our remarks on the great mortality in Madras town from "fevers," and our dissent from the explanation offered by the Sanitary Commissioner, are receiving some attention.

Our articles on the subject published in our issues of 1st and 15th February have appeared in extenso in the *Eastern Guardian* which remarks —But for the counteractive of the sea breeze which is considered an effectual febrifuge, Madras would be a hopelessly fever-stricken city. The mortuary register of last week exhibits a high number of deaths from fever, *viz.*, 118, while small-pox and tonsilitis are greatly on the increase."

NEW MEMBERS OF THE INDIAN MEDICAL ASSOCIATION.

THE following have joined the Association since our last publication :—

Edward Peacock, Assistant Surgeon, Station Hospital, Belgaum.

James Mackey, Assistant Surgeon, Fyzabad.

Lionel George Scott, Assistant Surgeon, R.I.M.S., "Lawrence," Bushire.

Nara Singha Row, Rayagadda, Vizag District.

G. Nahi Khan, C.M.S, Jail and Police Hospital, Secunderabad.

NEW MEMBERS OF THE INDIAN MEDICAL ASSOCIATION PROVIDENT FUND.

The following have joined the Fund since our last publication :—

M. Iyasawmy Pillay, C.M.S., Dowlaishwaram.

Syed Abdul Kader Saheb, C.M.S., Tharawaddy, Burma.

Angus Robertson, Assistant Surgeon, Station Hospital, Ferozepore.

Tharat Husain Khan Sahib, C.M S, 16th Regiment B. I., Malakand.

James Mackey, Assistant Surgeon, Station Hospital, Fyzabad.

NEW CALCUTTA.

MR. HUGHES, the Engineer to the Corporation, has published a lucid statement of his ideas as to the reconstruction of Calcutta. He proposes, by making seven new streets, to divide Calcutta into seventy rectangular blocks, each of which will be about a quarter of a mile square. There will be seven and a quarter miles of east and west streets, and nine miles of north and south streets. The Local Government will strengthen the hands of the Corporation to enable these improvements to be carried out. The scheme deals with a central railway station, tramway connection for the suburbs, and the removal of the Municipal railway from Circular Road.

DISCIPLINARY POWERS OF UNIVERSITIES.

SAYS the *British Medical Journal*:—"At a Convocation of the University of Durham, held on 1st February, it was proposed to revoke the degrees of a graduate in medicine and surgery, in accordance with the penal powers of the new charter of the University. At the last meeting of the Edinburgh University Court, it was agreed to appoint Lord STORMONTH-DARLING, Sir WILLIAM TURNER, and Dr. HERON WATSON as the Court's representatives on the Joint-Committee of the Scottish Universities, to consider the question of acquiring penal and disciplinary powers over graduates guilty of a criminal or other offence."

A MARRIAGE EXAMINING BOARD.

SAYS the *British Medical Journal*:—"A reformer in the Ohio Legislature has introduced a Bill requiring persons applying for marriage licences to pass a medical examination. The Bill forbids the issue of a license to any person suffering from dipsomania, insanity, or tuberculosis. It provides for a marriage examining Board of three physicians in each county. A measure of this kind has been advocated by many reformers of society from Sir THOMAS MORE down to our own day, but if science is strong, human nature is stronger. It is pretty certain that love which laughs at locksmiths will not show more respect for medical certificates."

THE BIBLICAL MYRRH.

THE London *Chemist and Druggist* says —This was not myrrh, as we know it, at all. The error arose from the similarity of the Hebrew word and the Arabian name for myrrh, *morr*. The Biblical word should have been translated *balsam*, which is made plain by the fact that it was a highly odorous liquid, while myrrh, or the myrrhs (there are several of them) that we know anything about are solids, possessing an odour it is true, but scarcely aromatic. The "balsam" of the jews is the exudation of a palm known as *Commiphora opobalsamum*

PLAGUE IN THE PUNJAB.

THE plague in the Punjab is assuming a very serious look, it is gradually approaching Lahore. No efforts are being spared to keep it in check, and the following very large staff is employed for this purpose.

Three District Superintendents of Police, five Assistant District Superintendents of Police, 4 Inspectors, 24 Deputy Inspectors, 171 Sergeants, and 1,838 Constables are actively engaged on plague work, being a total of 2,046 of all ranks. Besides these, two officers and 968 rank and file are under orders, which bring the total up to 3,000.

MR. GLADSTONE'S ILLNESS.

THE *Lancet* of the 26th March says —"We regret to learn that Mr. GLADSTONE'S case has entered on a new phase, which has made surgical advice necessary. This can scarcely be interpreted in any other way than that there is a serious cause for the symptoms from which he has suffered during the past nine months. At his great age the gravity of any surgical ailment is apparent, and the exhaustion consequent on prolonged and severe neuralgia is in itself an unfavorable feature. Mr GLADSTONE'S vitality, however, is wonderful, and his general health remains good."

ATTEMPT AT POISONING A PLAGUE OFFICER.

DR. BRITTO, Medical Officer in charge of a plague district reports what, he believes, was an attempt to poison him. He says, that an inspector went to an earthenware vessel, in which Dr. BRITTO kept drinking-water for his personal use for the purpose of quenching his thirst. No sooner had he tasted it, then it was reported to Dr. BRITTO, that it had a peculiar flavor. A test was applied, and perchloride of mercury was found. The inspector was promptly removed to hospital, where he recovered after the usual threadiam.

WHAT A MAN EATS IN A LIFETIME.

It is computed, by a contributor of inquiring mind to an English journal, that a healthy man with a good appetite and average drinking-capacity assimilates into his system during seventy years ninety-six and one-half tons of material, solid and liquid; or, putting it in another way, and assuming his weight to be twelve stones, he consumes over twelve hundred and eighty times his own weight of nourishment in the course of a lifetime.

IMPORTANT NOTICE TO DEFAULTING SUBSCRIBERS.

OUR Manager regrets being compelled to notify BAD PAYS by a new method. He is tired of old methods, as BAD PAYS thrive on secrecy. He notifies that subscribers to the *Record*, who have not paid their dues for over three years, will have their amounts notified to them through the *Record* in a regular list. He gives one full month's notice of this threat, which will be put into execution on the 1st May next.

SHORT ITEMS.

The four extra pensions of £100 each, available for 1898-99, have been given to Brigade-Surgeon-Lieutenant-Colonels the Hon. Sir A. S. Lethbridge and D. D. Cunningham, I. M. S, of the Bengal Command, to Brigade-Surgeon-Lieutenant-Colonel F. H. Blenkinsop of the Madras Command, and to Brigade-Surgeon-Lieutenant-Colonel J. Arnott of the Bombay Command. They are all on leave in England, and will retire in the course of the current year.

We find from the *Punjab Gazette*, Medical Department Notification No. 1022, dated 22nd March 1898, that third class Hospital Assistant No. 489 Partb Singh, at present in charge of the Indri Dispensary, Karnal District, is permitted to change his name to Heinrich Burdett Franklin. We look upon this as a political mistake. Indians should stick to their Indian names. To do otherwise is to inflict a socio-political wrong on two communities.

As an instance of the value set upon their service in connection with the plague demand for female doctors, it may be mentioned that a native female Hospital Assistant, whose ordinary pay is Rs. 40 per mensem with free quarters, asks for Rs. 200 per mensem with advance money and free house. For this sum it is possible to obtain trained European female medical aid.

Dr. Proenca, the Health Officer of Dumaon, died of plague at the plague hospital at Marward at 2 P.M on Saturday. He had inoculated a number of persons with Professor Haffkine's serum at the bidding of His Excellency, but he never submitted himself to inoculation, though he fearlessly treated plague patients. He was 38 years old at the time of his death.

Says the *Statesman*:—"Dr. Wallace's stirring speech on the Anglo-Indian Cause, at the Annual Meeting of the Anglo-Indian Association on the 28th March, at Calcutta, has been reproduced in most of the daily papers of the country and commented on in the most appreciative manner. It has certainly roused the whole country, for two of the Branch Associations have expressed their congratulations to Dr. Wallace telegraphically."

We are glad to note that the charge of Inspecting Medical Officer at Chowra Station, on the East Indian Railway, has been given over to a native Assistant Surgeon, Baba Sasanka Mohan Mukhopadhaya.

One of the blue ribbons of the profession of Melbourne has been lost. On the death of the City Coroner, it was expected that the Government would follow the usual custom of appointing another medical man to the position; but the profession exhibited no particular unity of action in the matter until too late, and so the office went into the hands of a layman.

The *British Medical Journal* announces the death of Dr. Charles West, which took place on 19th, March at the age of 81. Dr. West's name is known to the whole medical world by his writings on children's diseases, a department of medicine in which he was a pioneer, and for a long time the leader, in this country. They hope to publish an account of his career in an early issue.

Surgeon-Lieutenant-Colonel Fawcett, Civil Surgeon, Secunderabad, takes eighteen months' furlough, at the end of which he retires. Surgeon-Lieutenant-Colonel Little, Principal Medical Officer, Hyderabad Contingent, takes his place. Dr. Fawcett has been in Hyderabad since 1890 and was exceedingly popular. His departure is much regretted

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Dr. Lloyd-Jones has been temporarily appointed Medical Officer and Superintendent of Matheran till the end of the season, when Dr. Baker, who is now on leave in England, will take charge in October next. The present Superintendent, Mr. Edwards, of the Civil Service, goes back to his former appointment.

A series of experiments, made by Mr. E. H. Hankin Chemical Examiner and Bacteriologist, Agra, in the spring of last year, have led to the supposition that wheat and flour are not susceptible to infection by the bubonic plague microbe.

It is a happy augury for the healthier Bombay of the future, that the week in which the City Improvement Act has been passed into law, has seen a very marked decline in the virulence of the plague epidemic.

Mr. Frederick Treves, F.R.C.S., recently removed the whole of that part of the bowel below the transverse colon, together with the anus in a case of idiopathic dilatation of the colon in a child. The patient made a good recovery.

The Columbus (Indiana) Health Board has issued an order requiring the pupils of the public schools to provide themselves with individual drinking-cups. The Board is also in favor of individual communion services.

Two Russian medical men have been deputed to the Punjab by their Government to study the plague and its development. Their names are Werner and Kaschkadamffor. They have been at Lahore for some days.

The residents in Dhurrumtollah Street are about to ask the Municipality to change its name to Dufferin Street, as it is a locality largely occupied by Europeans, and it is thought it should have a European name.

Dr. Simpson, late Health Officer of Calcutta and Dr. James Cantlie, formerly of Hongkong, are appointed joint editors of a new medical journal, entitled *The Journal of Tropical Medicine*. Dr. Cantlie graduated at Aberdeen.

The Allahabad University has set the example of conferring an examinership on a lady. The Lucknow *Advocate* learns that Mrs. Jennings has been appointed Examiner in History in the current intermediate examination.

A great many letters have of late been received by Professor Bobaak, of Vienna, from mothers and would-be mothers, asking him to tell them how to bring forth sons instead of daughters.

During Sir Alexander Mackenzie's *regime*, Dr. Spiers Bunking, "Inspector of Oriental Languages," was permitted private medical practice among railway employés. We wonder if this "perquisite" will be continued.

Dr. John Morton writes:—"Mussoorie is in a great state of excitement over the Anglo-Indian question. Shall we form a branch here. It will be a very powerful one. We are 4'000 strong!" Of course friends, at once.

"The human race is divided into two classes," said Oliver Wendell Holmes—"those who go ahead and do something, and those who sit and inquire, 'why wasn't it done the other way?'"

The exploring needle is unreliable in finding small liver abscesses, and the use of the knife is recommended even though the needle fails to locate the abscess to which the symptoms point

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Dr. Langley, who came out to Madras recently in connection with the plague, and was attached to the General Hospital, has been transferred to Arkonaum for plague duty.

Thos. A. Edison, Jr., believes that he has made a discovery which will result in a perfect electrical apparatus for reproducing human thoughts as they are evolved in the mind.

Surgeon-Captain D. Simpson, Surgeon of the 2nd District, Madras, has gone to Coimbatore. Surgeon-Captain Giffard will succeed him in the 2nd District.

Dr. John P. Maynard, well known as the introducer of collodion into the practice of surgery, died at Dedham, Mass, on Friday, 26th, aged 72 years.

Mr. F. G Wigley, Assistant Secretary to the Government of Bengal in the Legislative Department, is appointed to be Coroner of Calcutta, with effect from the 13th instant.

Surgeon-Captain C. H. Bedford, late Officiating Chemical Examiner and Professor of Chemistry in the Medical College, Calcutta, takes leave for twelve months.

Dr. D. A. Choksi, Civil Surgeon, Bangalore, has been deputed by the Durbar to Bombay for the purpose of studying Professor Haffkine's method of inoculation.

We are glad to see that Mr N. B. Darabseth, M.R.C.S., M.B., C.M., has passed the necessary examinations and has been admitted a Diplomate in Public Health.

A month ago, a little Eurasian girl, named Iris Thomas, was bitten by a rabid dog, and symptoms of hydrophobia set in, she died in Bombay on the 7th instant.

Miss Florence Hope Dissent, M.D., late Surgeon to the Ulwar State Zenana Hospital, is to marry Mr. J. F. E. Barnes of Lahore on the 23rd April 1898.

Dr. Murray, Civil Surgeon, Howrah, officiates as Professor of Surgery, Medical College, Calcutta, *vice* Dr. O'Brien, proceeding home on seven months' furlough.

When the cervix is as hard as the tip of one's nose, pregnancy presumably does not exist, but if it is as soft as one's lips, the existence of pregnancy is probable.—GOODELL.

Surgeon-Captain G. Capel Hall, I. M. S., has been permitted to retire from the service from the 12th of March.

Dr. Simpson, late Health Officer of Calcutta, has been appointed Professor of Hygiene at King's College, London.

We regret to announce the death of Brigade-Surgeon G. M. Govan, M.D., Bengal Retired List, at Almora, on the 9th.

VITAL STATISTICS OF CALCUTTA.

Statement of Deaths from Principal Diseases in Calcutta during the week ending 19th March to the 9th April 1898.

Week ending.	Cholera.	Small-pox.	Fevers.	Bowel complaints.	Also other diseases.	Total.	Total population, according to the census of 1891.	Ratio per 1,000 of population per annum.
19th March	17	3	160	42	236	458	6,81,560	35·0
26th March	35	3	147	55	219	459	...	35·1
2nd April	43	6	156	51	201	457	...	34·1
9th April	37	2	141	48	176	404	...	30·9

Current Medical Literature.

MEDICINE.

Treatment of Locomotor Ataxia.

LANGDON strongly advocated simple hygiene with a sinusoidal current of high potential, rapid alternation (480 to 1,920 per second) and comparatively small quantity per footplate and neck-electrode for 5 to 15 minutes on alternate days for six weeks, as the best mode of treating locomotor ataxia, which he looks upon not as a sclerosis, but a peripherocentral degeneration of sensory neuron endings, and urges that early diagnosis (earlier the better) and proper treatment will distinctly benefit, if not practically cure, the patient by (1) limiting the degenerative process to a small number of neurons, (2) reproducing certain nerve endings, and (3) promoting increase on functional power in endings still competent though lowered in vitality and function. While antisyphilitic treatment is uncalled for, alcohol and opiates are decidedly pernicious and the old fads of giving mercury and potassii iodide are senseless. Faradism is useless, galvanism useful in a large proportion of cases. The lightning pains may be relieved by 2 to 4 grain doses of aluminium choloride, and the most valuable drugs are phosphorus, iron and codliver oil with strychnine, ; but liberal diet (meats, fats, milk, water *ad lib* and fruits, with very little saccharine or starchy foods) hygiene (warm clothes and climate) and rest are the main factors to successful treatment where digestion, assimilation and elimination (especially of autotoxines) *must* be promoted.—*Cincinn Lancet Clinic.*

Clinical Value of the Widal Test.

THERE are fashions in medicine as there are in costumes Experience has shown that the value of EHRLICH'S diaro-test for typhoid was not nearly so great as was predicted, and the WIDAL test (*Lancet*) seems likely to secure a similar verdict, since Dr. W. GILMAN THOMSON, of New York, who has analysed 503 cases of fevers, thinks (*Medical News*) that the WIDAL test, though very instructive from a bacteriological point of view, is of little practical diagnostic value to the clinician, who in 75 to 80 per cent. of the cases, needs no comfirmatory test beyond the plain history and symptoms of typhoid fever, while the remainder of the cases in which such a test would be invaluable if it were exclusively accurate are chiefly (1) the very early stages or (2) various atypical forms of enteric fever, (3) obscure sepsis, (4) severe or protracted malarial remittent fever and some cases of (5) typhus fever or of (6) acute miliary tuberculosis. Dr. THOMPSON (*Lancet*) hopes that further possible improvement in technique may place the WIDAL test upon a firmer practical basis than can at present be claimed for it, since just now it yields (1) a margin of error of 11 to 12 per cent. on either side of the normal line in cases in which it fails where it ought to succeed, and succeeds where it ought to fail, which 23 per cent. of possible error unfortunately (2) includes just those very cases in which there is the greatest doubt from the purely clinical side, and (3) this test, which is confirmatory in connection with appropriate symptoms, is misleading if positive reliance be placed upon it alone ; since as a genuine diagnostic agent it (4) has about the value of the diaro re-action in typhoid urine or the study of leucocytosis in pneumonia.

Habitual Constipation.

THOUGH he does not altogether set aside the theories of intestinal intoxication and doubtful prognosis as regards complete recovery, EWALD says that diminished irritability of the intestinal nerves or defective development in the muscular coat of the intestine indicate one form of habitual constipation in which an hereditary factor is often present. He shows the relation of mental disturbance to constipation which exhibiting itself by general and local symptoms may be the result of (1) suppressing the desire to defrecate (2) an abundant diet difficult to digest, deficient in water and too easily absorbed or of insufficient variety, (3) sedentary habits, (4) too active a life, (5) disturbances in the circulation (6) mechanical pressure, (7) pregnancy, (8) displacement of the bowel, (9) mental worry, and (10) adhesion of coils of intestine to each other or to some organ. He supports three lines of treatment. (1) *Dietetic* in which only food that increases peristalsis should be eaten, (2) *Physico-mechanical* consisting of clysters aided by massage, and (3) *Medicinal*, in which saline purgatives and the mineral waters of German spas are well to the fore, and purgation should be mild or powerful in accordance to the symptoms present, but it should not be made a daily practice of. Sometimes sedative and anti-spasmodic remedies are needed, where constipation is of the spastic type.—*Pac. Med. Jour.*

Reflex Neuroses of Nasal Origin.

AT a meeting of the Netherland Society of Laryngology, Rhinology, and Otology, Dr. MOLL, of Arnheim, reviewed the history of nervous reflexes and cautions against adopting extreme opinions which attribute to them, at one time, too great and, then, again, too small a role. He described a case of very serious disorder of deglutition in a man, aged 60 years, and which completely disappeared after ablation of a spur of the septum. The patient, who for a year could only swallow liquids, gained the power of taking solids. In another similar case the immediate effect of the operation was equally satisfactory, but the final result was less favorable.—*Med. Bulletin.*

OPHTHALMIC SURGERY NOTES.

By G. C. Casey, M.B., M.R.C.S.,
Medical College, Lahore.

On the Treatment of the more Common Eye Affections.

In the *Edinburgh Medical Journal* for October 1891, Mr. Cannon Carey begins a series of practical papers under the above title. Speaking of the treatment of conjunctivitis, the writer tells us, that in the acute stage, the principal point to attend to is not to interfere too energetically. There is, as I have already hinted, a danger in doing too much. All that is necessary in most cases is to freely remove the secretion during the day, and to prevent its too great retention within the conjunctival sac at night. Even those who are sufficiently alive to the disadvantages of an active treatment with astringent lotions, rarely seem to take care that the more suitable mildly antiseptic or other bland lotion which they employ is so used as to properly irrigate the inflamed conjunctival surface. An efficient removal of discharge is not got by merely squeezing a little lotion from a sponge or piece of cotton-wool into the lower conjunctival sac, or by using an eye-bath. In very many cases, however, the tendency to a speedy return to the normal in the absence of irritative treatment is so great, that this is not of much consequence. It certainly, however, is a better plan to irrigate properly. This may be done by allowing a pint or more of the lotion (preferably a 2 per cent. solution of boracic acid at a temperature of 96° to 98°F.) to stream by gravitation over the whole surface of the conjunctiva three or four times daily. For this purpose the vessel containing the liquid may be held 10 or 12 inches above the head, allowed to run through india-rubber tubing, to the end of which is fixed a flattened glass nozzle.

The nozzle can be readily inserted below the upper and lower lids without touching the cornea. It is usually best to begin by everting the upper lid, and, after irrigating its tarsal surface, to insert the glass nozzle behind the upper margin of the tarsus, so as to get at the retro-tarsal fold.

In the more severe and protracted cases, a daily direct application to the conjunctival surface, with a camel's-hair brush, of a strong antiseptic solution is useful. The most suitable are strong (fully saturated) chlorine water and nitrate of silver in a 2 per cent. solution. Though not always so readily got, the first is the better, and when painted over the palpebral conjunctiva causes no pain to speak of. Corrosive sublimate solutions should be avoided; they are more irritating and far less penetrating.

The margins of the lids should in all cases be kept smeared with some bland ointment. Fresh lard or fresh butter do very well. Vaseline is not always pure, and may cause irritation. Boracic ointment (boracic acid 3ss. almond oil 20 mm., and supermaceti ointment ʒss.) is what I generally use.

The questions of light, and of the use of the eyes to reading etc., remain to be considered. With all inflammations of the eye itself, as well as of the conjunctiva, there is more or less photophobia, or dread of light. It does not follow, however, that the light is actually hurtful. The active rays are known to cause direct irritation of the conjunctiva, which may, indeed, as in snow-blindness and electric-light ophthalmia, be so great as to cause violent inflammation. On the other hand, the same rays have been shown to exert a powerful bactericidal effect. It is a very common treatment to keep patients suffering from conjunctivitis in a dark room. Often this is continued for weeks; and although the discomfort which light causes is thus avoided, there is little doubt that this treatment tends to prolong the inflammation rather than to cut it short. The patient, too, soon has his retina so adapted for the dark that even a little increase of light is painful, just as one may experience a degree of dazzling from the light of a match struck at night.

The light of an ordinary room in the daytime, when the sun's rays are not passing directly into it so as to be unpleasant to anyone else, has not any bad effect on a conjunctivitis. On the other hand, the use of dark glasses outside in bright weather is advisable. They enable the patient to keep his eyes properly open, and subject him less to great differences of illumination. The glasses should be neutral-tinted, and not blue. Blue glass, although absorbing light, transmits a larger proportion of the most irritating (chemical) rays.

The open air, in the absence of rain or dust-clouds, is unquestionably good. This is often not properly realised; it is perhaps natural to suppose that there is an indication with a "cold in the eye" to remain in doors. Reading or writing should not be allowed.

In acute attacks it is seldom, however, that attempts at reading are persisted in. Why reading should be hurtful is not quite evident. It is certain, however, that it adds greatly to the discomfort caused by the conjunctivitis increasing at the same time the congestion.

This discomfort, besides, does not pass off on discontinuing reading, as does the discomfort first felt in ordinary light on coming from a darkened room.

Whether as the result of inappropriate treatment or otherwise, inflammation of the conjunctiva, instead of entirely subsiding, may continue for an indefinite time as a chronic condition. "Chronic conjunctivitis" is met with in all degrees of severity, from what is little more that slight hyperæmia of the conjunctiva, to a greatly thickened, fleshy-looking, pus-secreting state of that membrane, with incrustation of the lid margin; and often, too, owing to deeper infiltration, the palpebral fibres of the orbicularis fail to keep the lower lid properly in contact with the eye. The swollen conjunctiva thus becomes everted, and the excretion of tears is interfered with. The overflowing tears cause excoriation of the skin, and the ectropion once set up becomes more and more marked as time goes on.

The everted conjunctiva besides being thickened, is, as the result of constant exposure to the air, also hardened, and may even be incrusted or covered by scales or scabs.

These very bad cases of chronic conjunctivitis are mostly met with in old people of uncleanly habits; they are not the cases one is most frequently called upon to treat. In all cases in which conjunctivitis has become chronic, the first points to be ascertained, before any line of treatment is begun, are the nature of the external surroundings and of the treatment which has already been adopted. Where the patient is constantly subjected to smoky or hot and close atmosphere, or to any evident source of irritation, such conditions should, as far as possible, be removed.

If he has been poulticing, or, what comes to the same thing, keeping moist applications to the eye, or tying it up and allowing the bandage to become moistened by tears, or if strong astringent lotions have been used, such treatment should at once be discontinued.

It is generally well, too, to look to the state of the mucous membrane of the naso-pharynx, as a chronic catarrh in this situation is apt to keep up a conjunctivitis, even although it may not have been the principal cause in originating it. Still more important in this respect is the state of the tear sac. Inflammation of the mucous membrane lining the tear duct and sac is not infrequently complicated by conjunctivitis, which is then generally set up by inoculation from this source. On the other hand, even severe purulent primary inflammation of the conjunctiva seldom, if ever, spreads to the tear sac. A proper treatment of the inflammatory condition of the naso-pharynx is often useful, in addition to anything which may be undertaken for the more direct treatment of the conjunctivitis. But treatment of the sac for a co-existing blennorrhœa is an absolute necessity.

Without an improvement in this situation no treatment of the conjunctivitis alone can be of much avail.

In the least severe cases of chronic conjunctivitis, in which there is little or no thickening of the conjunctiva, and not much increase in the secretions, it is not generally necessary, if the precautions referred to as to surroundings be taken, to do anything very active. It is mainly in respect to their origin, namely, a preceding acute attack, that they differ at all from cases which I have described as conjunctival congestion. They should therefore be treated much in the same way. Change of air, especially to some dry, high-lying inland place, may be tried, and any existing error of refraction should be corrected. In addition, a weak astringent may sometimes be useful, such as solution of vaseline, tannic acid, myrrh, alum, cinchona, or ichthyol.

The following are prescriptions which may be recommended for this purpose:—

R	Vaseline	...	ʒiv.
	Aquæ carui	...	ʒviii.
R	Acidi tannici	...	grr. vi, xii.
	Sodæ biboratis	...	ʒiii.
	Glycerini	...	ʒvi.
	Aquam camphoræ ad	...	ʒxii.
R	Tincturæ myrrhæ	...	ʒii.
	Aquæ destillatæ	...	ʒxii.

℞	Alumnis		gr. x, xx.
	Aquæ rosæ		ʒxii.
℞	Extracti cinchonæ flavæ liquidi ...		ℳ, 48.
	Acidi hydrocyanici dilute ...		ℳ, 15.
	Glycerini		ʒvi.
	Aquam destillatum ad.		ʒxii.
℞	Ichthyoli		ʒi.
	Aquæ sambuci,		
	Aquæ destillatæ, aa		ʒvi.

In more severe cases, with thickening of the conjunctiva, swelling of the folds, and deeper infiltration as evidenced by slight ptosis, and with more or less distinct muco-purulent secretion, there is, I believe, nothing better than lead. A solution of the neutral subacetate of lead, in the strength of 10 grains to the ʒi of water, may be painted directly over the mucous surface of the everted lids once daily, and an irrigation of boracic acid made twice or thrice daily, or a wash of the same lead salt in weaker solution (1—2 grs. to the ʒi) may be used about three or four times in the 24 hours. In the worst cases, painting with strong chlorine water or a 2 per cent. solution of nitrate of silver once daily, is useful in addition to the lead wash. Where there is ectropion of the lower lid, the lower canaliculus should be slit with a Weber's knife.

The scales must also be removed from the lid margin, and an ointment of iodoform and vaseline (1 to 6) smeared on the raw surface.

Owing to the frequency of folliculosis in young people, it often happens that the appearance of the conjunctiva presented in an ordinary, muco-purulent inflammation is such as to suggest some different and specific type of conjunctivitis, The overgrowth of adenoid tissue may be so marked a feature that the follicles appear as numerous papillæ in the swollen and congested membrane.

When this is the case, it is not uncommon to hear the conjunctivitis spoken of as a follicular conjunctivitis.

It is not improbable that the same irritation which causes the conjunctiva to inflame may give rise to some further follicular enlargement, but as far as the inflammation goes, both in its causation and course, it is a simple conjunctivitis. The treatment should be in every way the same as that already described. Special care is, however, required in irrigating, as the presence of the many elevations makes it more difficult to thoroughly remove the secretions.

———:o:———

OBSTETRICS AND GYNÆCOLOGY.

Premonitory Symptoms of Puerperal Infection.

THE true rigor, local pains, and conspicuous pulse and temperature are known to all, and when combined, indicate more or less advanced infection, but these symptoms never come on suddenly, though certain milder types of infection now observed may represent sepsis modified by antiseptic agents; these milder types, however, will assuredly develop into deadly septic infection if neglected But even the severest form is preceded for a day or two by distinct elevation of temperature and pulse, and by insomnia. An evening temperature of about 100° in the axilla, with a fall of about a degree in the morning, without a corresponding drop in a somewhat rapid pulse, is a distinctly suspicious symptom. The rise in the pulse often precedes the rise in the temperature; the observer must therefore make sure that acceleration of the heart's action is accounted for even in a patient who seems otherwise convalescent. Reaction after the fatigue of labor, hæmorrhage, and emotions all send up the pulse. Insomnia is often observed in the earlier stages of infection, and distinct want of sleep without restlessness is usual for a day or two before bad septic symptoms. The lochia may remain free from odor in the premonitory stage of puerperal septicæmia, nor are the discharges always fœtid when the disease is established.—*Med. Age.*

Tubal Gestation.

DURRASEN has compiled a valuable monograph on this condition based upon operative experience and anatomical research. He feels sure that the most frequent cause of tubal gestation is gonorrhœa through the catarrhal salpingitis which that disorder sets up. He also shows, from a specimen, that polypus of the tube may likewise cause the same phenomenon. He figures a tubal sac, on the uterine side of which lies a small polypus which obstructed the lumen, so as to prevent the fertilised ovum from passing into the uterus. The ostium is very patulous. A less familiar condition is held by DURRASEN to be the cause of tubal pregnancy when evidence of inflammation or mechanical obstruction is absent. He finds that in seven of his cases the abnormal followed within a year a normal pregnancy. He carefully examined the tube in one of these cases, and found the most definite evidence of atrophy of its walls. This puerperal atrophy damages the peristaltic action of the tube, and as the lumen is dilated, the entry of spermatozoa is favored. The weakened tube then fails to propel a fertilised ovum into the uterus.—*Brit. Med. Jour.*

Rupture of Uterus in Labor from Hydatid Disease of Pelvis.

TISSIER records a case of high importance in regard to pregnancy in women who have suffered from hydatid disease of the liver. His patient had been under treatment for that malady eighteen years before the pregnancy for which he attended her. During labor the uterus burst and she died. At the necropsy, the diagnosis of the hepatic disease was confirmed; the omentum and abdominal cavity were full of hydatids. The uterus was surrounded by a mass of the same growths; it is not actually stated that any of them perforated the uterine wall. Other hydatids were encapsuled in the broad ligaments.—*Brit. Med. Jour.*

Tubercular Peritonitis.

IN an article on this subject in the *Annals of Gynecology and Pediatry*, HOLMES arrives at the following conclusions:—

1. Tubercular peritonitis is a relatively common disease.
2. It is never a primary disease, though it is usually impossible to find the initial focus.
3. Recovery follows laparotomy as a general rule, unless there is an initial focus remaining to keep up the disease.
4. This disease appears in three forms: the exudative form, the dry form and the ulcerating form, and they are recognizable in the order named.
5. Microscopical examination of the peritoneum is sufficient for a positive diagnosis The demonstration of microscopical tubercles or the recognition of the bacilli are only confirmatory.
6. Puncture of the abdominal wall for diagnosis or for the removal of ascites and injection of air, fluid or iodoform, is dangerous and should not be practised.
7. Laparotomy, with iodoform gauze, tamponade drainage is the safest and most reliable treatment.
8. Laparotomy should be done as soon as there is a show of emaciation or when a relative diagnosis has been made.
9. A positive diagnosis can never be made before laparotomy.—*Gaillard's Med. Jour.*

Present Status of Vaginal Operations for Diseases of the Pelvic Organs.

DR. EDWIN B. CRAGIN, of New York, read this paper. He was of the opinion that, with the exception of cases of small ovarian tumors, and prolapsed and diseased ovaries needing removal, unilateral disease of the appendages is best dealt with from the abdominal incision, and he also preferred the abdominal route for cases of ectopic gestation except in cases in which a hematocele had formed and had become encapsulated. The vaginal operation he had found very useful in cases of pregnancy in which the parturient canal was obstructed by tumors. The vaginal operation was useful chiefly in three classes of cases, *viz.* 1. Pus-cases, in which the removal of the uterus and appendages is indicated. 2. Cases in which the exudate indicates the necessity for drainage without removal of the organ. 3. Small fibromyomata —*Phil. Med Jour.*

Intestinal Obstruction associated with Twisted Ovarian Pedicle.

TWO cases are reported by SCHALITA (*Vratch*) in both of which the intestinal lesions were much less severe than the disturbance in the original seat of the disease. The first case, *æt* 20, was supposed to have an epigastric tumour. Suddenly accompanied by violent pains in right iliac fossa and no motions passed for several days. Abdominal section showed large ovarian cyst with twisted pedicle adherent to great omentum and pressing so hard on a point in the ascending colon as to render it gangrenous. The tube was loaded with clot. The cyst was removed and the patient recovered. The second case, *æt.* 51, whose abdomen was swelling for two years, was also suddenly taken with pains and intestinal obstruction. Abdominal section showed a loop of intestine strangulated between the abdominal wall and the ovarian cyst whose pedicle was twisted, and there was hemorrhage into the cavity of the cyst: Removal resulted in recovery.

PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

The Physiology and Pathology of the Pleura.

E. GRAWITZ, claims that it has been frequently proven that inhaled pigment is deposited not only in the lung and its pleural covering, but in the costal pleura as well, and questions how it gets there.

In experiments on rabbits, GRAWITZ found that pigment is very rapidly deposited in the costal pleura, and he was able to demonstrate the same in large quantities as early as twenty-four hours after blowing dust through the air-passages into the lungs. By creating a pneumo-thorax on one side of the animal, he found that, on this side, the lung, its pleura, and the costal pleura did *not* show pigment.

He, as well as FEINER, concludes, that inspired dust passes rapidly through the lung into its pleural covering, and part of the pigment is taken up by the costal pleura in turn.

If these deductions be correct, they would tend to explain the occasional so-called idiopathic cases of pleurisy, by the possibility that certain kinds of dust, while causing no pulmonary disturbance, might give rise to inflammation of the pleura by irritation, thus not necessarily requiring a bacteriological origin. GRAWITZ'S experiments may also have a bearing on primary tubercular pleurisy by the same mode of infection, the lung having escaped—*Post Graduate.*

Quantity of Ammonia contained in the Blood under Physiological and Pathological Conditions.

DR. H. WINTERBERG, basing his conclusions upon an examination of the blood of twelve healthy persons, states that the average quantity of ammonia in the circulation is 0·96 mgm. in each 100 c.c. of blood, this quantity varying slightly in each individual, as do the salts, etc. The quantity varies greatly in fever; it is usually increased, but may be unaltered or diminished. More important are his observations of the uræmic state, in which he noticed but a slight increase in the ammonia, once up to 2 mgm., once to 1·4 mgm. The blood of a dog after extirpation of both kidneys showed no change in the amount of ammonia. This experiment, he thinks, tends to prove the fallacy of FRERICHS' theory that uræmia is due to an accumulation of carbonate of ammonium in the blood.—*N. Y. Med. Rec.*

Symptomatology of Hæmaturia in Children.

As it may be constant, slight, profuse or intermittent and arising from any part of the tract, or may be so minute as to escape ready detection, MORGAN (*Trans. Lond. Med. Soc.*) lays great stress on the importance of finding out the origin of the hæmaturia, since it may indicate a local or a general disease. It is often the earliest symptom of scurvy rickets, and in young infants often occurs as the result of irritation of the renal tissues by uric acid and other crystals, or it may be induced by drugs such as cantharides, carbolic acid, potassi chloras, rhubarb, turpentine, &c., Urine, tinged more or less with blood, is often found in Bright's disease, hæmorrhagic measles, small-pox, diphtheria, uricacidæmia, and scarlet fever. Both ABERCROMBIE and HAIG have found Raynaud's disease associated with hæmoglobinuria, which is also common in purpura and in hæmophilia, where the bleeding from the kidneys is often profuse and intermittent. Winckel's disease, which attacks new-born infants on or about the 4th day and carries them off in 48 hours, is not common in England but paroxysmal hæmaturia or hæmoglobinuria, *sans* blood corpuscles, yet highly stained with blood, is fairly often found. HERRINGHAM and VOELCKER appear to think that hæmaturic children have a syphilitic taint about them, but MORGAN has seen typical cases in which no such suspicion could have existed. Bloody urine may be the result of direct violence or the reflexes of some tumoid or otherwise diseased conditions, but is more profuse when from the kidney than when from the bladder, but is seldom accompanied by pain unless clots form in the ureter, and the pain, which is referred to the loin, testes or thigh ceases when the clot is washed onwards to the bladder. Kidney hæmorrhage may generally be confirmed by the presence of casts and epithelium.—*Lancet.*

Toxic Effect of Extensive Burns.

Is proven by the invariable fatal results obtained by TOMMASOLI (*Monat and Prakt Derm*, XXV. 2) on dogs fed with the serum or meat extracts of other dogs that had been burned; but these fatal effects were averted if, at the same time he injected artificial serum, which he therefore considers the logical treatment for extensive burns.

Optic Atrophy following Sexual Excess.

SPALDING tells of four cases where sexual excesses led to optic atrophy which, refusing to yield to treatment of any sort, gradually became worse. The sufferers were not totally blind, though they had lost useful vision.—*Cincin. Lancet Clinic.*

Adrenal Growth.

REFERRING to the importance for a systematic study of such cases with a view to gaining definite knowledge of kidney and tumours, KELYNACK restricts himself to growths of the normal adrenal which he classifies as (1) *benign* growths of which adenoma and modified adenomata are the most frequent forms, and among which are such forms as lipoma, fibroma, glioma, angioma and lymphangioma, which seldom or never alter the shape of the gland, even when greatly enlarged; (2) *malignant* growths of which the usual primary form is sarcoma which secondary deposits in the suprarenals may develop into carcinoma. Primary cancer of the adrenals is excessively rare, and it was deeply regretted that most authors who had written on these subjects had given such scanty information on important points as to render their communications almost worthless.—*Med. Chronic.*

Varieties of the Cholera Vibrio.

KLEIN, in the previous report, described several modifications of the typical Koch vibrio, by cultivation in oysters and in sea-water, and now describes the continuation of this work. No less than eight varieties have been obtained differing in the number of flagella, the rate of liquefaction, the length of the filaments, virulence, etc., some of them approaching very closely the Lisbon, Seine and other varieties. Although all were derived from a vibrio which reacted typically, some of the varieties reacted positively to the BORDET-DURHAM test, whilst others did not. Attempts to reconvert these varieties to the parent form failed, with one exception.—*Treatment.*

Frequent Occurrence of the Loeffler Bacillus on Wounds after Galvano-Caustic Removal of Tonsil.

IN 11 out of 27 cases the author found LOEFFLER bacillus with streptococci and staphylococci and leptothrix. In spite of the diphtheritic appearance of the wound all of the cases recovered without the use of antitoxin. He regards the bacillus as harmless under these circumstances.

2. The transmission of vasomotor impulses from the nose.

3. Diminution of the breathing capacity from nasal causes.

4. Functional insufficiency of nasal resonance. He lays especial stress on the second point.—LICHTWITZ in *Jour. Eye, Ear and Throat.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Unusual Case of Poisoning by Foul Air.

In driving a tunnel in connection with the sewerage works now in progress in Melbourne, foul air was met of such a deadly character as to cause the death of five workmen. The tunnel was through soft silt and sand on the bank of the river, which has been flooded with drainage for years. Some time ago, the contractor and foremen of the works were nearly suffocated by the gases escaping from the soil, and Dr. CHARLES BAGE, who attended them, described the symptoms produced in a paper in the November number of the *Intercolonial Medical Journal*. He concluded that the gases present were marsh gas, sulphuretted hydrogen and carbonic acid. On the present occasion the contractor had forbidden the men to go down, but three of them went to get some tools left in the tunnel and the other men went to rescue them. Several rescue parties of firemen in smoke jackets were beaten back by the gases in attempting to remove the dead bodies. Finally, the tunnel had to be flooded with water and the bodies were brought out by divers. At the inquest Dr. NEILD, who made the *post-mortem* examination, said that death was due to suffocation from breathing irrespirable gas which was, he thought, chiefly carbonic acid.—*Lancet.*

Sanitary Value of Singing.

BARTH maintains that singing is as good as any other form of gymnastics if not better than many of them, since utilization of the vocal apparatus clears the upper air-passages and promotes pulmonary circulation, besides developing the chest and the activity of the digestive organs by purifying the blood and regulating metabolism. Singing has also the advantage that it can be practised anywhere or at any time and without using special apparatus.—*Archiv. fur Laryngo.*

Purification of Water Supplies.

IN his address on State Medicine, Dr. GEO. H. ROHE pointed out that those cities that had the largest mortality from typhoid had a highly suspicious quality of drinking water. He urged the necessity for limiting—because it was impossible to altogether prevent sewage pollution, and showed that filtration through sand-beds are much safer and more practicable than any other modes of purifying a water supply; but adds that certain precautions are necessary to see that the layers of sand, which should be clean, are sufficiently close and that the passage of the water to be operated through these sand filters is slow enough to ensure dynamic and chemical removal of impurities.—*Univ. Med. Jour.*

Asepsis in Daily Life.

A MEASURE looking toward greater cleanliness, which means, of course, less disease, is now being pushed forward with some degree of success. This is the measure to prevent the floors of cars and the side-walks from being used as spittoons. The degree of success that shall attend this movement is a gauge of the civilization and refinement of the present day.

Beyond this, however, there is still an advance step that can be taken that would be wonderfully conducive to asepsis in daily life, and hence cause a still greater lessening of disease, writes JULIA W. CARPENTER, M.D., in the *Woman's Medical Journal*. It is a simple but a very radical measure.

A handkerchief should be made of some inexpensive material, and when once used, it should be cremated.

This should be the universal law for sick and well. Think of the chronic catarrhs, the sorethroats, the decayed teeth and untidy mouths, the bad colds of well people—so-called—and the handkerchief the receptacle of the evidence of all this. [illegible] put away in two linen to wash, then to the laundry. Then simply given this effete matter, the opportunity of being carried out into the sewers and sewers and returning again in the drinking water. As many a fatal malady is [illegible] easy to see what pollution of water could in this way be prevented.

Handkerchiefs could be made of some material so inexpensive that their use and destruction would cost no more than their laundering. If the expense was something more, however, it would be nothing to the expense of sickness. Cheap handkerchiefs to be burned would greatly facilitate the carrying out of the measure to prevent expectoration in cars and on sidewalks. The handkerchief could be the receptacle and its destruction would be such an advance toward aseptic living that there would be a great decrease in the number of influenzas, catarrhs, and especially in contamination from tuberculosis.—*Gaillard's Med. Jour.*

Recent Observations upon Cocain Poisoning.

GRIFFIN calls attention to the variety of susceptibility and idiosyncrasy to cocain which different individuals present. Some patients who are acutely poisoned exhibit maniac excitement, while others are stupid. It is well known that poisoning has followed the use of a dose far short of the maximum therapeutic allowance, even ·077 of a grain having caused serious symptoms. There are also instances in which a solution of a certain strength has been used without unpleasant effects, while a repetition of the same dose on a subsequent occasion has caused toxic symptoms. The injection of camphor dissolved in ether and the employment of artificial respiration have recently been extolled as the best treatment for the acute poisoning.

In chronic poisoning by cocain there is one symptom known as Magnan's sign, which is of considerable importance in establishing a diagnosis when the use of the drug is denied, and is also of importance in other cases as indicating to the physician the necessity for immediate discontinuance of the remedy. This sign is a hallucination of sensation, the patient complaining of feeling some foreign body beneath the skin. This is generally described as being small in size, and is usually ascribed to the presence of "sand," "worms," or "microbes."—*Med. News.*

Examination of Patient under Chloroform.

IN a personal injury case, a physician was called by the plaintiff, and testified that chloroform was administered to the plaintiff, and that she was examined while under that influence, and as to what he found in reference to the condition of his patient at the time. The defendant contended that an examination of the plaintiff's injuries had been made by the doctor only a day or two before this without administering chloroform, and that this testimony about giving it had a tendency to make the plaintiff's case appear more serious than it really was, and that this was prejudicial to the defendant. But the supreme court of Michigan says, HOLMAN against Union Street Railway Company, that the chloroform was administered as a part of the treatment, and while the patient was under its influence, the muscles of the shoulder and hip were given motion with the purpose of breaking up the adhesions; and it expresses the opinion that the testimony was not objectionable, and was introduced for the purpose of showing the then condition of the plaintiff. This decision it further seeks to justify by the statement that there was nothing in the testimony to show that this treatment was unnecessary, or that it was had for the purpose of the trial of the case. That the doctor was asked, while upon the stand, whether or not, in his judgment, the plaintiff still continued to suffer pain, and whether she would be able to do her household duties, it does not consider error.—*Jour. Amer. Med. Assoc.*

THERAPEUTICS AND PHARMACOLOGY.

Treatment of Tuberculosis.

V. Ziemssen draws attention to the still very imperfect state of our knowledge of tuberculosis. He discusses (1) the specific, and (2) the climatic dietetic treatment. His results with the new tuberculin have been unsatisfactory, although Koch's directions were strictly adhered to. Occasionally the author has observed an increase of weight, diminution of expectoration and fever, while tuberculin was being used, but the same has been known to occur under other conditions. In local tuberculosis of the skin, bones, and joints, perhaps the results of the tuberculin treatment may be different. For instance, the author has recently seen a case of lupus under Posselt's care in which tuberculin had brought about a cure. V. Ziemssen says that he has no expectorations either from the tuberculin treatment or that by Maragliano's serum. The condition of the lungs is far too complicated to admit of a direct action of the tuberculin upon the pathogenic microbe. The lung cannot be protected from the streptococcus and staphylococcus infections. The value of the open air treatment of phthisis is universally admitted. The advantages of high altitudes lie (1) in the air being purer and freer from gases and bacteria, (2) in the greater amount of ozone present, (3) in the diminished pressure; (4) in the rays of the sun being warmer, the air drier, and fog rarer; and (5) in the increase of the red cells induced. The increase in the hæmoglobin does not depend on the high altitude. The hardening of the body against atmospheric agencies by the outdoor life and hydrotherapy as well as the increased appetite can be brought about elsewhere. The disadvantages of high altitudes consist in the variation in wind, rain, and snow which may make acclimatisation difficult. There is also the difficulty in the journey. The treatment in the majority of cases has to be carried out at home. Some well-known sanatoria show that phthisis can be as well treated in ordinary as in high altitudes. The author lays much stress on the formation of such sanatoria for all classes of the community, in them really lies the future of a more efficient treatment of phthisis. —*Brit. Med. Jour.*

Euphthalmine, a New Mydriatic.

Dr. B. Trentler reports his investigation of euphthalmine. It is the hydrochloric-acid salt of a mandelic derivative of methylimyl-diacetonealkamine.

1. It causes slight discomfort of short duration.
2. It dilates the pupils, solutions of five to ten per cent. being used.
3. Its action upon the eld is not so marked.
4. It is not as rapidly absorbed as cocaine, but once established, the effect is more intense or lasts a longer period. The corneal epithelium remains intact.
5. Accommodation is less influenced by euphthalmine than homatropine.
6. The return of accommodation to the normal state is much quicker than after homatropine.
7. Disagreeable sequelæ have not as yet been observed.—*Post Graduate.*

Chloroform as an Anthelminthic.

Cambatu draws attention to the value of the internal administration of chloroform in cases of tape-worm. He reports seven cases in which it was eminently satisfactory after the common anthelminthics had failed. The patient is put on a moderate diet for two days, but not made to fast, and then, in the course of eight hours, he takes from forty-five grains to a drachm of pure chloroform in syrup, a quarter of it at each dose and a dose every two hours. After that a dose of castor oil is taken. In the author's cases there were no symptoms of poisoning or any unpleasant effects. This treatment is said to have been described by an American writer in 1868.—*N. Y. Med. Jour.*

Therapeutics of Whooping Cough.

According to Bondraghi's experience a treatment that disinfects, soothes the nervous system and keeps up the strength is much better than any of the so-called specifics. For the first he advises spraying for ten minutes a day with a 2 per cent. solution of carbolic. For the second he prefers trional, which ensures a calm, lasting and strengthening sleep, 0.1 to 0.5 gram according to age. He adds a teaspoon of a 1 per cent. solution of chloral in every obstinate case. To keep up the strength he gives one-fourth to one-half teaspoon somatose in milk three or four times a day.—*Klin. Therap. Woch.*

Treatment of Chronic Appendicitis by Mercury.

Four persons who had several times refused operation for chronic appendicitis, contracted secondary syphilis for which they consulted Horwitz (*Annals of Surgery*), who put them on small 'tonic' doses of protoiodids of mercury, and was surprised to note that not only the syphilitic symptoms disappeared, but also the appendicitis, dyspepsia and constipation. The appendix has not given any trouble since the cessation of the mercurial course some 18 to 48 years, but these cases are *too* few for definite conclusions. Horwitz thinks it well worth while for others to test this treatment in all cases of chronic appendicitis, where operation is refused.

Hair Tonic.

℞	Salicylic acid	...	15 grains
	Resorcin ...	...	30 grains
	Tincture cantharides	...	4 drachms.
	Tincture capsicum	...	1 drachm.
	Saponin ...	...	1 drachm.
	Lanolin ...	...	1 ounce.
	Rose-water, to make	..	10 ounces.

Melt the lanolin, dissolve the saponin in the same quantity of water, incorporate the two. Dissolve the acid and resorcin in the tinctures and rose-water, respectively, make up the required bulk.

—*Treatment.*

Hemorrhoids of Pregnancy.

℞	Sulphur precipitated		
	Cream of tartar	...	.. aa ℥i.

—Da Costa.

Neurasthenia.

℞	Sodii bromidi	...	... ℥i.
	Liquoris potassii arsenitis	...	... ℥iss.
	Extracti ergotæ	..	... ℥i.
	Tincturæ opii camphoratæ	...	... ℥i
	Aquæ	..	... q.s. ad ℥iv.

M. ft. sol. S. Teaspoonful in water after meals.

—Curran Pope.

Vomiting of Pregnancy.

Cocaine hydrochlorate, one-sixth grain, by hypodermic injection once or twice a day immediately before meals; inject in the hypogastric region.—Pozzi.

Children's Cough-Mixture.

Vin. ipecac	...	...	℥vj
Tr. scillæ	...	...	℥ss.
Tr. hyoscy	...	...	℥ss
Potass bromid	...	...	℥iij.
Oxymel	...	...	℥v.
Glycerini	...	...	℥ij.
Syrupi ad	...	...	℥xx.

Dose: For a child of 6 months, half a teaspoonful, from 6 months to 2 years, one teaspoonful.

Correspondence

DR. ELIZABETH BLACKWELL ON VENEREAL DISEASE [illegible]

To the Editor, "Indian [illegible]."

Sir,—The following remarks are prompted by reading an address given to a meeting of medical women, in London, 27th April 1897, by Dr. Elizabeth Blackwell, &c.

Dr. Blackwell's position appears to be that as sexual intercourse is not necessary for health, the obvious solution of this problem lies in the abolition of promiscuous sexual intercourse.

She then enunciates herself (Axiom 2) "The sexual organs are not essential to individual life; although they are essential to the continuance of the race. Neither is their full exercise by sexual congress even indispensable to individual health."

The remedy is: "First, the steady discouragement, by Government, of promiscuous intercourse. Second, the removal of the iniquities which curses our soldiery, in an army of occupation."

Her whole argument is based upon the *axiom* given above, which, according to her, is ignored with blind obstinacy in education, in social sentiment, and in Government organisations.

In support of the first remedy recommended, Dr. Blackwell at some length endeavours to prove that promiscuous intercourse can never be made safe, and again introduces the charge of ignorance. She says: "Now these positive medical facts appear to be unknown in their full significance to our Government advisers."

Beyond disputing Dr. Blackwell's claims to solitary knowledge on this subject, and taking exception to the dogmatic manner in which she lays down her *axioms* and assertions, we have no quarrel with her, let her by all the means in her power strive to elevate and purify the race, let her and those who follow in her footsteps fix their eyes on the millennium,—for the present day their ideals are too visionary.

Let them beware, however, lest in striving after good, by too Utopian a path, their efforts only result in increasing the evil; above all things let them be charitable and abstain from denouncing everyone who does not agree with them.

Their attitude while noble in itself, is closely bound up with that narrow spirit of prejudice which can see nothing good in any method except its own, and dominated by that fanatical zeal which overrides all opposition and obstructs all advance, except on the lines it has itself laid down.

All roads lead to Rome, and to all great ends; there are many ways; in this case there is room and to spare both for their work and for the present methods adopted by Government, the ways do not run counter, they are not necessarily antagonistic. Rather having begun widely apart they merge upon the same point, and when that point on the road is reached, there will no longer be any room for dispute as to which path was the best, for by that time it will have been proved beyond doubt.

Let them therefore, if their path is the right one, have [illegible]

[illegible] these. Let them purify their [illegible] and for all the vicious and unbridled use of "State Regulation of Vice."

It does not become the practical government of a practical people to rule by philanthropic views and to adopt the latest fashionable or sentimental cause. There is the practical question to deal with, a question to be dealt with at once, and not in the visionary future, that the Army of India is more than decimated by disease; and in their ways of dealing with this question the Government and its advisers are not so ignorant as Dr. Blackwell would lead others to assume.

As physicians, we have two duties to perform: one the prevention of disease, the other its cure, and no one can doubt which of these is the most important.

Let Dr. Blackwell and those with her devote their energies to the future prevention, but in the meantime why obstruct those whose object is to cure.

This unfortunately they will not see; prevention is their cry; in the urgent necessity of the day, the treatment and cure of the disease they close their eyes.

How would the logic of this position stand if applied to any of the dangerous infectious diseases which at present are notifiable by law in England, most of these diseases, if not all, are recognised to be preventable. Take typhoid fever as a simple example.

To the sufferer Dr. Blackwell and her friends will say, 'this is a preventable disease, you have only yourself to blame for getting it, you failed to take the necessary precautions to protect yourself against it, you did not boil and filter your water and milk, you did not keep your drains in perfect order. We have demonstrated that typhoid fever is not a necessary disease; we have set our faces against it and will not recognise it."

"Further, we consider that Governments are to blame for providing hospitals for its treatment, and for enforcing its notification by law, and to this action of Government we apply the term State Regulation and Encouragement of typhoid fever."

To the very obvious reply of the affected one that "if you don't take any steps to cure me, I become a menace of danger to my neighbours, they will become infected, others will follow and soon the disease will gain strength and run riot through the kingdom," what answer have they got, they wilfully and wantonly close their eyes and are dumb.

Yet this is exactly what has happened in the case of syphilis; for years the disease in its course has been left neglected and untreated, with the inevitable result that it has increased enormously both in magnitude and virulence. Who is to blame for this state of things? Who but the preachers of that self-same gospel of which Dr. Blackwell stands forth as the present expounder.

Dr. Blackwell's solution of the whole question is an array of solutions. Will [illegible] a moment into this question of celibacy, at least as far as [illegible] state, but

[illegible] large a proportion [illegible] come.

[illegible] Dr. Blackwell enforce celibacy by stringent [illegible] restrictions? We can tell her, and history will bear us out, that danger lies on that path too, which may open up even worse vices for opprobrium in the future.

It is idle to urge that the celibate state is to exist for a few years only, since it is to those very years when all the passions are strongest and most uncontrolled that it applies.

A celibate army is, we fear, too visionary, too wildly impracticable for serious consideration in the present day.

Dr. Blackwell tells us that, "wherever a standing army exists, there exists a focus of the most insidious and dangerous diseases that afflict human beings," and again that "standing armies in every civilised country are nurseries of the various forms of venereal disease."

Well the whole history of the past and the whole modern doctrine of evolution teach us that war is an inexorable law of nature, but even in the face of all this, it would be simpler to abolish standing armies than to make them celibate.

Dr. Blackwell's cure, however, is not the abolition of standing armies, this would not be affectual, for she is forced to admit "that the same dangerous diseases prevail in all our larger towns"! Well, we say, like charity, let Dr. Blackwell and her followers begin at home, they will find a rich field ripe for their labors, let them tap the evil at its root, purify the civil population and, *ipso facto*, the army will be purified.

Such advice is a however, unplatable to them who love the sensational notoriety of big meetings, and platform declamations.

What can be more outrageous and reprehensible than such a statement as the following which we find in Dr. Blackwell's address:—

"It is stated that, according to the last census, there were the enormous number of 38,037,254 girls under 15 years of age in our Indian Empire. What is the duty of a Christian Government to this helpless mass of human beings? The formation of poor young Indian women into a class purchasable by white soldiers—a class despised by their own people, with no refuge before them: but when used up, turned out to die, is a dire and dastardly disgrace to any Government calling itself civilised."

Is this the language of sanity, or is it the irresponsible utterance of an unprincipled agitator?

Does Dr. Blackwell desire to lead those more ignorant than even she is into the belief that the Government of India thus disposes of all the young girls in the Empire? Or does she wish to imply that prostitution was unknown in India before the advent of the British?

She says: "The sexual organs are not a permissible subject of trade," on what grounds does she make such a [illegible] on the grounds of history or [illegible] writer, has said, this is the [illegible] world.

[illegible] a special [illegible] does not attach to [illegible] deplorable [illegible] may be, it has one good [illegible] the whole of the lower orders are not honeycombed [illegible] as they are in more civilised countries.

Born to be a prostitute! may be [illegible] those not so born are at any rate saved from the degradation.

Venereal diseases of the worst [illegible] are being imported to an enormous extent [illegible] every year. When the British public fully [illegible] the fact and sees with open eyes the incalculable danger to which this importation exposes their sisters and daughters, and the heritage of suffering it lays up for [illegible], and when they learn that these diseases are [illegible] by the class which Dr. Blackwell, with [illegible] sentiment, calls her "Indian Sisters," what will its feelings be?

But when it further learns that it is [illegible] through the misguided and unfortunately too [illegible] platform efforts of the Dr. Blackwells that these diseases have spread to such an alarming extent, and taken on such awful forms, and that these agitators put every obstacle they can in the way of the Government rendering help and assistance to these "Indian Sisters," and curing them of these loathsome diseases, which to many must be a source of suffering and early death; we can well imagine, were it to see all this clearly, that its rage would know no bounds, and that it would rise up and pluck these would-be reformers from their pharisaical platforms.

Yours &c., A Hater of Frauds.

THE CHEMIST AND DRUGGIST TRADE IN INDIA.

To the Editor, "Indian Medical Record."

Sir,—The chemist's shop with its colored carboys and gold labelled blue bottles does not seem to offer the same attractions now as it used to some time ago to the uninitiated, and it would not be wrong to state that most of those in the business, if given the chance of beginning life again, would not select the drug trade to pass their days at, nevertheless the Trade is not "Done" as most imagine, but on the contrary, is still able to give one more than a subsistance, if persevered in. This calls to mind the signboard of a chemist which stated that he could cure every ill; prevent every disaster, and soothe every disappointment. The remedy, when applied for, as every one knows, was—

"Patience" is the pill
That cures every ill;
"Take care" is the plaster
That prevents disaster;
"Good temper" is the ointment
Soothing every disappointment.—

maxims which, if followed, would secure the success of almost any undertaking or calling in life.

The cause or rather causes for the apparent falling-off of candidates for pharmaceutical work, natives excepted, is partly due to the old complaint of long hours and low wages, and to which must now be added the want of a boundary line between the medical practitioner and the pharmacist, and last but not least (what should be illegal) the dispensing of drugs by the

unqualified army of twopenny ha' penny chemists and druggists' shops.

The Government certificate of efficiency granted to successful candidates states that in the opinion of the Examiners the candidate "has a sufficient knowledge of English materia medica and pharmacy," but this to all experience is far from being the case. The English referred to is confined to prescription-reading and the posological table, and that even is very imperfect and the so-called knowledge of Materia Medica and Pharmacy is nothing more or less than "cram." Certainly it is not knowledge, for if you ask ten locally qualified compounders the difference between percolation, and distillation, or what a percolater, an infuser or a distiller is, and you will be amused at the replies to the three former queries, and very probably you will be told that the latter three *drugs* must be unofficial remedies and not among B. P. preparations This state of affairs points to the necessity of a more practical and higher standard of examination which should include elementary chemistry and botany. Doubtless the right sort of men in large numbers would come forward to weed out the present class of compounders, who are clumsy assistants requiring more supervision that one can find time to give them. It must not be inferred that the exclusion of honest competition is aimed at, rather the reverse, as competition at all times is healthy and desirable, but it must be on equal terms, otherwise it becomes as great a scandal and a disgrace as the monopoly by official medical men of hospital and private practice against the equally qualified private medical practitioner. What, may I ask, is there to prevent the dismissed compounder in the late unfortunate case in the N. W. Provinces from opening a drug store in Bow Bazar or Bhowanipore, dubbing himself an M. D. of the U. S. A. or Afghanistan, it does not matter which, under the name and style of Cureall and Company, Surgeons, Chemists and Druggists. Is this competition? It is more like legalised manslaughter. Then why not protect the lives of the people and the professions who alike contribute towards the payment of the handsome salary of that high office of the State whose one duty is the inspection of hospitals and dispensaries, their constitution and working material. Yet there are hundreds of the "killaway dens" pictured above, in and around every city and town, that have never yet been entered, though seen by the medical war horse at Writers' Buildings. But to return to our subject, apart from the disadvantages and drawbacks enumerated, the shop life in the drug trade is far and away superior when compared with most other classes of business. It has its humorous side the same as other shops; in fact more amusement can be derived in the chemist trade in a week than in any other business in a month, the curious requests, the whisper which is intended to be strictly private, the wonderful and extraordinary descriptions of complaints is amusement enough, to be asked for something for a boil "as per margin or something for "an ulster" in the throat; or for constant vomiting by the mouth, for a fever mixture for pains in the bellies and the bodies by fever, will extract something more than a smile from the proudest, besides there is not that stream of customers seeking for half price bargains as is the case in other shops, and therefore not that continual work, though the hours be long. All things considered the calling has many advantages over other services, though the satisfaction of the chemist to-day is that he is more circumscribed in the execution of his duties than his predecessor of say 20 years ago, when a good prescription could be dispensed with B. P. preparations, but now it is the fashion probably due to the microbes which necessitate the thrusting of new remedies and preparations on him by the physician, and which does not give one the happy time which formerly was his lot.

Yours &c., O. C. D.

:o:

A PRIVATE TEMPERANCE HOSPITAL IN BOMBAY.

To the Editor, "Indian Medical Record."

Sir,—The above institution was opened in Bombay, at Mazagon, on the 8th March 1898 (under the auspices of the W. C. T. U.), for all classes, sexes, doctors, to be worked, as far as possible, on the same lines as that of Doctor Richardson's "London Temperance Hospital," which has now been worked for 21 years with 95 per cent. recoveries.

Private.—Every *Home* arrangement to be made.

Temperance.—No alcohol, as brandy, whisky, wines, to be admitted into the hospital as beverages

All Classes.—For Hindus, Mahomedans, Parsees, Jews, and Europeans.

Sexes.—Men, women, and children will be received.

Doctors.—Any doctor's patients will be received, provided the doctor consents to treat without the use of alcohol, unless absolutely needed, when a full record of the case must be made in a book kept for the purpose.

It is optional for the patients to be under the inclusive professional charge of the Resident Medical Officer of the hospital, or to call in, at their own expense, any legally qualified medical or surgical practitioner whom they may think proper, subject to the rules of the establishment.

The hospital is big enough to contain 12 single paying wards and 4 free beds, with a dispensary and quarters sufficient to accommodate the hospital staff.

The terms of admission will be as follows:—

1. The charge for board, nursing, and medical attendance in the hospital, by the staff, will be at the rate of Rs. 5, Rs. 2, and Re 1 per diem for 1st, 2nd, and 3rd class patients, respectively, payable in advance.

2. The Resident Medical Officer may determine the patient's term in the hospital by a week's notice or less if necessary, upon a certificate by the doctor-in-charge of the case that the patient is in a condition to be removed.

3. The patients must in all respects conform to the regulations prescribed from time to time for the due government and management of the hospital, and all matters incidental to their position as patients therein and removal therefrom.

4. Whenever practicable, accommodation will be provided in the hospital for such relatives or friends as a patient may wish to have near, upon the distinct understanding that they will strictly conform to the regulations. The charges for board and lodge to such visitors will be Rs. 2-8, Re. 1, and Re. 0-8 for 1st, 2nd and 3rd class respectively.

HOSPITAL TREASURER.

This being a philanthropic movement, and the charges so moderate as to scarcely cover the entire cost, the public are earnestly solicited for donations and subscriptions.

Donors of the following sums will have the honor of being reckoned as follows :—

Rs. 1,000 ... ... Life Councillors.
Rs. 500 ... ... Life Members.

Annual donations of Rs. 500 will defray the cost of a "free" bed, which will be named after the donor as long as the donation continues. There will be four such beds.

LADIES' COMMITTEE.

President.—Mrs. THOBURN, M.D. *Treasurer.*—Mrs. Dr. CHRISTIE. *Secretary*—Mrs. Dr. VAN INGEN, M.D., Mrs. STEPHENS. *Bankers*—National Bank of India.

The hospital has won the sympathy and support of an influential section of the European and the Indian communities of Bombay. We now ask for the support of readers of the *Indian Medical Record*.

Yours &c., ALICE VAN INGEN, M.D.,
Physician to the P. T. H.

:o:

APKE-WASTAISM IN CALCUTTA.
SALAAMING OFFICIALS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—There is an expression in China which is on all fours with the vulgar one in English called "lick-spit," it is "tow-tow" In plain English it is sycophancy of a very humiliating order, a desire to obtain the smiles and favors of those in high office by falsely praising them, by getting up shows for departing officials who do not deserve an expression of public thanks or public appreciation. Yet there is a small section of Bengalis in Calcutta who can manufacture a tin-pot show of this kind for any and every official, who, having feathered his nest, puts on high airs of flunkeyism and so-forth, slides off the stage of Indian affairs with no more title to credit or thanks, than Shylock. Money grubbing, whipping up the almightly rupee, has of course been a well played game, but science, research, the up-building of the profession, the enrichment of the clinical annals of medicine, reformation in educational and other medical matters, are all outside the pale of official concern with some such beings. The wonder of these complacent and meaningless shams is, that officials who are credited with some degree of common sense and self-respect, stoop to permit themselves to be duped in this fashion and to be made a public laughing stock. Truly it is officials of the bombastic, stand-off-the-grass type, who stab their non-official brethren in the dark, who calumniate them, who try in a hundred-and-one ways to harm them, these are the blatant apes who accept this buffonery as "genuine" praise. A death to all such hypocricy. May even Bengalis learn that such conduct is mean and contemptible, and that people without spectacles, men half blind with cataracts, can see through shams, and what is more, they will find these shams exposed and ridiculed in all their contemptible frollowness.

Yours, &c., ENGLISH NON-OFFICIAL.

:o:

MORE HIGHLY PLACED ANGLO-INDIANS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—I thank you for publishing my letter giving the names of a few highly placed Anglo-Indians, and as promised, I now send you a supplementary list, to which I hope to be able to add from time to time.

1. George Elander, Executive Engineer, Karachi Canals. (Died 14th September 1872).
2. Theophilus Miles, Deputy Collector, Shikarpur, Sind (Retired).
3. Francis Gibbons, City Magistrate, Karachi. (Retired).
4. Charles Harry Chetham, late Manager, Agra Bank, now Secretary, Chamber of Commerce, Karachi
5. Anthony R. Cumming, City Magistrate, Karachi
6. Hope Boalth, Surgeon-Major, Indian Medical Service. (Retired).
7. Victor Hope Boalth, (Cooper's Hill) Assistant Traffic Superintendent, North-Western Railway (Covenanted).
8. William Dowman, Deputy Collector, Hyderabad, Sind.
9. Henry Celestine Robert John, (Cooper's Hill) Executive Engineer, Sind Irrigation Department.
10. John Wright Sandford Dracup, Assistant Commissioner, N. D., Bombay.
11. William Edlin Young, Assistant Collector, of Customs, Bombay.
12. George B. Strettell, Conservator of Forests in Sind.
13. George Charles Gilder, Assistant Secretary to Government, Bombay (retired).

The following are some "stars" Anglo-Indian ladies :—

1. Blanche Fearn, M.D.
2. Matilda Hunt, M.A., S.C., L.M.S., Senior Fellow D. J. Sind College, and Editor, *The Phœnix*, now Lady Superintendent, Alexandra Native Girls' English Institution, Bombay.
3. Margaret Evans, B.A.
4. Olive DaCunha, B.A.
5. Helena Payne, B.A.

Yours &c, W. H. T

KARACHI, *6th April 1898.*

(These lists are very creditable to Bombay, we want Madras and Bengal to follow suit.—Ed., I. M. R.)

:o:

BOGUS INSURANCE OFFICES.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—May I request you to kindly inform me whether you know anything about the "Sun Life Assurance Company of Canada."

I insured my life in it some five years ago. I do not know whether that Company transacts any business in India. The Chief Agents for the Company in India are said to be "G. M LALKA SON & Co., Bombay."

Is it a Company worth having one's life insured in?

Is the Company as good as the Oriental Insurance Company of Bombay?

Is it suited for residents in India?

I saw something about American Life Insurance Companies in your journal, hence I take the liberty of asking you to let me know about the "Sun."

What will be the best means to get a portion of the premiums paid?

Yours &c., M. MUNUSAWMY IYER, C.M.S.
Medical Officer, Tanjore Jail.

(We know nothing of the "Sun" Insurance Company. We accept the advertisements of none but genuine Insurance companies in the *Record*, and our correspondent will do well to trust these Companies only. It is an unfortunate fact that American Insurance offices cannot give needful information to insurers without referring to America.—ED., I. M. R.)

:o:

AMERICAN MEDICAL DIPLOMAS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—I note, by regular perusal of your valuable journal, that you are an active advocate of an impartial yet high standard of education for all medical practitioners in India. The time cannot too quickly come when this much-needed improvement shall be realised.

It is not only distressing to the hard-working and well-informed physician, but it is a crime against suffering humanity, for the great number of so-called "Doctors," without education, and without conscience, to thus live at the expense, and prosper by the downfall, of those who have no means of knowing, until too late, that they are being imposed upon.

I am ashamed to note your contribution of Dr. Foy's article with reference to so many bogus American medical colleges, in which article the impression is given, that degrees may be secured in America for money only.

We recognize that there are sharpers, and scoundrels in America.

We have met some of the same class in England and on the Continent, but to illustrate any national standard by individual criminality, is doing ourselves, as well as the country, an injustice.

We anxiously look for the time when India shall have secured equally stringent laws and high standards, governing the practice of medicine, as may to-day be found in the States, or in Canada.

"America" has many schools, some of which belong to Great Britain, and some to the United States. From which country these bought diplomas are coming, is not stated by Dr. Foy.

We are personally acquainted with the Canadian medical standards, and have done some work in the States, but although we occasionally hear of such "American" diplomas, we have not as yet been able to get our hands or eyes upon even one such document, although we have, (for special reasons) been very desirous of so doing for several years.

Any physician knowing of such diploma being now in use in this country will confer on us a great favor by simply stating its location.

Yours in the interests of better protection for the hard working and properly qualified medical practitioner.,

O. G. PLACE, M.D.

(It gives us much pleasure to publish Dr. Place's letter We have always held that America is second to no country in the world for the high standard of many of her medical schools and the excellence of her physicians. But that bogus diploma mills exist in that far advanced Western clime is proved by the almost weekly protests of the best journals of that country. We must confess an error into which Dr Place has fallen, namely, that "some" American medical schools belong to Great Britain. This is incorrect. No medical school in either America (the States) or Canada belongs to Great Britain in any sense. Canada belongs to Great Britain, but her medical schools are her own, governed by her laws, and unscontrolled by the only body that controls Medical Education in Great Britian and her Colonies, namely, the General Medical Council. It is quite true however that the Council recognises the diplomas of Canadian medical schools, just as she does those of England's other Colonies. Dr. Place has every right to be proud and jealous of the good name of American and Canadian medical education. Our only desire is to expose and crush down frauds.—ED., *J. M. C.*)

Book Reviews & Medical Trade Notice.

TEXT-BOOK OF PHYSIOLOGY.

EDITED BY E. A. SCHAFFER, LL.D., F.R.S.,
Godwell Professor of Physiology, University College, London

(Publisher: Young J. Pentland, Edinburgh and London. Vol. I, 1898)

THIS excellent hand-book of Physiology is the combined work of the best physiologists of Great Britain, such names as Gamjee, Gaskell, Edkins, Hill, McKendrick, Sanderson, Schaffer and others are in themselves a guarantee of the high standard of the book. It is a large volume of over 1,000 pages, and is essentially a work on "higher" physiology, intended chiefly for students and practitioners who are working for high academic medical and surgical degrees. As such it is undoubtedly a most commendable volume.

CARDIAC FAILURE.

BY ALEXANDER MORISON, M.D. Edin., F.R.C.P., Edin.

(Publishers: The Rebman Publishing Company, Ltd., 11 Adam Street, Strand, London W. C.)

To thoroughly understand the great pathological truths of cardiac failure is to be armed with knowledge of the most essential service to every physician. This little monograph, while it deals with all the pathological causes of heart failure in a general way, is very explicit in its reference to the therapeutics of the subject and it relies especially on the modern treatment of cardiac ailments by baths and gymnastics. The work is highly interesting and instructive.

A TEX-BOOK OF MATERIA MEDICA, THERAPEUTICS AND PHARMACOLOGY.

BY GEORGE F. BUTLER, PH.G., M.D.,
Professor of Materia Medica and Clinical Medicine in the College of Physicians and Surgeons, Chicago.

(Publishers: W. B. SAUNDERS, Philadelphia. Price 4 dollars.)

THIS large volume of 858 pages provides the student of medicine with a clear, concise and practical text-book, adapted for permanent reference no less than for the requirements of the class room. The design and arrangement of the various sections is most philosophical and rational, and will be found well calculated to remove all perplexity in the study of these subjects. While the educational value of this book is very good, the pharmaceutical section is particularly well arranged and is very interestingly instructive.

"KASAGRA" (THE ORIGINAL AND ONLY GENUINE CASCARA AROMATIC.)

FREDERICK STEARNS & Co., DETROIT, MICHIGAN, U. S. A.

1. THE term "Kasagra" was coined and adopted to the medical profession and ourselves against the substitution of cheaper and inferior preparations bearing the name of "Cascara Aromatic," a title original with us, several of which have been put upon the market with the hope of gaining a sale on the reputation and advertising of ours, the original product.

2. "Kasagra" contains *all* the active principles of the best selected bark of Rhamnus Purshiana, and owes its laxative properties to this drug *alone*.

3. It *does not gripe*, as does the ordinary U. S. P. fluid extract. In preparing "Kasagra," bark two years old or older is used, which lessens its griping tendencies and improves its taste.

4. It is *highly palatable*, the bitter principle being successfully masked without detriment to the therapeutic properties of the drug. It is the *only* strictly non bitter preparation of Cascara Sagrada of full fluid extract strength.

5. It is a true pharmaceutical preparation, and not advertised to the laity but only to the medical and pharmaceutical professions.

6. It is sold as reasonably as is consistent with the care and excellence of the ingredients used in its manufacture.

7. It is a true laxative and intestinal tonic remedy *par excellence* for chronic constipation. It is *not a purgative* and should not be used as such.

8. The aromatics used in the preparation of "Kasagra" produce a carminative and stimulating effect upon the alimentary canal and are thus synergetic.

Government Medical Gazettes.

GOVERNMENT OF INDIA.

Surgn.-Majs. Jarlath ffrench-Mullen, M.B., Eugene Cretin, M.B., F.R.C.S., Andrew Duncan, M.D., R.A., F.R.C.S., George Frederick Nicholson, M.D., F.R.C.S.I., Samuel Ferguson Bigger, M.B., Sir George Scott Robertson, K.C.S.I. to be Surgn Lieut.-Cols., 30th March 1898.

Surgn.-Maj. William Grant Thorold, Patrick Mehis, M.D., Lionel John Pisani, F.R.C.S., Basanta Kumar Basu, M.B., Narendra Prasanna Sinha, William Rice Edwards, M.D., Charles Mactaggart, M.B., John Fenton Evans, M.B., George James Hamilton Ball, M.B., Joseph Thomas Daly, M.B., Henry Fooks, Ernest Hudson, F.R.C.S., Arthur, William Thomas, M.D., William Henry Saunter Robinson to be Surgn.-Majs., 1st April 1898.

[illegible] Henry [illegible], M.D., [illegible] Pemberton, [illegible] Marjiber, [illegible] M.D., William [illegible] M.D., and Henry Armstrong to Surgn. Lieut.-Cols., [illegible] March 1898.

Surgn.-Majs. Charles Monks, Phirozsha Jamsetjee Dumasia, George Henry Bell, M.D., and Frederick Fitzgerald MacCartie, [illegible], C.I.E., to be Surgn.-Lieut.-Cols., 30th March 1898.

Brig.-Surgn.-Lieut.-Col. Thomas Holbein Hendley, C.I.E., to be Surgn.-Col., 2nd April 1898.

The undermentioned mily pupils having passed their final exam. are admitted into the service as 3rd class Mily. Asst. Surgns. from the dates against their names :—

Bengal.—George Samuel Jennings, 1st March 1898.

William Dudley Salt, Wilfred John Fleming, Charles Henry McDonough, Lawrence McCurtis, Eustace Francis Ribeiro, Alfred Holehouse, and Horace James Willes, 12th March 1898.

Bombay.—Joseph Sylvester Shemain, and George Frederick Audsen, 1st March 1898.

The services of Brig.-Surgn. Lieut.-Col. T. H. Hendley, C.I.E., I. M. S. (Bengal), are placed at the disposal of the Home Dept.

Surgn.-Maj. G. E. Weston, A. M. S., Station Hosp., Mount Abu, to the civil med. charge of the station from 22nd Feby. 1898.

The services of Surgn.-Capt. W. Henvey, I. M. S. (Bengal) are replaced at the disposal of the Mily. Dept.

Surgn.-Capt. W. E. A. Armstrong, I. M. S. (Madras), offg. Resoy Surgn. and *ex-officio* Asst. to the Resident in Nepal, officiated as a Resdt. of the 2nd class and Resdt. in Nepal from the 23rd Jany. to 12th March, 1898.

BENGAL GOVERNMENT.

Asst. Surgn. Sasanka Mohun Mookerjee to be an Inspg. Med. Officer at Chausa Stn., E. I. Ry., Shahabad.

Surgn.-Capt. R. H. Maddox, I. M. S., to have med. charge civil station of Dinapur, from 6th March 1898.

Dr. Hedley Wood to act as Civil Med. Officer of Jalpaiguri.

Surgn.-Lieut.-Col. E. Bovill, Civil Surgn. of Darjeeling, to act as Civil Surgn. of Howrah.

Surgn.-Lieut.-Col. J. Lewtas, Offg. Prof. of Surgical and Descriptive Anatomy, Med. Coll., Calcutta and *ex-officio* Second Surgn., Coll. Hosp., to be Civil Surgn. of Darjeeling.

Surgn.-Capt. F. O'Kinealy, Civil Surgn. of Noakhali, furlough in India for three months in extension of the leave granted, 4th March 1898.

Asst. Surgn. Satya Sarun Mitra did supy. duty, Med. Coll. Hosp., from 30th Sept. to 23rd Oct. 1897.

Asst. Surgn. Sasi Bhusan Banerjee, on special duty in connection with anti-choleraic inoculations, leave for three months, from 14th March 1898.

Asst. Surgn. Kasi Nath Ghosh, Somastipur sub-div. and dispy., leave for six months, from 24th Feb. 1898.

Asst. Surgn. Hari Das Mitra to have tempy. med. charge sub-div. and dispy. Somastipur.

Asst. Surgn. Sasanka Mohun Mookerjee is allowed leave from 17th Oct. 1897 to 1st Jany. 1898.

Asst. Surgn. Kunjo Lal Sanyal, Teacher of Medicine and Midwifery, Dacca Med. School, leave for one month.

Asst. Surgn. Mohendra Nath Dutt, Tikari dispy., to tempy. med. charge Damukdea, E. B. S. Ry.

Surgn.-Capt. C. H. Bedford reported his departure from India, on furlough, 22nd March 1898.

Surgn.-Lieut.-Col. E. Bovill, Civil Surgn. of Darjeeling, to be Civil Surgn. of Murshidabad.

Surgn.-Major F. J. Drury, Offg. Civil Surgn. of Chittagong, confirmed in that appt.

Surgn.-Lieut.-Col. G. S. A. Ranking, Secy. to the Board of Examrs., to act temply. as Surgn. Sppdt., Presy. Genl. Hosp., Calcutta.

PUNJAB GOVERNMENT.

Hosp. Asst. Pattab Singh, Indri Disp., Karnal dist., is permitted to change his name to Heinrich Bardett Franklin.

Hosp. Asst. Ganesh Datta resumed charge Karor Dispy., Dera Ismail Khan dist., from 27th Feby. 1898.

Hosp. Asst. Labbu Ram, to Lahore Dist. Jail, from 28th Feby. 1898.

Hosp. Asst. Labha Mal was placed on special plague duty, Garhshankar Tahsil, Hoshiarpur dist., from 15th Feby. 1898.

Hosp. Asst. Ghias-ud-din, to Khurianwala Dispy., Jhang dist., from 11th Feby. 1898.

Hosp. Asst. [illegible]-ud-din, [illegible] Dispy., Lahol, to Thanesar for duty in connection with the Sun Eclipse Fair, from 14th to 24th Jany. 1898.

Hosp. Asst. Amir Shah was placed on genl. duty, Mayo Hosp., Lahore, 9th March 1898.

Asst. Surgn. Nand Lal Udawat reported himself to the Principal, Lahore Medical College, for genl. duty at the Mayo Hosp., from 7th March 1898.

Hosp. Asst. Amir-ud-din, having passed the Supdl. Prof. Exam., is promoted to the 1st class of Hosp. Assts. from 1st Oct. 1896.

Surgn.-Major George Frederick Nicholson, M.B., F.R.C.S., to be Surgn.-Lieut.-Col., 30th March 1898.

Surgn.-Capt. E. Heard is placed on special duty, Hoshiarpur dist., in connection with the plague, from 19th Feby. 1898.

Asst. Surgn. Ralla Singh, Gujranwala Dispy., is placed in civil med. charge of that dist., from 17th March 1898.

Asst. Surgn. J. Davis, Civil Surgn., Gujranwala, is placed on special duty in the Jullundur dist., from 18th March 1898.

Asst. Surgn. Sri Ram, Gurgaon Dispy., is placed in civil med. charge of that dist., from the 17th March 1898.

Asst. Surgn. W. G. Mason, Civil Surgn., Gurgaon, is placed on special duty, Jullundur dist., from 18th March 1898.

CENTRAL PROVINCES GOVERNMENT.

Med. pupil Wasudeo Ganesh, Jail and Police Hosps. Hoshangabad, to Katangi Branch Dispy., Balaghat dist.

Hosp. Asst. Bhagwant Din Misra, Katangi Branch Dispy., to the Jail and Police Hosps. Hoshangabad dist.

Hosp. Asst. Sheik Ramjan Ali, Mungeli Branch Dispy., was in charge Mungeli Poor-house, from 26th Dec. 1896 to 28th Nov. 1897.

Hosp. Asst. Girma Ziogu, Itwari Branch Dispy., Nagpur, to Heude-Bansi Lal Dispy.

The services of Hosp. Asst. Mir Barkat Ali were placed at the disposal of the P. W. D. from 26th Jany. 1897.

Hosp. Asst. Ali Ahmed, doing duty under Civil Surgn., Nagpur, to do plague duty, Pulgaon Ry. Station from 8th Jany. to 1st March 1898.

The services of Surgn.-Col. J. H. Newman, M.D., I. M.S. (Bengal), are replaced at the disposal of the Mily. Dept., from the date on which he makes over charge of his duties.

Passed Med. Pupil Ahmadulla Khan to Rehli Branch Dispy., Saugor dist.

Hosp. Asst. Ramlal, Rehli Branch Dispy., to do duty under Civil Surgn., Damoh.

Passed Med. Pupil Khusal Chand, to Banda Branch Dispy., Saugor dist.

Vithal Raghoba Landay to do duty under Civil Surgn., Jubbulpore.

Hosp. Asst. Abdul Karim, Police Hosp., Nagpur, is posted to the Ramtek Dispy.

Hosp. Asst. Ramchandra Sitaram, Ramtek Branch Dispy., to do duty under Civil Surgn., Nagpur.

Hosp. Asst. Balwant Lakhshman, Khapa Branch Dispy., Nagpur dist., to Police Hosp., Nagpur.

Hosp. Asst. Ramsahai, to the Khapa Branch Dispy.

Hosp. Asst. Narayan Vinayak, on famine duty, Bilaspur, to the Jail Hosp., Bilaspur.

The services of Hosp. Asst. Muhammad Umar Khan were placed at the disposal of the P. W. D. for famine duty, Narsinghpur dist., from 4th April to 28th June 1897.

Hosp. Asst. Muhammad Hanif did duty under Civil Surgn., Nagpur, from 7th to 9th Feby. 1898.

Hosp. Asst. Ramchandra Krishna, Main Dispy., Balaghat, was temply. apptd. to Balaghat Orphanage.

Hosp. Asst. Dilawar Khan, Balaghat Orphanage, was permitted to retire from the service from 14th Feby. 1898.

Hosp. Asst. Jamal-ud-din, Mungeli Poor-house, to Balaghat Jail and Police Hosps.

The services of Hosp. Asst. Ram Sahai were placed at the disposal of the P. W. D. on Famine duty, Bhandara dist., from 1st Augt. to 22nd Nov. 1897.

The services of Hosp. Asst. Sobharam, on plague duty at Gadarwara Ry. Stn., Narsinghpur dist., are placed at the disposal of the Executive Engineer, Chhindwara-Narsinghpur division, for employment on the Chhindwara Road works.

The services of Hosp. Asst. Sital Parshad, N.-W. P. and Oudh Estab. were temply. placed at the disposal of the Chief Commr. for Plague duty.

Hosp. Asst. Ashfaq Hussin, to the Bijeragogurh Branch Dispy. Jubbulpore Dist.

Hosp. Asst. Ram Datta to the Sehora-Branch Dispy.

Hosp. Asst. Abdul Karim, Sehora Branch Dispy. to Khandwa on plague duty.

N.-W. P. AND OUDH GOVERNMENT.

Surgn.-Maj. D. F. Barry, Civil Surgn., Gorakhpur, to hold visiting med charge of the Basti dist.

Surgn.-Maj. W. G. P. Alpin, Civil Surgn., Fyzabad, to hold visiting med. charge of Bara Banki.

Asst. Surgn. Subhan Ali, Sadar Dispy., Sitapur, to hold civil med. charge of that dist.

Asst. Surgn. Maumatha Nath Basu, Sadar Dispy., Mirzapur, to hold med charge of that dist.

Asst. Surgn. E. H. Thomas, Lecturer, Materia Medica, Medical School, Thomason Hosp., Agra, privilege leave for one month from 5th May 1898.

Asst. Surgn. Wasir Singh Sarin, Lecturer on Anatomy, Agra Med. School, to act as Lecturer, Materia Medica, &c.

Asst. Surgn. Chanan Singh to do plague inspn. duty at Saharanpur.

Surgn. Lieut.-Col. J. McConaghey, Civil Surgn., Lucknow, to hold visiting med. charge of the Sitapur and Kheri dists.

BURMA GOVERNMENT.

Hosp. Asst. Nurruddin assumed charge Civil Hosp., Letpadan, Tharrawaddy dist., 19th March 1898.

Hosp. Asst. Tajimul Hussain assumed charge of duties with Mr. Hertz's Escort at Paingmaw, Bhamo dist., 24th Feby. 1898.

Hosp. Asst. Angat Singh assumed charge Civil Hosp., Paungde, Prome dist., 22nd March 1898.

Hosp. Asst. Maung Kyaw Lun assumed charge Lunatic Asylum, Rangoon, 2nd Feby. 1898.

Hosp. Asst. M. Swaminadha Pillai assumed charge Police Hosp., Bhamo, 2nd March 1898.

Hosp. Asst. M. Swaminadha Pillai assumed charge Outpost Hosp. Myothit, Bhamo dist., 10th March 1898.

Hosp. Asst. Rattam Chand assumed charge Police Hosp, Bhamo, 11th March 1898.

ASSAM GOVERNMENT.

Sick leave for three days is granted to Hosp. Asst. Himat Deen.

Hosp. Asst Saiyad Gyasuddin, a supy in the Goalpara dist., to the med, charge Bijni Dispy. in that dist., from 29th March 1898.

Hosp. Asst. Hara Nath Mukerji, Bijni Dispy., Goalpara dist., to the med. charge of the Bilasipara Dispy, from 1st April 1898.

Hosp. Asst. Rajani Kanta Karmakar, Jhanzi Dispy., Sibsagar dist., was employed as a supy. under Civil Surgn. of that dist., from 16th Oct. to 4th Nov. 1897.

Leave for three months and twelve days is granted to Hosp. Asst. Rajani Kanta Karmakar, a supy., Sibsagar dist, from 5th Nov. 1897.

Hosp. Asst. Baikuntha Chandra Purkaistha, a supy. Kamrup dist, to Sylhet dist. to Coolie Depot Kulaura, from 18th Feby. 1898.

Hosp. Asst. Baikuntha Chandra Chakravarti, Nongpoh Dispy., Khasi and Jaintia Hills dist., to Sylhet dist. to Coolie Depot at Shaistaganj in that dist, from 22nd Feby. 1898.

Hosp. Asst. Hara Lal Shome has passed the English Qual. Exam. 7th March 1898.

Hosp Asst. Mohamed Tahir, Jowai sub-div. Khasi and Jaintia Hills dist., is transferred to the Nowgong dist. and apptd. a supy. for duty under Civil Med. Officer of that dist. from 15th March 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Re. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTHS.

NEILL.—On 7th April 1898, at Ranaghat, the wife of Charles Neill, M.A., M.B., of a daughter.

JONES.—On the 29th March, at Poona, the wife of Surgn.-Major J. M. Jones, A.M.S., of a son.

STUART.—On the 28th March, at Sitapore, the wife of Surgn.-Major J. O. Stuart, A.M.S., of a son.

DEATHS.

GOVAN.—On the 1st April, at Almora, Brig.-Surgn. George Moncrieff Govan, M.D., Bengal, retired; aged 59 years.

STEPHEN.—On the 22nd March, at Dehra Ghazi Khan, Lieut Arthur Sandeman Stephen, I.S.C., Asst. Commr. Rajanpore, the only son of Surgn.-Col. Stephen, Principal Medical Officer, Assam, in his 27th year.

NOTICES TO CORRESPONDENTS.

P. V. N. (Jenapur).—Every member of the Indian Medical Association is entitled to put the letters M. I. M. A. after his name.

T. R. (Rawalpindi).—Your letters will appear in due course.

K. D. R. (Pithapuram).—Butler's Materia Medica and Ringer's latest edition of Therapeutics, both deal fairly fully with most modern drugs and recent pharmaceutical preparations.

G. R. M. (Bara Banki) wishes to be informed of the best method of treating local anæsthesia and local paresis. We have tried subcutaneous injections of strychnine, (5 minims of the B. P. solution in 20 drops of distilled or pure water) used every second morning with much success. The fluid should be injected into the affected area.

T. D. (Kampti).—You will find all the information you require in the new edition of the *Medical Register and Directory of the Indian Empire.*

R. K. F. (Benares City) writes:—"Will any of your numerous readers kindly let me know any effective medicine for the following: Owing to continuous ill health, the growth of the breasts of a young lady has suffered very much. She now wishes that they should attain their proper size. She is between 16 and 17 years and is yet very weak. Any communication will be very welcome."

J. T. (Hosur).—Many thanks. We hardly know how to deal with the matter. A definite statement of the grievance might be published in the *Record* and the offender might take the hint and mend his ways.

Justice.—Next number.

Forlorn Hope.—Your views are sound and they will be published in our next issue. The "parings" you complain of have been done because hints were given from Head Quarters that certain concessions would be granted, and that for the present our demands should be limited to these lines.

N. E. J. (Khairpur).—Only *one* certificate of membership is granted to members of the Indian Medical Association. The fees are paid yearly to meet the expenses of the Association.

Anti Malthus writes:—"Your correspondent 'M. B.,' in last issue, will get all required information about the check pessary from certain chemists in Madras, Bombay and Calcutta.

TREATMENT OF VERTIGO KNOWN AS MENIÈRE'S DISEASE.

DE LA TOURETTE reports the case of a man 58 years old. The patient, who had previously been quite well, was taken suddenly one morning in June 1896, with a violent vertigo, having all the features of Meniere's disease. Following this the patient complained of a persistent noise in the right ear, and of a continuous vertigo, for which he was given quinine in large doses with excellent results. *Apropos* of this case, the author takes up the history, causation, lessons, and diagnosis of Meniere's disease. He points out the rôle played by hyper-excitability of the labyrinth in the production of vertigo, and dilates on the efficacy of quinine in the treatment of the auricular forms of vertigo. The medicament should be given in ten-grain doses once or twice a day for a period of at least a fortnight.—*The Post-Graduate.*

ORIGINAL ARTICLES.

CLIMATE AND MALARIA.

By SURGEON-MAJOR R. R. H. MOORE, M.D., T.C.D., A.M.S.
Jalapahar, Darjeeling.

I.

MEDICAL writers are accustomed to allow themselves such unlimited latitude in the use of the word climate, that at the present day it has almost ceased to have any distinct and definite meaning, and the majority of readers will probably be prepared to admit on reflection, that it does not convey to them any clear and succinct idea.

The fact has been lost sight of, that this word has a very definite meaning; and, moreover, a meaning utterly opposed to the very loose and general sense in which we find it usually employed.

To talk of the climate, say of Italy, of Algiers, of India, may be very suitable to the requirements of polite conversation; but when scientific writers use terms in such a lax way, they lay themselves open to the gravest censure. It is obvious that as long as the word climate is used in this indefinite and unscientific manner, without any clear value being attached to it, no advance can be made in the very important study of the relation of climate to disease.

In going through a considerable portion of the literature of malaria, I have been driven to regard it as almost a moral certainty, that whenever the word climate is used, it is used wrongly. I will presently give some illustrations of this.

Such being the case, it is necessary for me to define the word, so that there may be no mistake as to the sense in which I use it.

In the Encyclopedia Britannia, it is defined as follows — "Climate in its modern acceptation signifies that peculiar state of the atmosphere, in regard to heat and moisture that prevails in any given place, together with its meteorological conditions generally, in so far as they exert an influence on animal and vegetable life.'

Further, there are a number of things which influence climate; as BLANDFORD says (Climates and Weather of India) :—"Climate depends on the latitude, on the height above sea level, on the distance from the sea, on the form and shape of the land surface, on the nature of the soil and its vegetation, and a number of other circumstances for the most part permanent and easy to ascertain." Regarding "weather," which has also to be taken into account, he adds :—"The vicissitudes of weather stand in a different case, and their causes can only be indicated in very general terms."

I need scarcely add that the chief divisions of climate are "Oceanic," "Insular," and "Continental"

From this it appears that climate chiefly depends upon the heat and moisture of the atmosphere, and that it is liable to be profoundly affected by certain conditions, some of which are of an essentially localised character, easily ascertained, and more or less permanent, while others are transitory and more or less uncertain.

The ways in which these various and complex conditions and phenomena may affect life would form a large subject for discussion; some of the main facts are simple enough.

To a large extent they regulate the geographical distribution of the fauna and flora of the globe; they exercise an unbounded influence over plant life, and in the general term "life," we must include death, or the absence of life; and disease, or abnormal life. Plants subjected, whether artificially or naturally, to great changes in the heat and moisture of their atmosphere, are affected in their growth, they may develop abnormally while on the other hand they may become diseased and die.

Amongst the lower animals analogous changes are observed, and the Zoological Gardens of Europe have demonstrated the fact of the excessive susceptibility to disease of animals transported from hotter or colder climates.

In man it is admitted that differences of race are largely of climatic origin, and no one will dispute the fact that whole races would die out if placed under climatic conditions varying widely from what they have been accustomed to.

It is also true that we acknowledge a variety of diseases to which we apply the term climatic; but when any one suggests that these diseases may be simply due to altered conditions of the atmosphere, its heat, moisture, etc., a murmur at once arises and the idea is scoffed at and scouted; and this too frequently in the most superficial and even ignorant manner.

As far as my knowledge goes, nothing at all worthy of the name of criticism has ever appeared from the pens of those who set themselves up in opposition to such a view, of expressions of individual opinion, and frequently vehement expressions there are plenty, but as for refutation supported by reason, argument and evidence, none exists. Nor indeed will such be possible until our knowledge of climate and its effects is put upon a much better footing than it stands on at present.

The extract that I have given above from BLANDFORD'S work shows us that climate is dependent upon a large number of conditions that may be purely local, this is a very important consideration, and at once illustrates the amount of ignorance displayed in writing about the *climate* of India, BLANDFORD correctly uses the word in the plural, and it is perfectly plain that any country of any extent has not one climate, but a variety of climates.

Climate then, properly considered, is a very local matter, and it is quite possible to have two places only a few yards apart, yet with different climates. A plant growing on the northern side of a wall gets less sunshine and warmth (in the northern hemisphere) than one on the south side, it has therefore a different climate; the air over a damp sub-soil or marsh is more loaded with aqueous vapour than the elevated and dry land a hundred yards away, the climate is different, and the climate in a wood is distinct from the climate of the open ground close by

These may be termed local climates, and what I contend is, that it is only with such local climates we have to deal in the investigation of disease. When dealing with sickness in a specified locality, it is certainly useless to ascertain the climatic conditions of a place miles away, the only portion of the atmosphere that can affect a man is the portion in his immediate vicinity, his climate

depends upon the state or condition of this portion of the atmosphere.

From these considerations we arrive at *a corollary of the very greatest importance.* MAN HAS THE POWER TO MODIFY THE CLIMATE OF A PLACE.

He can alter the nature of the soil, and he can govern the vegetation, by draining a marsh he can lessen the amount of moisture in the air, and he can alter the temperature of a place by cutting down a wood or by planting one. Into these questions I will enter more fully by and by.

Plain and obvious as it is that man can modify local climates, and although he has actually done so in many occasions with excellent effect, the fact has not only been overlooked, but has even been denied by some of the best authorities.

JACQUOT[1] for instance a French writer of deservedly high repute, the author of the only attempt at a detailed criticism of the climatic theory of malaria that I have seen, based this criticism entirely on the idea that climate is immutable, and that man has no power to control it.

"The object of these memoirs," he says, "is to combat the opinion of some dissentients, fewer in France than Italy, but equally obstinate in both who deny the paludal miasm, and attribute the generation of these fevers to meteorological influences."

These memoirs were directed against MINZI, FOLCHI, BROCCHI and more especially ARMAND.

He goes on to say :—"A government before devoting large sums of money to improve the hygienic condition of a country by draining its marshes must first decide, that it is in these marshes that the cause of the disease really is. If, on the contrary, the cause of the disease exists in the climate and in meteorological conditions *which man is powerless to modify*, humanity and hygiene should repress efforts to colonise countries condemned to eternal unhealthiness."

He gives the following example :—"The temple of Serapis, on the coast of Pouzzoles, was inundated by the elevation of the bed of the sea, fever appeared. The Chevalier NICOLINI drained it and the fever disappeared ; again the water returned and again the disease broke out, must we say that the climate was changed, the climate with its meteorological conditions, its heat, its moisture ? Surely not !"

Such is JACQUOT'S exposition of climate, a sufficiently erroneous one, I think, where the influence of climate on health is concerned. He is certainly right if he contends that the climates of the whole of Italy did not vary with the changes to which the temple of Serapis was subjected ; he is certainly wrong if he asserts that the local conditions of the atmosphere underwent no alteration.

But the climates of the rest of Italy had no bearing upon the case whatever, the conditions were purely local, the fever was local, and so were the changes in the heat and moisture of the atmosphere.

JACQUOT'S whole memoir is so vitiated by the sense in which he uses the term climate, as to be practically useless.

KELSCH and KIENER[2] have fallen into several errors on the subject of climate, which it is the fashion to consider such a simple matter, that I doubt if any lecturer on climatic disease ever wastes a word upon it.

"In all parts of the world," they say, "we find districts close together, *with the same climate*, some of which are notoriously malarious, while in others malaria is either absent, or only prevails in a non-endemic form," and as examples they give,—it is almost incredible, yet it is true, these up-to-date authors mention as districts lying close together and having the same climate, Bengal and Madras !

This is an example of the way in which the poor word climate is abused, which, I think, puts all others into the shade.

In continuation of this passage they say :—"From this contrast we are justified in concluding that the cause of the fever is not to be found in the climate ;" the value of such a conclusion is obvious, but they continue and immediately fall into another mistake, and such a fundamental one that I am puzzled to know if it does not equal, or even exceed that just quoted.

"If further evidence were required," they say, "it is at hand in the well-known immunity enjoyed by ships lying off the most unhealthy coasts."

According to these authorities then, the crews in the ships and the people on shore have the same climate ; and thus they deny one of the primary divisions of climate, the "Oceanic."

Now the oceanic climate is one apart from and distinct from all other climates, and its most important characteristic is equability. And it is plain that a ship lying off a coast enjoys this climate to a greater or lesser degree, in proportion to its distance from the shore.

It has never been laid down at what exact distance from the shore the oceanic climate may be said to begin ; but there is every reason to believe that this distance must be very small, whenever, indeed, the influence of the land on radiation, both solar and nocturnal, ceases to be felt.

In another place KELSCH and KIENER fall into JACQUOT'S old blunder, for they say :—"This progressive lowering of the death-rate from malaria cannot be attributed to the climate, for that is immutable."

Nor are English writers any more correct when discussing climate, thus DAVIDSON[3] in his standard work on "Geographical Pathology" says of the Valley of Amazon, "when the forest has been cleared and the earth disturbed, the character of the climate will become better known." This is unfortunately equivalent to saying, when the climate is altered, we will know what it is like, for as I will have occasion to show later on, forests exercise a most important influence over climate.

But I think I have given enough illustrations to justify anything I have put forward regarding the misuse of this word.

In Ague we have a disease which seems to differ from all other diseases in many ways, and in none more than in this. That it is in the power of man to exercise such complete control over it. We can avoid it, we can cure it, we can exterminate it from haunts where it has long been endemic, and we can produce it in places where it was formerly unknown.

Outside of the domain of diagnosis we really would not want to know very much more about it, if it were not for the fact that the rationale of the methods by which it is either abolished or produced, are either misunderstood, or wilfully obscured.

In the course of this paper I will endeavour to point out that *wherever malaria has been either banished or introduced, there has been a coincident change in the local climate, that is, in the climate of the place concerned.*

DRAINAGE.

Of all the methods that man has employed to get rid of Malaria, Drainage holds the first place. I may remark, however, that drainage has its limitations, the colder the climate the more successful it is. In England, Holland, France, etc., it has worked wonders. It has not been so uniformly successful in sub-tropical climates like Algiers; while in equable tropical climates we look for examples of its success in vain.

My present intention, however, is merely to discuss the rationale of the process. In what way does drainage make a marsh healthy? How does it remove malaria? LAVERAN has recently suggested that it does so by exterminating mosquitos, but I hardly think this idea is worth discussing.

A great deal has been written on the subject, and the attention of most writers has been concentrated upon the matter of *moisture*. Moisture was one of the factors supposed to be necessary for the propagation of the malarial germ, it was removed, therefore the germ could not flourish; when drainage was neglected, however, it appeared again, and this was explained by TOMMASI CRUDELI[4] who appears to have been particularly unfortunate in his fanciful speculations, by saying that, "like the seeds of plants the ferment can lie dormant in the ground for long intervals."

The idea, then, was that drainage reduced the soil to such a state of dryness that the seeds of plants could not germinate in it.

It is difficult to understand why so much stress has been laid on this matter of moisture. The question is, what is the exact amount of moisture which observations from all points of the globe lead us to believe is necessary for the existence of this supposed germ? and do these accumulated observations lend any support to the idea that this germ is very particular about the amount of moisture that is supplied to it, refusing to thrive unless the quantity lies within certain narrow limits?

Far from this indeed, they point to the opposite conclusion; for we find malaria flourishing under all sorts of conditions and degrees of moisture.

In Senegal, for instance, "the time when most of the country is under water is the time when fever is most prevalent" (DAVIDSON[5] quoting Borius); while, on the other hand, it flourishes on the barren shores of the Persian Gulf, (EVATT), "In the bald, arid, and sterile table land of New Castile, one of the most rainless steppes in Europe, and again, upon the tableland of Iran, which lies always under a cloudless sky and bright sun and has no water from natural sources." (HIRSCH[6]).

From all this it is plain that moisture does not deserve the important position that has been assigned to it, and that it is impossible to believe that the whole beneficent action of drainage depends upon the fact that some of the moisture has been withdrawn from the soil.

The action of drainage is as little understood by medical authors as the meaning of climate; so we will turn to an agricultural expert and see what he can tell us about drainage.

Mr. D. S. FISH says:—"Drainage, as popularly understood, means the art of laying land dry. This, however, is a very imperfect definition, both of its theoretical principles and practical results. Paradoxical as it may appear, drainage is almost as useful in keeping land moist as in laying it dry. Its proper function is to maintain the soil in the best hygrometrical condition for the development of vegetable life. Drainage has also a powerful influence in altering the texture of soils. It enriches their plant feeding capabilities, elevates their temperature, and improves the general climate of a whole district, by increasing its temperature, and removing unhealthy exhalations. It lays land dry, by removing superfluous water; it keeps it moist by increasing its power of resisting the force of evaporation: * * * It heightens the temperature of the earth, by husbanding its heat, and surrounding it with an envelope of comparatively dry air, and by substituting the air for water withdrawn through the interstices of the soil * * the more porous a soil is, the greater is its power of resisting evaporation. For this reason porous soils are more moist in hot weather than those of a more tenacious character."

In this full and scientific account of the action of drainage there is much food for contemplation. In the first place we see that medical writers have been content with, and have not got beyond the *popular idea* that the purpose of drainage is to dry land. We see that drainage does not dry land, but brings it into the best condition as regards moisture for the germination of seeds. So what becomes of TOMMASI CRUDELI'S parallel about seeds lying dormant?

The changes brought about by drainage are complex and comprehensive, the temperature is elevated, the state of the atmosphere modified, life, both animal and vegetable, is metamorphosed, in a word *the climate of the place is changed.*

Thus I have shown that when malaria is exterminated by drainage, there is a coincident change of climate.

Besides drainage there are two recognised methods of making marshes healthy (1) filling them up; (2) converting them into lakes

French writers describe two methods of filling up, or obliterating marshes, "enterissement" or filling up by manual labour, and "colmatage" or filling by deposits of alluvium, either brought by the sea, or by rivers turned from their sources.

Let us see what happens in these cases. The first question is, when a marsh is obliterated, to what level must it be filled up? This requires consideration, for a marsh is an ill-defined condition; for the existence of a marsh it is not necessary that there should be any standing, or rather lying water, any damp place is a marsh; no water need be visible.

For a place to cease to be a marsh it is necessary that the water level should be some distance below the soil level; but what distance?

There are two things which are characteristic of all marshes, which will help in the answering of the question:

one is that the vegetation is rank and luxuriant from excessive moisture, the other is that the atmosphere always contains an excess of moisture which may be seen in the form of mists at night.

The water level then should be sufficiently below the surface to be out of the reach of the roots of the plant life, and also to be unaffected directly by the force of evaporation.

But raising the soil to such a height above the water must obviously have the same affect upon the surrounding atmosphere as the reverse process of lowering the water level by drainage. So that the results upon the local climate are precisely the same in both cases.

The next question is—How can the mere converting of a marsh into a lake affect the local climate? This opens up some very important and interesting points relative to physical phenomena.

The chief difference between a marsh and a lake is the depth of the water.

We have seen, according to BLANDFORD, and the same will be found in every systematic writer on the subject, that certain conditions of the earth's surface exercise a potent influence on climate. Now one of the most important of these conditions is an expanse of water such as a lake.

The Encyclopedia Brittannia, says:—"The two chief causes which tend to counteract the effects of terrestial radiation are forests and sheets of water." "deep lakes may be regarded as a source of heat during the winter."

An explanation of the last paragraph will serve to show the whole climatic difference between lakes and marshes. How can deep lakes become a source of heat? The answer is, by abstracting cold.

At sunset the earth rapidly cools, it radiates the heat taken up during the day into space, this is called nocturnal radiation; it varies very much in intensity in different parts of the world, reaching its maximum in the hottest places.

As the earth cools, the air in contact with it cools; it becomes colder than the air further removed; its specific gravity increases and it tends to flow down hill sides to settle at the lowest levels.

If there is a deep lake there, the cold air settles on the surface of the water, by doing so it cools down the surface layer which sinks to the bottom owing to a consequent increase in its specific gravity, leaving another layer of warmer water at the top.

In this way the earth imparts its coldness to the air, the air to the water, and the water conveys it to the bottom of the lake. It is obvious that a shallow marsh cannot act in this way, on the contrary all the cold air collects on its surface and in its neighbourhood, increasing the amount of dew deposited and forming mists.

There is also a marked contrast between the phenomena related to lakes and marshes during the day. There is a wide difference between the action of the sun's rays on land and water, by land the rays are almost completely arrested at the surface, therefore the surface, if bare of vegetation, receives the whole heat. The nature of the soil is of importance, and sand being the worst conductor, it is on sandy deserts that the heat reaches its maximum.

Where the rays fall on water, the effect is different; the rays penetrate water to the depth of between 500 and 600 feet, the same amount of heat then that the surface of the earth receives is distributed through 500 feet of water. Where the water is shallow, as in a marsh, the rays are arrested at the bottom which rapidly heats and imparts the heat to the water, hence the temperature of shallow water is very much raised and a correspondingly large amount of evaporation takes place.

It is therefore plain that the conversion of a marsh into a deep lake has an important influence on the local climate.

(*To be continued.*)

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A REPLY TO THE ACCUSATION MADE BY MR. LEONARD HILL AGAINST THE HYDERABAD CHLOROFORM COMMISSION. *

BY T. LAUDER BRUNTON, M.D., F.R.S.,

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THE action of anæsthetics is of constant interest to the medical public; but the admirable address of Dr. AUGUSTUS WALLER and the other papers read at the Annual Meeting of the British Medical Association have increased the attention which the subject usually excites. For some time back I have been anxious to discuss some questions regarding the causation of death during anæsthesia, especially in relation to the work of the Hyderabad Commission, but the subject is so large and the time at my disposal is so limited that my intention has been postponed from week to week. I now feel that before either discussing the subject or replying to criticism, I must first of all answer certain accusations which have been brought against me by Mr. LEONARD HILL.

In the *British Medical Journal* for 17th April, 1897, a lecture was published by Mr. HILL on the Causation of Chloroform Syncope, and it was favorably noticed in a leading article of the Journal for 24th April. In this lecture Mr. HILL not only criticised severely the work and conclusions of the Hyderabad Commission, but he brought against it charges of (1) prejudice, (2) carelessness, (3) ignorance, and (4) incompetence. At the time when Mr HILL's lecture appeared, the pressure of other engagements made it absolutely impossible for me to do more than write a few lines in the *British Medical Journal* of 1st May, asking readers to suspend their judgment on the question.

Had Mr. HILL been a medical student trying to gain a scientific reputation for himself by trying to detract from that of others, I might have left, his accusations unanswered; but Mr. HILL has already gained for himself a name as a scientific worker; he is a lecturer on physiology at the London Hospital; he is Secretary of the

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Physiological Society, and the opinions he expressed in his lecture have not only been quoted with approval by a number of subsequent writers, but they were endorsed by a leading article in the *British Medical Journal*, of 24th April 1897, and consequently, however disagreeable the task may be to me, I must reply to his charges.

Although nominally directed against the Hyderabad Commission, all these charges, with the exception of the first, are really directed against me personally, for, as Surgeon-Lieutenant-Colonel Lawrie says in his letter to the Journal of 4th September 1897, p. 617 :—"The work of the second Commission was directed throughout by Dr. Lauder Brunton." For this work I am, in fact, responsible, and I am ready to admit that for any faults or shortcomings I alone am to blame. The most important deficiency in the research is one to which Mr. Leonard Hill refers, not in his lecture, but in a letter to the *British Medical Journal* of 31st July 1897, p. 313, where he says that the Commission failed to throw any light on "the causation of those accidental deaths which take place in the primary stage of anæsthesia." These deaths in man are probably due in great measure to fear, anxiety, or other emotional excitement, and may arise from the respiratory and circulatory changes, either caused directly by these emotions or indirectly through the increased susceptibility to shock from pain or suffocation which they produce.

The members of the Commission were quite conscious of this deficiency, and they carefully considered whether it was not their duty to attempt experimentally to produce in animals by causing pain and terror in them, a condition similar to that which may occur in nervous human beings previous to an operation under anæsthetics. They unanimously decided against doing so on the ground that the pain and terror they would have to inflict upon animals in order to produce in them a state at all like that which occurs in exceptionally sensitive human beings would be so great that they did not feel justified in doing the experiments. In coming to the decision to apply the anæsthetics so as to cause neither pain nor terror to the animals, they were perfectly conscious they were excluding two of the most powerful factors of shock from their experiments, and laying themselves open to the charge which Mr. Leonard Hill brings against the Commission in his letter.

That there are some other deficiencies I am perfectly ready to acknowledge. It would have been advisable to repeat several experiments if we had had time, and it might have been advantageous on several occasions to use other apparatus if it had been available. But there are few, if any, researches which are free from defects, and I hope to show that in that of the Hyderabad Commission there are none of sufficient gravity to warrant the sweeping condemnation Mr. Leonard Hill has passed upon it. I have no excuse whatever to offer for these deficiencies, except the shortness of time at my disposal. This time was shorter than might at first be supposed. I had less than a fortnight in which to collect apparatus, for though I received notice of Surgeon-Lieutenant-Colonel Lawrie's proposal a few days before it was published in the *Lancet* on 21st September, yet the P. and O. steamer *Kaiser-I-Hind* left Southampton on 27th September 1889, and luggage had to be on board a few days before. I reached Hyderabad on the evening of 21st October and the Commission began work without apparatus on 23rd October, with apparatus on the 25th, and continued until 18th December. I had *carte blanche* from the Nizam's Government with regard to instruments, and with the aid of my friend, the late Professor Roy, I collected quickly together all the apparatus which I thought would be requisite. I had in all, however, less than a fortnight in which to correct the equipment of a laboratory, four days in which to fit it up and, Sundays being excluded, forty-seven days in which to do the work with apparatus. But with the exception of time, nothing was left to be desired. The generosity of the Nizam, the intelligent interest taken both by himself and his Ministers in the work, the courtesy and zeal of Surgeon-Lieutenant-Colonel Lawrie, as well as of everyone connected with the Commission, afforded every possible assistance in carrying out the work. In his letter to the *Lancet* of 21st September 1889, Surgeon-Lieutenant-Colonel Lawrie undertook to place the Hyderbad Commission entirely at the disposal of the representative of the *Lancet*, and to act under his direction. The Commission, he said, "will provide all instruments and appliances, and everything which may be required for the experiments, and will, without bias, do all in their power to assist the representative of the *Lancet* in arriving at the truth." This promise Surgeon-Lieutenant-Colonel Lawrie loyally carried out. He placed everything at my disposal, so that (1) I drew up the general plan of the research, and (2) stated what experiments I thought were necessary ; (3) I did the first one or more of every set of experiments myself ; and (4) I was present and superintended all the experiments till near the end of the research, when I was obliged to be absent for some time owing to an attack of dysentery. I am therefore personally wholly responsible not only for the plan of the research in general, but for the plan of each experiment in particular and for the execution or supervision of each experiment, as well as jointly responsible with my colleagues for the general conclusions. Having now shown how it is that Mr. Hill's accusations, although nominally directed against the Hyderabad Commission, are really made against me personally, I shall take them up and answer them *seriatim*.

His first accusation is that of prejudice, and of a desire on the part of the Commission to prove the correctness of a preformed conclusion, instead of trying to find out the truth. He says on page 957, "The prejudiced enthusiasm of Surgeon-Lieutenant-Colonel Lawrie," and page 960, "The Hyderabad Commission engaged on a wild goose chase to prove that respiration ceases before the heart fails, find in their tracings the proof that the failure of respiration is the primary cause of death. I, on the other hand, maintain that not only my own tracings but theirs too, conclusively prove that failure of circulation is the primary cause of the failure of the respiratory centre."

The first part of those quotations is directed personally against Surgeon-Lieutenant-Colonel Lawrie, but in the second Mr. Hill attacks us both. Now, whatever the views of Lawrie may have been, my own decided view, when I went out, was that stoppage of the heart was

certainly one of the dangers to be apprehended from chloroform anæsthesia. Nearly twenty-five years ago, I was accustomed to show to my class an experiment by which a current of air from the same bellows was divided by a Y tube into two equal parts, one of which passed through chloroform into the trachea of one animal while the other passed through ether into the trachea of another similar animal. Both animals were thus thoroughly anæsthetised, and the movements of the heart in each were made visible to the class by a needle, to which a long straw bearing a flag at the top was attached. When the anæsthetic was pushed by working the bellows rapidly, the heart of the chloroformed animal was quickly stopped, while that of the etherised animal went on beating with hardly any change. In a paper on "One of the Causes of Death during the Extraction of Teeth under Chloroform," *British Medical Journal*, 4th December 1874, I had also expressed the opinion that syncope from failure of the circulation was one of the causes of death during chloroform anæsthesia.

In my *Experimental Investigation of the Action of Medicines, Appendix*, p. iv, I said :—"In operations on the abdominal viscera in dogs, for example in making gastric fistulæ, death sometimes occurs from shock, although the animals are completely under the influence of chloroform. For such operations ether is preferable, as it increases rather than diminishes the power of the heart."

My own expectation, therefore, was that we should find syncope from failure of the heart and circulation to be a powerful factor in death during chloroform anæsthesia, and the first experiment with a manometer made by the Commission on 25th October was on the effects of various operations likely to produce shock. To the evidence which led me to alter my views, I will afterwards refer, but I think that the following annotation from the *Lancet*, 7th December 1889, p. 1183, shows that I did not go out on a wild goose chase to prove that the respiration ceases before the heart fails, and that this accusation of Mr. HILL is unfounded.

> We have just received from Dr. LAUDER BRUNTON the following telegram, which we print *verbatim* —'Four hundred and ninety dogs, horses, monkeys, goats, cats, and rabbits used. One hundred and twenty with manometer. All records photographed. Numerous observations on every individual animal Results most instructive. Danger from chloroform is asphyxia or overdose · none whatever heart direct" "These results apparently indicate such a complete reversal of the view held by Dr LAUDER BRUNTON at the time he left England—that one of the dangers resulting from chloroform is death by stoppage of the heart—that the details of the experiments made by Dr BRUNTON, and the reasons for the conclusions he has evidently arrived at, will be awaited with the greatest interest by the profession."

The second accusation brought by Mr. LEONARD HILL is that of carelessness. He says "upheld by a series of experiments, many so careless in execution that they could not for one moment be accepted by a trained physiologist."[1] This sweeping statement of Mr. HILL's practically condemns every experiment of the Hyderabad Commission, for he does not specify those to which the condemnation applies, and in the absence of such specification his condemnation may apply to all. It appears to me that Mr. HILL, in bringing such a sweeping accusation against the Commission, was bound to support it by reference to definite experiments, and I now call upon him to adduce his evidence. "I have looked through Mr. HILL's paper carefully, but the only evidence which I find he brings forward of carelessness is that of the imperfect application of electrodes to the vagus. Just at the time when I began to direct my own attention chiefly to the supervision of the mercurial kymograph, and to delegate to Mr. CHAMARETTE the task of introducing cannulæ in the arteries and veins, or of exposing and irritating the vagi, the experiments were not always completely successful. Thus in No. 68 the introduction of the cannulæ was not accomplished without damaging the artery, and the vagus was not rightly exposed, but on every occasion where we had the least reason to suspect any imperfection in the experiment—for example, in experiment No. 95, where there was a doubt whether the vagus had been rightly stimulated—such imperfection was carefully recorded in order that it should not mislead either ourselves or others in the interpretation of our experiments. With the exceptions which the Commission carefully recorded, the experiments were done with the greatest care, and unless Mr. HILL can bring forward more definite evidence to support his assertion that many of the experiments were so careless in execution that they could not for one moment be accepted by a trained physiologist, I believe that every physiologist will decide that his accusation is unwarranted.

In regard to the cases of accidental death, Mr. HILL draws a comparison between the carelessness of which he accuses the Commission and his own accuracy, for, as he tells us, in all cases of chloroform syncope occurring during primary anæsthetisation he carefully observed the symptoms. The Chloroform Commission carefuly observed the symptoms in a much larger number of cases than Mr HILL, but when deaths occurred during carefull observation they were not classed as accidental. I still fail to see how Mr. HILL could properly class his cases as accidental if he was observing them all the time. One of the accidental deaths occurred while I was performing tracheotomy upon an animal, and was of course in a favorable position for observing its respiration, but my attention was concentrated upon the operation, and I failed to notice the failure in respiration untill too late. This may no doubt be put down to carelessness upon my part, but it was just such instances of carelessness which form one of the most valuable parts of the report as tending to throw light upon the causes of so-called accidental death occurring in actual practice.

Thirdly, I shall now take up Mr. LEONARD HILL'S charge of ignorance of physiological methods. Considering that I have been trained by BRUCKE, ROSENTHAL, KUHNE and LUDWIG, this charge seems *a priori* improbable ; but such training does not disprove Mr. HILL'S charge. I will therefore take the instances which he brings forward. He says :—"The Hyderabad Commission failed to obtain this effect, although they injected 20 c. cm. of pure chloroform into the jugular vein in successive doses. The cause of this failure is to be found in the ignorance of precise physiological methods which was unfortunately betrayed throughout much of the work of the Commission."[2] Mr. HILL states that in our experiments the drug remained in the veins. If this statement of his were true, the chloroform ought not to

have produced either narcosis or death as it did. He adduces the fact that we injected the chloroform into the jugular vein after ligature as one evidence of my want of knowledge of exact physiological methods. I have many times injected drugs into the veins of animals in which the blood was freely circulating, but the advantages of this method do not, I think, counterbalance its defects. Mr. HILL may think that this is a mere opinion of mine founded on ignorant stupidity or prejudice, but some eminent physiologists have come to the same conclusion as myself. The method I employed is the one described by BURDON SANDERSON in his *Hand-book for the Physiological Laboratory*, p. 238; by CLAUDE BERNARD in his *Lecons de Physiologie Opératoire*, p. 262; by CYON in his *Methodik der physiologischen Experimente*, pp. 49 and 50; and by GSCHEIDLEN in his *Physiologische Methodik*, p. 538. It is true that CLAUDE BERNARD describes[3] the method of intravenous injection which Mr. HILL regards as the only proper one, but the only advantages which he attributes to it is that of simplicity. LIVION, who reproduces BERNARD's figures and also describes both methods,[4] mentions the advisability of having a ligature round the vein in order to prevent possible bleeding. As the two latter authors describe both methods they may be absolved from ignorance, but as BURDON SANDERSON, CYON, and GSCHEIDLEN all recommend the method which I adopted, they must all necessarily fall with me under Mr. LEONARD HILL'S condemnation of being ignorant of physiological methods.

Besides ignorance of exact physiological methods Mr HILL accuses me of incapacity to interpret aright the tracings of the blood pressure which the Commission obtained. I have already[5] admitted that I am responsible for the interpretation of the tracings, so this accusation of Mr. HILL'S is brought against me even more directly than the others. He says —"Now on examining the tracings of the Hyderabad Commission I find an absolute' agreement between their results and my own. . . '

"Although the tracings are so much alike, the interpretations are widely different. The Hyderabad Commission engaged on a wild goose chase to prove that respiration ceases before the heart fails, find in their tracings the proof that the failure of respiration is the primary cause of death. I, on the other hand, maintain that not only my own tracings but theirs too, conclusively prove that the failure of circulation is the primary cause of the failure of the respiratory centre" From this statement I think any unprejudiced reader would infer that it was upon their tracings that the Hyderabad Commission relied for proof that failure of respiration is the primary cause of death, but this was not the case. The proof that failure of respiration is the primary cause of death from chloroform narcosis consisted in the fact that 141 animals were chloroformed to death by the first Commission, and 430 by the second, and in every one of these 571 animals the respiration failed before the heart. It was evidence of this sort that led me to modify my views regarding the risk to the heart by the action of chloroform directly upon it.

A similar charge of inability to interpret the tracings correctly was brought against me by Drs. GASKELL and SHORE, who say regarding the Hyderabad Commission:

"Their large number of curves confirm again and again the observation of others, and point to heart failure as the cause of the fall of blood pressure."

In his letter of 31st, July 1897,[6] Mr. HILL says:—"The truth which I seek to establish is that chloroform kills by primarily paralysing the whole of the vascular mechanism." But in his lecture of 17th, April 1897, it is upon the paralysis of the vessels that he lays most stress. A comparison between Mr. HILL'S lecture and the above quotation from Drs. GASKELL and SHORE, will, I think, show how just was the conclusion arrived at by the Hyderabad Commission in the interpretation of the curves we obtained; for, as I pointed out,[7] "it was precisely because the second Hyderabad Commission, when going over their experiments, thought that although their results indicated paralysis of the vasomotor centre as a cause of the fall in blood pressure, yet the evidence before them was not conclusive that they did not formulate any conclusion on the subject." They left it as a point to be decided by further research.

To one statement made by the Hyderabad Commission, Mr. LEONARD HILL says that he "must give a direct denial." This statement is to the effect that inhalation of chloroform has no effect on the length of the period in which the heart can be maintained in arrest by electrical excitation of the vagus. One would have thought that only an intense feeling of duty would have led Mr. LEONARD HILL to the use of such language, yet later on he states that while he has "been able to kill animals by repeated and prolonged vagal arrest of the heart, such complete vagal arrest of the heart is never induced by chloroform, and therefore these experiments are of no clinical interest."

Fourthly, the last accusation may be regarded as one either of ignorance or carelessness, for he does not say which it is; but had his account been accurate, Mr. HILL would have been perfectly justified in condemning me as incompetent He says "The Hyderabad Commission carried out a few experiments on the effect of the alteration of the position during chloroform narcosis. The workers paid no attention to the fact of the absolute necessity of placing the arterial cannula in the axis around which the animal is turned Their experiments were thus vitiated by the hydrostatic effect of gravity on the column of fluid in the tube which connected the cannula with the manometer. By the neglect of such a simple precaution the experiments on this point were rendered entirely worthless"[8] I have sometimes felt inclined to ridicule the strong language in which some foreign writers, and especially very young ones, criticise each other's work and denounce each other's statements as absolutely false, and to rejoice that scientific literature in this country was free from this blemish. In his lecture Mr. HILL met one statement of the Hyderabad Chloroform Commission with a flat denial where, perhaps, less strong language might have been admissible, but I little thought it would be my own lot to use the expression "absolutely false" in relation to any statement contained in a scientific paper, yet there is no other by which I can characterise Mr. LEONARD HILL'S statement, for it is without the slightest foundation in fact. When I read it I thought that it must be a misprint, and that he meant to say that we

had paid no attention to having the axis round which we turned the animal pass through the indifferent point in its vascular system, which, as HERMAN and his scholars BLUMBERG[10] and WAGNER[11] have shown, passes through the apex of the heart. Had this been the objection raised by Mr. HILL to our experiments, it would have involved a matter of opinion, and something might have been said on both sides. But his statement involves a matter of fact, and not of opinion, and as such it can only be met by an absolute denial. The precaution which he says *was not taken* by the Hyderabad Commission *was taken* most carefully. For knowing the fallacy to which he refers, I made it my own special charge to see that (1) the cannula in the carotid, (2) the axis upon which we turned the animal, and (3) the horizontal limb of the manometer, were in the same horizontal plane, or, in other words, were at the same level, and remained so throughout the experiment. I cannot think that Mr. LEONARD HILL would publish a falsehood wilfully, but a falsehood his statement certainly is and I shall be curious to learn how he has been led to make it.

I now leave it to the "trained physiologists," whose mouth-piece Mr. LEONARD HILL has constituted himself, as well as to the whole medical profession, to decide whether the evidence that Mr. HILL has brought forward is sufficient to justify the charges of (1) prejudice, (2) carelessness, (3) ignorance, and (4) incompetence, which he has brought nominally against the Hyderabad Chloroform Commission, but really against me personally.

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OBSERVATIONS ON EPIDEMICS OF CHOLERA IN INDIA WITH SPECIAL REFERENCE TO THEIR IMMEDIATE CONNECTION WITH PILGRIMAGE.

By CHARLES BANKS, M.D., D.P.H.
Late Chief Medical Officer, Puri.

FERTILE Orissa, with her 944,988 souls scattered over 2,473 square miles, is to India what Jerusalem was to the descendants of JACOB. Few indeed of these people who profess other than Hinduism and yet 28,794 are concentrated inside of *three* square miles of sacred ground which contains the famous temple of Jagannath. This little place, which is situated in the south-eastern corner of Orissa and is only 300 miles from Calcutta, is call Puri, more reverently known as "Juggernath," whither for many hundreds of years thousands of religious devotees have yearly flocked in an almost endless stream to worship at the shrine of Jagannath, or take part in the *jatras* for which this holy city is famous, and of which the most important are the Dolejatra (swing festival in March), the Râthjatra (cost festival in June or July) and the Panchak or five-days festival in October or November.

Some idea of the magnitude of these assemblies will be afforded, by the fact that during June 1893, no less than 200,000 pilgrims thronged together at Puri to witness the expected reincarnation of their god Jagannath, and simply more than overcrowd the town itself as well as the halting stations along the whole length of pilgrim routes.

Every religious devotee *has* to bathe before he cooks his food or engages in worship, but as he is not over particular as to how close to the source of water supply he deposits his effete matter, whether liquid or solid, the wells and tanks become fearfully fouled and there is little, if anything, in the shape of conservancy arrangements.

Tired and famished with the day's march, these pilgrims frequent the route bazaars to purchase their food supplies, which are not always of the best, and the wily banniâh has no compunction in passing off damaged grain, &c., on travellers who *must* take what they can get or starve.

Mile after weary mile is trudged in bodily fatigue on an ill-fed stomach till they arrive at *their* destination when they make up for lost time by *feasting* greedily on the piles of rich viands the Brahmins have cooked for them. These and other things combine to render beautiful Puri, with her magnificent temples and thrice sacred shrines, a veritable plague spot, the valley of death, a pest-house whence streams of disease constantly issue and the ever open grave of crowds and crowds of pilgrims, much the greater number of whom are superstitious females who are far more easily induced than are the males or terrorised too readily by pilgrim hunters who scour the country, dilating upon the blessings without number to be gained by bowing before Jagannath's throne at Puri and depicting the hideous torments to be meted out to such as will not visit the holy city, even though they are physically unfit to endure the fatigue and depressing influences of long and tedious marches, and are notably more ignorant and regardless of the consequences of disobeying the ordinary laws of health. This is one set of reasons why females are so prone to contract the disease, and it is a general opinion in Orissa that cholera of a severe type only appears when low-caste Bengalee pilgrims are in the majority, and that the disease seldoms breaks out or attains serious dimensions amongst up-country people who are of stronger physique and cleanly in their habits —opinions to which close observation warrants professional subscription.

True, cholera may occur simultaneously and at a considerable distance from pilgrim routes; but careful investigation will, in the majority of instances, trace the primary cause to arrival of cholera-stricken pilgrims, or to a member of the village returning home already suffering, or who had been exposed to the disease prevailing amongst pilgrims along pilgrim routes and attacked on his arrival.

Considering the very large areas over which Civil Surgeons exercise control, and the impossibility of immediately proceeding to the 'place of outbreak,' in every instance, it is much more difficult in India, than in most countries in the world, to arrive at definite conclusions regarding the progress and other points in the history of epidemics.

Comparing the cholera mortality of 1893, when 200,000 pilgrims assembled at Puri with that of 1894, we learn some curious facts *re* the *importation* of the disease.

	Total Deaths.		Among pilgrims.	
	1893.	1894.	1893.	1894.
Puri Town ...	271	109	245	75
,, Sadar Circle ...	522	517	310	486
Pipli Circle ...	610	715	333	636
Khurda Circle ...	163	334	98	310
Gope Circle ...	183	24	8	24
Banpur Circle ...	12	2	8	2.

Or, in other words, that of 5,462 victims claimed by cholera in those two years no less than 2533 were carried off between July and August, when the car festival was at its height. It was also noticeable that while in 1894 the epidemic starting with a *female pilgrim* on the 2nd July increased in virulence till the 9th *idem*, when with the efflux of pilgrims it began to abate and altogether ceased on the 13th August, by which time *all* the pilgrims had departed for their homes. These facts coupled with the comparatively small death-rate from cholera in the Banpur and Gope districts, which with their 697 square miles and 229,257 inhabitants are not in the direct line of pilgrim traffic, go to show how exclusively the cholera epidemics confined themselves to pilgrim routes. To this evidence add that adduced by the second epidemic of 1894, which was ushered in by four *female* pilgrims on the 6th October and remained till the 20th November, by which time it accounted for 101 deaths out of 135 cases in Puri alone.

The points of special interest in connection with the second epidemic were :—(1). It somewhat abated from 16th to 21st October, when it was rewakened to violent action by some pilgrims landed at Cuttack by the steamer *Balaram*, and one of whom was picked up on the Cuttack-Puri road in a dying condition. (2). From the 1st to 8th November was another lull with only four cases, but on the 9th November, which was the first day of the Panchak festival, the number of pilgrims increased, and by the 13th *idem* there were 15 more cholera victims, while from the 14th to 20th November there were 9 cases and no more to the end of the year. (3) During the month of Kartick (October-November) most of the residents of Puri increase their sanctity by fasting the whole day and at night only eating *mohraprasad*, *i.e.*, rice cooked in the temple of Jagannath. The last five days of Kartick constitute the Panchak, and it is very striking that the epidemic increased in intensity during this period.

Wherever rapid communication and a comfortable mode (as at Gaya, *not* Puri) of conveyance occur along pilgrim roads, cholera decreases and does not spread to the people generally. Whatever may be the case with other parts of India, there is abundant and conclusive evidence, so far as Puri is concerned, that cholera is invariably imported, and outbreaks of this disease in district villages can, without exception, be distinctly traced to pilgrims or travellers along pilgrim routes. So inseparably are cholera and pilgrimages connected, that to prevent the former the latter *must* be put a stop to, and so long as pilgrimages are tolerated or are considered so essential by the Indian native community from a religious point of view, so long will the death-rate from cholera remain high—and that, too, in spite of climatic or other conditions.

BRISTOWE says :—"The duration of the incubative stage of cholera is not certainly known. It probably varies generally between a few hours and three days." The Vienna delegates think it "did not last beyond a *few* days," and Dr. E. A. PARKES finds that it can certainly last for 10 or 12 days, and there are some cases on record where it lasted for more than 20 days ;" but Dr. MACNAMARA gives instances where incubation took place within 48 hours after exposure to the cholera infection. The writer however, had several cases where incubation was 48 hours, and declares he never came across a case in which there was a single fact pointing to a longer period than three days after importation of the disease, and in the majority of cases the period appears to be well under three days.

Wherever discipline with cleanliness and disinfection can be enforced as in the Puri Municipal and Government hospitals, the direct communication of the disease is rare, if not impossible, and the writer has seen but three instances, in two years, in which it was probable that the disease was communicated to healthy individuals directly :—(1). A father attended his sick son in the Puri cholera hospital, the son recovered ; but the father took ill and died. (2). A sweeper engaged in cremating cholera corpses was attacked with the disease and died. (3). To avoid handling the dejecta 382 Municipal latrine sweepers used long-handled cocoanut-shell ladles to scrape up the night soil. They were also careful to wash their hands and bodies before partaking of food. One of their number, a girl who assisted her mother in cleaning latrines during a cholera epidemic, contracted the disease and died. On the other hand, not one of the officials or many underlings in any of the different hospitals in which cholera cases were treated showed any symptoms of the disease.

It may also be safely assumed that the disease is not at all communicable through the atmosphere, or if so, to a very inappreciable extent. Five instances are recorded of air-borne cholera, but as most of the cases cited happened 50 years ago, when less was known about the disease and its contagious properties ; or how the contagion spread, they must be accepted with a certain amount of caution.

Fear of contracting the disease may give rise to symptoms of a choleraic nature. While visiting the Puri Cholera Hospital at a time when it was full of patients, the acting Chaplain of Cuttack—a fresh arrival in India—clearly showed, by standing with his back to the building and his face seawards, that he did not feel quite at home. That evening he had diarrhœa and vomiting that lasted the whole night and part of next day, after which no other symptom manifested itself. The air of cholera hospitals or sheds may even smell to an unbearable extent without giving rise to cholera among attendants on the sick, who not only live in but also sleep in them.

Whether meteorology exerts any direct influence on the spread of cholera or not is difficult to definitely say, but it is worthy of note that although a greater number of persons died in 1893 than in 1894, still the death-rate was vastly less since a much greater number of pilgrims assembled in 1893 than in the latter year. This fortunate result was attributed to the abundance of the rainfall in 1893, tending to check the dissemination of the disease and to cut short the duration of epidemic outbreaks. The disease prevailed chiefly during periods of scanty rainfall accompanied by a high temperature of the atmosphere.

In 1894, however, the rainfall seems to have had a precisely opposite effect, and the temperature of the atmosphere did not seem to enter, to any appreciable degree,

into the causation of the two epidemics which occurred in 1894.

	Rainfall		Cholera deaths.	
	1893.	1894.		
January ...	2·18	0·15	...	...
February ...	3 09	Nil.	4	5
March ...	1·05	Nil.	...	10
April ...	0 07	0·72	1	2
May ...	21·68	Nil.	1	1
June ...	2 38	4·93	1	0
Total for half year	30·45	5·80	18	19
July ...	3·56	12·10	174	124
August ...	4·12	5·11	?	?
September ...	18·62	0·61	8	Nil.
October ...	6 82	13·82	?	1
November ...	0 20	...	...	9
December ...	Nil.	Nil.	...	1

In February and March 1894, cholera appeared to follow dark, gloomy and cloudy weather, but no case of the disease was reported between 5th April and 29th May, although the temperature continued unusually high. Again there was no cholera in June, the early part of which was composed of dust-storms, sultry or dark gloomy weather, and passing showers, but towards the end of the month there was thunder, lightning and heavy rain, forcing up the subsoil water level and flooding the tanks, road-side ditches (that answer for drains) and pools.

On 3rd July 1894 came the first batch of Rathjattra pilgrims, and with them seven cases of cholera, which began its epidemic rôle, which it kept going strongly till the 1st August, when with a decrease in the rainfall the disease began to abate and altogether ceased by the 13th August, although these thirteen days were much hotter than July.

On the 6th October, which ushered in the second epidemic lasting to 28th November, the pilgrims were again on the march to Puri, and 3·88 inches of rain (of the 13 32 inches rainfall for the entire month) fell on that day alone The death-roll began to abate on 16th November, which was six days after the cessation of the rains, and from 16th to 28th November there were only 9 cases of cholera, while from the 28th November, when the town and district of Puri were practically pilgrimless and there were no more fresh arrivals of devotees, there was no more cholera.

From due consideration of all these points, it is reasonable to suppose that temperature could not have played as important a part in the causation of the epidemic as that provoked by the rainfall, and it becomes evident that whatever part meteorological conditions play in causing or otherwise influencing cholera epidemics, pilgrimages in themselves are mainly responsible for the *greatest* share of exciting causes, and it is more than probable that cholera and pilgrimages are *intimately* and inseparably associated with each other.

Whether the comma bacillus is the essential agent in the production of cholera or whether it is one of the minor conditions evoked by that disease are vexed questions over which the scientific world is still wrangling, but no matter what may ultimately be found to be beyond question *the* specific cause, it cannot be denied that cases do occasionally crop up in which it would be indeed difficult to believe that any specific virus could have been the prime causative agent; and the whole of the 1,419 cases that occurred in Puri and its direct neighbourhood in 1893 and 1894, go to show the intimate connection with unwholesome food consumed by the patient.

During long marches, specially in wet weather, pilgrims subsist on parched rice (*choora* or *moori*), raw vegetables (*cucumbers* largely), unripe or over-ripe fruits and sweetmeats of every conceivable variety, containing a liberal admixture of fat, decomposed *ghee* or adulterated oil. Other cases show a period of starvation followed by gormandising bad food bought at the lowest possible price and proving fatal, accompanied with symptoms between which and those of true cholera, whose diagnostic feature is KOCH'S bacillus, the line of demarcation would indeed be a very fine one.

Though in the absence of a bacteriological examination it could not be positively asserted that the comma bacillus did *not* cause such cases, still the circumstances under which they occur are so strikingly peculiar and mysterious that one might positively affirm that this organism could *not* have caused them. These cases relegated to the category of ptomaine poisoning are almost as deadly as cholera, used in its main meaning, although, perhaps, not equally if at all contagious.

The fact also that the great majority of the cases occur in the night or *very* early in the morning induces to the belief so strong rooted in the Indian mind, whether lay or medical, that food receives a prominent and water a very undignified position in the etiology of this disease.

Village tanks, without exception, are so foul that where well water can be had for drinking purposes the tanks are reserved for bathing and washing clothes; but as in many villages in the Puri district there are no wells, the tanks supply the water for drinking and cooking, and it is a singular fact that not only are such villages most severely attacked, but also that ever since they had an existence cholera has seldom or never been absent from them: same also in every other place in India, where *tanks* afford the only water supply; but, as a rule, *not* where *well*-water is provided for and used by the people, and those members of such communities who show a preference for tank-water, whether for drinking and cooking or for the cleansing of their teeth and tongue are the chief sufferers during village epidemics of cholera, since the idea of germs of disease clinging to their teeth, tongue or palate or of being taken direct into their stomach, is foreign to their nature.

Pilgrims, as a rule, are absolutely indifferent as to the nature of the water they drink; and when hot and thirsty, rush for the nearest supply they can find, whether in a tank, pool, well, ditch, or buffalo-wallow.

Many eminent bacteriologists dispute on scientific grounds: (1) That all the distinct forms of comma bacilli are mere varieties of one species. (2) Cholera occurs without the presence of comma bacilli of any kind. (3) If cholera can be caused by organisms growing in the intestinal tract, these have yet to be found. (4) Comma bacilli are the consequence and not the cause of the disease, but grant that even if the consequence, they may give rise to products that may become absorbed when the active condition of the intestine is re-established and thereby affect the ultimate course of the disease.

The epidemic, if not the whole, of the Puri cases coming under the probability of having been caused by pyrogenic pathogenic belong to the class in which bacteriologists maintain there is no evidence of the presence of comma bacilli, and it is clear that a district such as Puri affords a wide field for exhaustive bacteriological investigation during severe and extensive outbreaks, and in all cases which occur in sporadic form at what may be regarded as seasons unfavorable to the growth of the germs; but the investigator must not be handicapped, as was the writer of this thesis with a multiplicity of other important duties, and want of suitable equipment.

Though neither pilgrims nor natives of any district defaecate directly into tanks or wells, they have the highly objectionable habit of defaecating in close proximity or on the margins and sides of tanks and ditches or of entering the water for ablution purposes *immediately* after the act of defaecation has been performed. The roadsides of pilgrim routes are literally converted into continuous latrines, and during the rains the very nature of the roads affords the greatest possible facility to both solid and liquid excreta, among which are cholera dejecta, being washed into the ditches, the contents of which pilgrims drink with as much relish as the purest water.

It is a striking fact that the disease can be checked in a remarkable degree in those towns where ditch water cannot be had for drinking purposes, or where tanks and wells are protected against pollution.

But it is still more striking that prevention of well or tank pollution by wholesale destruction of soiled clothing, and prompt disinfection of the first affected houses has nipped cholera in the bud.

Whatever the etiology of cholera in other districts of Bengal, in Puri at least it is due to neither more nor less than the introduction of fresh choleraic discharges coupled perhaps with the excessive amount of ordinary human and animal refuse and mineral matters that directly enter or are washed into the water contained in tanks, pools, wells and ditches, and that the intensity of cholera epidemics depends on the quantity of water contained in them and the degree of concentration of such refuse since it can *not* be denied that cholera discharges are contagious.

Although no specific has as yet been discovered, and almost every remedy that has been recommended has been tried in the hospitals and found of no avail *in the treatment of cholera*, still in its earlier stages the disease is amenable to treatment, and the success which has attended astringents to begin with, and the avoidance of opium in the more advanced stages of the disease, coupled with the extra exhibition in proper time of stimulants and nourishment in suitable quantity and quality, warrant us in discarding eliminative treatment.

The general conclusions derived from the foregoing observations are :—(1) Pilgrimages and human intercommunication generally are most powerful factors in the dissemination of cholera, which (2) is inseparably connected with pilgrimages and confines itself for most part to pilgrim routes. (3). That water is undoubtedly the chief vehicle through which the germs of this disease are introduced into the human system. (4). That cholera, if at all communicable through the atmosphere, can only be so communicated to an almost inappreciable extent. (5). That when attendants on the sick are attacked, the unfortunate occurrence must be ascribed to negligence with regard to cleanliness and disinfection of the hands before partaking of food. (6). That the dissemination of the disease can be prevented by suitable precautions. (7). That in the majority, if not all, of the cases the period of incubation is well under three days from the actual time of ingesting the virus. (8). That quarantine during pilgrimages is impracticable and dangerous; but that isolation is one of the most important preventive measures. (9). In its incipient stage cholera is amenable to treatment in most instances.

INDIGENOUS DRUGS OF INDIA: TAJKARNATI OR CINCHONA EXCELSA.

By R. P. Banerji, B.A., C.E.M.S.L.

Salt Works, Pachbadra, Rajputana.

The *Hymenodictyon Excelsum* (Wallich), or *Cinchona Excelsa* (Roxb), which belongs to the Rubiaceæ is a native of the mountainous districts of the Madras Presidency, where, under the name of *Taj Kernati*, it flourishes as a large and very umbrageous tree with a straight, thick trunk with numerous spreading branches and covered with thick suberous, deeply excoriated pale brown bark, whose inside is reddish brown but whitens with age. The leaves which depend their smooth or slightly downy surfaces from interpetiolar stipules, are oblong, petiollated opposite, stipulate and sometimes verticillate. The flowers appear copiously during the rains as fragrant bractiate terminal panicles of a pale green color. The polysepalous (5), epigynous toothed calyx carries an epigynous, five-petalled gamopetalous funnel-shaped corolla with a pubescent surface and long tube, from whence spring five epipetalous stamens with short thick filaments and extrose erect jointed anthers. The *single* pistil with its long exerted style and clubbed stigma surmounts an oval ovary, situated in a kind of receptacle.

The fruit, which ripen late in the winter months, occur as dry, oblong capsules opening at the top to which the dried calyx adheres. The imbricated compressed seeds, which are found in multiples of *three*, are slightly winged and the embryo is erect and albuminous.

The wood, which is hard and close-grained, takes a beautiful polish. All parts of the tree are fairly rich in tannin and impart a persistent bitter taste to water, when infused in it, but the bitterness is not so intense as that of cinchona bark.

The dried bark of the young tree is officinal; but great care must be taken in the drying, since damp readily mildews the inner surface and deteriorates its therapeutic effect.

Native medical practitioners claim it has powerful antibilious, tonic and febrifuge properties, whether alone or in combination with other drugs, and the large demand for it by hundreds of Indians, who are averse to European medicines, has led to its being adulterated with, or fraudulently substituted by, cassia bark, surinjan taj, faded cinnamon bark, &c.

I have not been able to give the bark a very extensive trial; but in the few cases I treated with it, I found that its decoction was well borne by persons, who could not tolerate quinine or cinchona, and that it gave excellent results as a bitter tonic for weak or debilitated persons and in habitual constipation, while it was unsurpassed as an antibilious remedy and febrifuge.

As a bracing tonic I prefer giving from ℥ij to ℥iv thrice daily (children ½ doses) of a compound decoction made by mixing :—Powdered Hymenodictyon bark, dried Bael pulp, Ptychotis Ajwain, aa ℥iv., Ginger and Coriander seeds, freed from husk, aa ℥j and Liquorice root ℥vilj. with 4 quarts of water and boiling till the water loses half its bulk, when it should be strained, allowed to cool and bottled off for use.

Under its use the (1) skin acts freely, (2) functional disorders of the womb were fairly amended, (3) chronic fever and bronchitis were particularly benefitted, (4) and so also habitual constipation and biliousness (5) while during convalescence its bracing effects were particularly well marked.

A MIRROR OF PRACTICE.

NOTES ON GUNSHOT WOUNDS.*

BY SURGEON-CAPTAIN J. M. CRAWFORD, I. M. S.

Base Hospital, Nowshera, North-West Frontier of India.

SIXTY-TWO cases of the gunshot wounds received in the attack on the Malakand on 26th, July 1897, and in the operations immediately following it were transferred to the Base Hospital for native troops at Nowshera for treatment. Nowshera is forty-eight miles from the Malakand, the journey being covered in four marches, the intervening camps being Hoti-Mardan, Jalala, and Dargai, at each of which a section of a field hospital with an I. M. S. officer was stationed, the sick being transferred from the front in ambulance tongas and dhoolies.

Five of the British infantry barracks at Nowshera, each to accommodate 75 men have been set apart for the base hospital for native troops, additional accommodation for the milder cases being provided in "European privates" tents, each of which accommodates 8 sepoys.

On the date of writing (21st, October 1897), 4 out of the 62 cases have died; 10 are still remaining under treatment in the Base Hospital, all of which, with 1 exception, are convalescent; 7 have been sent back to their respective corps at the front; 9 have been sent to their regimental depots for duty, not being considered fit for the extra hard strain of field service; and 32 have been sent on sick leave to their homes. These latter consisted largely of cases having some stiffness in the muscles or joints, the result of being laid up in splints, and which merely required slight passive movements and time to complete their cure.

The first cases were received in the base hospital on 16th, August and more were sent down from the front from time to time, as the condition of their wounds and the amount of available transport admitted. The main characteristics of the wounds were those which would have been caused by non-explosive projectiles, namely, there was not a very marked difference between entrance and exit wounds, very little splintering or shattering of the bones, and an absence of injury to the soft tissues and unimportant structures in the immediate vicinity of the track of the bullet, all of which point to a non-explosive projectile and a comparatively low velocity.

The general good health of the wounded, the absence of tetanus and septicæmia, and the small mortality, all point to the care with which antiseptic treatment at the front had been carried out, as well as to the good hygienic surroundings of the wounded in the base hospital. Of the 4 fatal cases, 1 died of fever (probably malarial), 2 from hectic fever and 1 from gangrene, the result of injuries in the region of the axillary artery.

Appended is a tabular statement giving a rough classification of the injuries treated, together with brief notes on four of the more interesting cases :—

Nature of Gunshot Injuries.	Remaining in Hospital at Base on 21st October 1897.	Discharged to Duty.	Discharged to Depot.	Sent on Sick Leave.	Died.	Total.
Flesh wounds of head and neck..	..	1	..	1	..	2
Flesh wounds of trunk ..	..	..	1	4	1	6
Flesh wounds of upper extremity	..	4	2	3	..	9
Flesh wounds of lower extremity	3	3	3	9†	1	17
Penetrating wound of chest ..	..	..	3	2	..	5
Penetrating wound of abdomen.	..	..	..	..	..	..
Compound fracture of humerus..	..	..	..	1‡	..	1
Compound fracture of radius or ulna, or both	..	..	..	1	..	1
Compound fracture of bones of hand or wrist	1	..	..	6	..	7
Compound fracture of femur ..	3	..	..	2*	..	5
Compound fracture of tibia or fibula, or both	4†§	..	..	..	1*	5
Compound fracture of foot ..	..	..	..	..	..	..
Compound fracture of heel ..	..	..	..	..	..	..
Compound fracture of face ..	..	..	..	2	..	2
Compound fracture of trunk ..	..	..	..	1	1	2
Total ..	10	7	9	32	4	62

* Implication of knee-joint in one case.
† Implicable of ankle-joint in one case.
‡ Implication of shoulder-joint in one case.
§ Secondary amputation.

1. Sepoy U. B., 31st Punjab Infantry, aged 30. Service seven years. Wounded at Malakand on 30th, July and admitted here on 17th August. This man was wounded by two bullets: (1) the bullet entered the inner side of the right thigh, 3 inches above the internal condyle of the femur, and came out at the inner and back surface of the knee, it then re-entered the calf of the leg, and passing between the tibia and fibula, had its exit close to the ankle on the outer side of the leg. The man was kneeling on his right knee when hit. (2) The other bullet, after grazing the inner condyle of the right elbow, entered the body 4 inches above the posterior superior spine of the right ilium and travelling under the skin, came out 3 inches posterior to the wound of entrance. Both wounds were simple flesh wounds. He was discharged from hospital, and sent on four months' sick leave on 11th, October as there was some stiffness of the leg remaining.

2. Sepoy B., 31st Punjab Infantry, aged 29. Service ten years. Wounded at Malakand on 28th July and admitted to Base Hospital, Nowshera, on 13th August. The bullet entered the right arm just below the coracoid process, and passed out close to the axillary border of the scapula, causing a comminuted fracture of the head and neck of the humerus. A large fragment of necrosed bone was removed on 21st August. The fracture united with comparatively free movement of the shoulder joint He was discharged and sent on six months' sick leave on 12th October.

3. Sepoy M. S., 45th Sikhs, age 20. Service two years. Wounded at Malakand on 27th July, and admitted to the Base Hospital, Nowshera, on 13th August. The bullet, after passing through his water-bottle, entered his right

*Reproduced from the *British Medical Journal* by request.

[illegible] below the iliac crest and 1 inch in front of the [illegible] superior spine drilling a circular hole through the bone and entering the pelvis. There were no abdominal symptoms. An exploratory incision was made, but the bullet could not be found. The man never complained of pain which would give any indication as to the site where the bullet had lodged. There was much hectic fever with profuse suppuration, and he died on 23rd September. Unfortunately, owing to caste prejudices, no post mortem examination could be made.

4. Sowar S. S., 11th Bengal Lancers. Service, nine years. Wounded on 17th July, between Chakdara and Kuar, and admitted to the Base Hospital at Nowshera, on 23rd August. He was wounded while in the saddle. The bullet, after drilling a round hole in the butt of his carbine entered at a point midway between the great trochanter and tuber ischii, on the right side, and passed out 2 inches from the centre of the middle line of the perineum. He made a good recovery, and was discharged on 2nd September, and sent on two months' sick leave.

The above four cases are of considerable interest for the following reasons :—

1. In that it shows, first, how necessary it is to place the man in the position in which he was when struck to get a good idea of the course of the bullet ; and secondly it shows how a bullet sometimes travels in the closest proximity to important bones, vessels and nerves without causing any lesion of these structures.

No. 2 is a good example of the excellent results that can be got from antiseptic surgery at the front.

No. 3 is also interesting in that there were no abdominal symptoms ; this was accounted for by the fact that the bullet probably lodged in the iliacus muscle or thereabouts, and never really penetrated the abdominal cavity.

In No. 4, when the Sowar was hit, he was galloping to the relief of Chakdara, and had it not been for the bullet passing through the stock of his carbine, which must have decreased its velocity very considerably, he would probably have been severely injured, as the bullet would have passed into his left thigh also ; as it was it passed between his right thigh and the saddle.

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THREE CASES OF ACUTE INTESTINAL OBSTRUCTION.

By Wm. Hunily, M.A., M.D., B.SC.
Nusseerabad.

Case I.—Chhotu, age 35, strongly built muscular man, was suddenly taken ill on a Wednesday afternoon at 4 o'clock.

His first idea of anything being wrong came to him in the form of a sudden seizure of pain. This was confined to one spot in the neighbourhood of the ilio-cœcal valve. The pain was agonizing, and any pressure of the hand over the spot served to intensify it.

He did not think it anything more than colic, and in the evening sent for my native assistant. Colic was diagnosed and a purgative (castor oil) administered. In a short time this was vomited and some tea, which he drank, was also returned. Early on Thursday morning I was sent for, and the patient, who had had some time to study the increase in his symptoms, gave a good account of his case. The pain was very intense, and on palpation there was a sausage-like tumour along half the length of the ascending colon ; this was known to the patient, who called it a gânth. There had been two or three attacks of vomiting, but finding that everything taken only aggravated the vomiting, the patient had refrained from further attempts at swallowing.

He had passed no urine since the attack of pain, and no motion or flatus had passed by the bowel.

The patient too was aware that tympanites was present and the tongue was dry and furred.

There was no doubt of the case being one of acute obstruction.

I gave him a full dose of chlorodyne, commanded absolute rest, and had two stones placed under the two lower limbs of the charpoy on which he lay.

The presumption was invagination. All food was forbidden, save a little cold beef tea and some *dál páne*, and drinks of water were to be partaken of sparingly. Considering that the rains had not burst, the above conditions seem hard as thirst (great) was one of his symptoms.

In the evening he was a little better, and on the following morning was distinctly easier. He had taken, in addition to the chlorodyne, three 1 grain pills of opium. These were given *in accordance with the increase or decrease of the pain*. When the pain was markedly lessened, the treatment was purely expectant, watching the course of Nature.

For three days the patient remained quietly in bed, there was no further aggravation of the symptoms, and relief came on the fourth day in the manner in which these cases generally recover. Care in his diet was enjoined and no relapse took place.

Case II.—This patient was also a well developed man, of known temperate habits. He was well known to me and was subject to bilious attacks often followed by slight jaundice.

In the rains he came to hospital to show me a round prominent swelling on the right side under the ribs, in shape globular and to pressure resilient. There was little difficulty in diagnosing the tumour as the gall-bladder, and ordering the patient olive oil, I kept him under observation. The tumour was about the size of an orange and was smooth to the feel and moveable slightly from side to side. There was *no pain* complained of. The diagnosis was obstruction of the cystic duct in all likelihood by a gall stone. Several mornings later I was hurriedly summoned to find my patient in a collapsed state, his friends standing round expecting him to expire.

He had risen up to go to stool in the morning and walking along he suddenly experienced an excruciating pain, as if something had broken inside and he had rapidly become collapsed.

Mental query while gazing at the man—What has happened ? The globular tumour had disappeared, but already some typanitis was showing itself. The presumptive diagnosis was rupture of the tumour into the peritoneum.

The patient survived the peritonitis which followed,

but there was rapidly developed abdominal ascites, which so alarmed the patient that he presented me to tap.

After this collapse there was three days of intestinal obstruction during which I was entreated for purgatives, but I need hardly say this request was refused.

Under treatment the ascites also disappeared, and eight months later, the patient is strong and well with no sign of the tumour and with no jaundice.

Where is the gall-stone which obstructed the duct? No trace was found in the stools.

How much was the duct ruptured? There is no area of dense inflammatory formation which is the common sequel.

The patient for several months complained of pain in the neighbourhood of the sigmoid flexure. Is the stone buried in an adhesion there?

The patient has thus escaped collapse from rupture, peritonitis, intestinal obstruction, and ascites, and at present is as well, if not better, than he was before this critical attack.

He belongs to the sweeper caste, which is supposed to be one in which there is little temperance in food or drink. The man I knew to be of temperate and active habits and doubtless this helped to tide over the crisis.

Apart from the opium used during the intestinal obstruction period, ammon. chlorid., taraxaci, and potass. iodid. were the chief medicines employed.

There is an additional point in the case to be noted; namely, the appearance of the tumour *without pain*.

When there is this rapid and painless dilatation, the explanation is well expressed by RUTHERFORD MORRISON. "Like the urinary bladder, the gall bladder will become contracted and hypertrophied when dealing with a partial obstruction, and like it will dilate painlessly when all its efforts to overcome the obstruction are futile."

When my patient presented himself I advised early operation, but *because of the absence of pain*, the patient wished to wait a few days to see if relief would of itself occur and so obviate the need for operation.

CASE III.—Intestinal obstruction of 12 days duration.

This was a woman, a widow about 30 years of age. She would give no history.

There was obstruction with tympanites, but with little abdominal tension.

Later on a history of abortion was given, but as the woman herself had been a party to bringing it about, no correct account was possible. The temperature rose to 101° and occasional vomiting occurred in the course of the disease. Serious symptoms were easily controlled by opium, and after the 12th day primary and secondary relief of the bowels took place.

Remarks.—I have included these three cases under the term "Intestinal Obstruction" for the very simple reason that this to the patients concerned was the most serious element in their case, and that for which they prayed for active treatment.

As I have written in the *Record* on this subject before, I prefer to quote the words of Professor WHITLA on the question of the use of opium in this affection. Compared to what I have read elsewhere, it shows a much better appreciation of the value of the judicious use of this drug in obstruction.

"Opium is of the greatest service, and is to be given in proportion to the amount of pain present. There is, however, one serious objection to it, but which nevertheless cannot be permitted to forbid its use—*i. e.*, it tends to mask the symptoms and may mislead. The experienced physician will constantly have to make allowance for this, and have it ever before his mind in weighing the serious issues as the case advances. The opium should be given as the case may indicate. Thus, in violent sudden pain, soon followed by vomiting, the hypodermic injection of ¼ grain of morphia, or an enema containing 45 minims of laudanum should be given. As a rule, solid opium, or the powdered preparation made into pills, should not be administered owing to the retardation of absorption."

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SPINAL PARALYSIS DUE TO DEEP SEA DIVING.

BY ASSISTANT SURGEON G. R. GAUDOIN, M.D.,

Civil Surgeon, Mergui.

I DON'T think it is generally known that deep diving often produces spinal paralysis. In the Mergui Archipelago, pearl fishing is carried on and is attended with this danger in greater depths than 20 fathoms. Of course this diving is carried on with the aid of diving apparatus. My first patient was a Manilla diver. He stated that a few minutes after coming to the surface he lost partial use of his lower extremities. A few days later, on admission into hospital, I noticed he was able to draw up the lower limbs, although with some effort; sensation was not impaired; he had a large open bed-sore, and his left buttock was hard, swollen and exquisitely painful. He also suffered from retention of urine and loss of control over the rectum. The water was daily drawn off and the bowels relieved by warm water enemeta till control was re-established. About 8 oz. of thin offensive smelling pus was drawn off the gluteal abscess by means of a trocar and canula and the discharge continued for about ten days later. After this I got him to walk, his gait was peculiar, his feet were thrown forward and brought down with a thump, there was no loss of co-ordination, and he could not walk without the aid of a stick. I passed a phial of hot water down his spine and he cried out with pain when the point of irritation was reached. The irritation was from the symptoms, due to hæmorrhage within the cord. The second case was a Japanese. He sought admission sometime after he was paralysed. In him there was impaired sensation. He could not correctly locate pain, that is a pin prick on the dorsum of his foot would be located in the plantar surface, while a light prick would not be felt at all. His gait was spastic, and he swayed if he attempted to walk with closed eyes. He also required the aid of a stick. I was able to locate the point of injury in him also by passing down the spine a phial of hot water. He informed me that early in the attack he daily drew off his urine, and his friends opened the gluteal abscess with a pocket knife; the scar of the opening was present. In a third and slight case there was pain along the costal nerves; and difficulty in taking a deep breath. From these symptoms the paralysis were evidently due to hæmorrhage within the cord and the variations in the symp-

tome due to the extent and locality of the bleeding. A pearler of some experience informed me that he had seen divers come up apparently well, become paralysed a few minutes later, the paralysis increase and the man die within a few hours. He also said the administration of stimulants invariably made the sufferer worse. He attributed the causes to diving beyond a certain depth, to remaining too long under water, and to coming up too rapidly, and these were points that experienced divers avoided. Paralytic divers returned to their work before being completely cured, and it is strange they are able to walk better at the bottom of the sea than on land. The treatment adopted was the administration of ergot in the early stages; later strychnine, massage and electricity.

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FEARFUL MUTILATION OF LOWER LEG. AMPUTATION: RECOVERY.

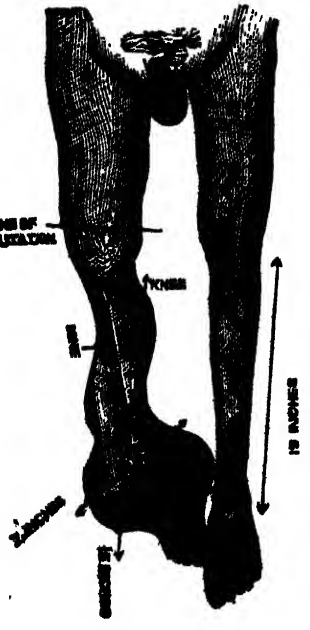
By John V. James, D.G.M.C.
Assistant Civil Surgeon, Mussoorie.

A Pahari lad, age about 10 years, was brought to hospital by his grandfather from a village about 3 days' march from Tehri, which is itself 7 days' march from Mussoorie. The old man stated that about a year ago, the boy fell from a tree and broke his leg, and when picked up was found with one bone sticking out through a wound. Some bandages or rather pieces of dirty cloth were applied and the boy was carried home. Nothing further was done. The hill village from which the boy comes has snow on the ground throughout the greater part of the year and accounts for the partial preservation of the limb from decay and gangrene.

On examination the broken tibia was seen protruding through a foul wound, the bone was dry and crumbling and serrated. The foot was swollen to an awful size being 7 inches across the middle and in appearance reminded one of the head of a cobra, the toes appearing like the mouth and two wounds like the eyes.

The leg from the knee to the ankle was curved and shortened to 15 inches, while the sound leg was 19 inches.

The crumbling bone was dry but had no offensive smell, but the three wounds were very foul smelling. The skin was œdematous, as far as the knee-joint, which itself was much swollen.



The boy had lost flesh to a very great extent and was very anæmic. The temperature was normal.

The boy was admitted as an in-patient and prepared for an operation.

The next day (26th March 1898) the patient being put under chloroform by Mr. Hukum Singh, my Hospital Assistant, I examined the limb and decided to amputate the leg above the knee, as no good flaps could be had below it. The bone was sawed through about 3 inches above the knee, the anterior flap being 1½ inches and the posterior 3½ inches.

The main arteries were ligatured and an Esmarche bandage was removed; the stump was then washed with carbolic first and perchloride after; silver wire sutures were applied and a drainage tube inserted. Mercuric gauze was applied in pads and covered with similar lint. Boric wool finished the antiseptic coverings and a long bandage fixed the dressing. The boy felt slightly sick on recovering from the anæsthesia, but soon got over it.

There was not much rise of temperature, the stump was dressed again after the 5th day, when the tube (drainage) was removed.

There was no rise of temperature for another 3 days, and the leg was redressed on the 8th day, when the flaps were found well united.

The patient is still in hospital and is doing very well.

It is strange how these ignorant hill men do neglect themselves and their children.

It is a wonder that gangrene or anything else did not occur.

It would be cruel to prosecute the grandfather as the patient being an orphan would suffer thereby.

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NOTES ON A CASE OF OLEANDER POISONING.

By Assistant Surgeon H. D. Pant, L.M.S.,
Gonda.

The roots, leaves and barks of nerium odorum, locally called "kaner," belonging to the order apocyraid are intensely poisonous. A case of some interest was brought to me yesterday morning. A Mussulman coachman was advised by some quack to take a sherbet of the leaves of kaner as a diuretic for gonorrhœa from which he had been suffering. Early in the morning he pounded seven leaves of oleander mixed with water and sugarcandy and drank off the sherbet. Uncontrollable vomiting set in. Two hours afterwards he was brought to me. The symptoms were violent retching, vomiting of small quantities of greenish fluid, slight pain in stomach. His pulse was extremely slow and feeble, counting only 36 per minute, cold clammy sweats on face and forehead. The stomach was at once washed out and bismuth and morphia given and a mustard plaster over the stomach. Nausea stopped within two hours, but the slowness of pulse continued till the afternoon, when it was 50 per minute. He was discharged cured this morning with pulse rate 70 per minute. As regards pulse, its action was analogous to digitalis. Oleander is not used internally. Could not a mild tincture be prepared and used as a substitute for digitalis in cases where the lowering of heart's action is indicated? The rapidity of action and its sustained character were remarkable in this instance.

THE

Indian Medical Record.

1st May 1898.

THE ADMINISTRATION REPORT OF THE COMMISSIONERS OF CALCUTTA FOR 1896-1897.

THE LATE HEALTH OFFICER'S WORK.

To us the most interesting part of the Administration Report of the Commissioners of Calcutta for 1896-97 is the Health Officer's Report: and more particularly that part of his report which deals with the subject of plague.

From a perusal of this Report, the conclusion is forced upon us, that if there was one man in India more than another who realised to its full extent the threatening danger, the absolute necessity of keeping the plague at a distance, and the precautions that were necessary for the successful attainment of this object, that man was the late Health Officer of Calcutta, Dr. W. J. SIMPSON.

But let the facts speak for themselves.

On the 24th September 1896, he addressed a letter to the Chairman of the Corporation of Calcutta, stating that plague was reported in Bombay and recommending that steps be at once taken to prevent its importation into Calcutta; he pointed out the intimate nature of the communications between Calcutta and Bombay, recommended the examination of all passengers before leaving Bombay and at different stages of the journey as well as at Howrah; urged that the railway authorities should be asked what special precautions they were taking to prevent the spread of the disease by their passengers, work people and goods, that the attention of the Port authorities should be drawn to the necessity of making special arrangements for the examination of all ships, etc

He further requested the Corporation to take certain precautionary measures, including the appointment of medical inspectors, the formation of isolation hospitals, securing of ambulances, the declaring of plague to be a dangerous infectious disease under Section 321 of the Municipal Act, the granting of power to the Health Officer to isolate suspicious cases, the appointing of a European superintendent to supervise the cleansing of the city, the appointment of a Health Officer for Howrah, etc

Now on this very date, on which we see Dr. SIMPSON putting the Calcutta Corporation on its guard at every point, what was the state of affairs in Bombay.

On the 24th September 1896, the Health Officer of Bombay, in reply to a question as to whether bubonic plague was in Bombay, wired as follows.—"*There has been suspicious form of fever with enlarged glands in one locality, and one class for about three weeks; the mortality is small, it looks suspicious, but by no means certain.*"

It is easy enough to be wise after the event, and we now know only too well the appalling results which may be traced, more or less directly, to the extreme unwillingness of the Bombay authorities to admit that plague had made its way into their city, for three weeks these suspicious cases had been occurring, for three weeks a frightful epidemic was quietly incubating in their midst, [illegible] yet they were not certain of the nature of the disease. The awakening was a rude one, and for their blindness they have had a heavy penalty to pay.

The next day, 25th September, Dr. SIMPSON despatched Dr. DUTT to Bombay to inquire into this suspicious disease the true nature of which was already clear to him.

At this time there was absolutely nothing to prevent one of these cases arriving in Calcutta at any time, and should one arrive, there was equally no place in which to isolate it.

Dr. SIMPSON saw this and wrote two letters with the object of obtaining the necessary accommodation. One was to the superintendent of the Campbell Hospital, Sealdah, but as nothing in this country can be done without the sanction of the Government, the other was to the Secretary, Government of Bengal, Medical Department, Darjeeling, enquiring "whether in the event of suspicious cases of fever with glandular enlargement or distinct cases of bubonic plague occurring in Calcutta," such cases might be admitted to the isolation wards of the Campbell Hospital

And now we come to an interesting episode which may open the eyes of some to the advantages of Government from the snowy Himalayas

The date of the reply, a letter, is four days later, 30th September, it presumably did not reach Calcutta till six days later or the 2nd October, during any of which days the cases referred to might have been introduced into the city

The reply to the above inquiry is as follows, quite a little miniature of *red tape* —"I am to say, with reference to a query *irregularly addressed by the Health Officer to Government direct*, that the Campbell Hospital cannot be used for the purposes of a plague hospital." The divinity which hedges a Government must not be set aside, no matter what the urgency, by such a person as a Health Officer. Plague is quite a secondary affair, but the sanctity of the correct channel for official correspondence must be kept inviolate

In this letter it is mentioned that a "telegram of to-day's date from His Excellency the Governor (of Bombay) shows that the character of the disease is still open to question.'

The last paragraph runs —"It is premature at present to propose any interference with, or medical examination of, railway passengers."

During this time, according to Dr. DUTT's reports from Bombay, there were on 29th September 18 cases and 13 deaths, on the 30th September 26 cases and 24 deaths and on 1st October 21 cases and 15 deaths; all from the mysterious disease which the Bombay authorities were so loath to admit was plague.

We cannot discover the exact date upon which they admitted, if indeed they ever did admit officially, that there was plague in Bombay. On the 1st October, the Bombay Governor wired:—"If disease is plague, then of mild modified type, and no tendency to increase at present."

On the 2nd October he wired:—"Situation in Bombay no worse. Municipal Commissioner states if disease increases, necessary measures will follow."

What a terrible lesson does this last sentence convey to-day? Following undoubtedly diligently following they still are! But they were outdistanced, the quarry had got away, and we now see the line of chase marked with over 80,000 corpses.

That the "following" policy was not the one adopted by Dr. SIMPSON is clear from the Report before us. On the 22nd of September he announced, "plague appears to have broken out in Bombay," and published a brief discription of the symptoms as well as directions to house holders for the prevention of plague.

In his letters, dated 3rd October, he advised the Chairman of the Calcutta Corporation as to the "Special Powers required under Section 334, Municipal Act," and further wrote this memorable sentence :—"*I may, moreover, mention that epidemiologists are quite prepared to see a recrudescence of the plague such as has not been in this century.*"

In a letter, dated 4th October, he presents the Chairman with a complete scheme for a plague hospital.

It was not, however, until the 8th October that the Commissioners of Calcutta notified "bubonic plague, or any form of typhus fever with glandular swellings to be a dangerous disease under Section 321 of the Calcutta Municipal Act." This action was thus only taken after the lapse of 13 days from the date of Dr. SIMPSON'S first letter.

We consider Dr. SIMPSON'S proceedings throughout this trying time to be an admirable and complete lesson to all Health Officers under similar circumstances.

It is pretty certain that the exact amount of risk which Calcutta ran of plague importation in those days will never be known ; it is even an open question if cases of plague did not actually occur within municipal limits, both in human beings and in rats.

In the Report before us, there is the detailed account of a case which occurred at Howrah, in an individual who had recently arrived from Bombay.

There is also an interesting and highly suggestive account of an outbreak of glandular sickness with great mortality among rats, in two houses in the Marwari quarter, in one of those houses a child also was ill with fever and glandular swellings, and it is a remarkable thing that diplo-bacteria assembling the specific organisms of plague were found both in the child and in the rats. By energetic measures this epidemic amongst the rats was stamped out.

With reference to the Howrah case, after careful examination Dr. SIMPSON, Dr. TOMES, and Dr. COBB, all agreed that it was a case of plague (Pestis Ambulans), "The Medical Board, investigating the case later on, came to the conclusion that there was no evidence to consider this a case of true bubonic plague.

In this state of uncertainty the case must remain ; it was carefully investigated by men of undoubted ability, and they were unable to agree as to the diagnosis. We are unable to throw any further light upon it, but we cannot forget that there was a similar doubt about the first cases in Bombay, and that they were described as being of a mild and modified type.

Whatever the true nature of this case may have been, of this thing at least there cannot be the least room for doubt, that the attitude of Dr. SIMPSON, and those who agreed with him, was the right one ; far better, at such a time, to diagnose fifty doubtful things as plague, than let one pass on the plea that the diagnosis was not positively certain. It was Dr. SIMPSON'S duty to protect Calcutta, and his action was the only one possible for him under the circumstances.

At this time the Government of Bengal was oppressed by two great fears : the fear of plague, and the fear of panic, and it is not altogether clear that it did not permit the latter to exercise a preponderating influence in its councils.

The action of the Bombay Government in delaying to acknowledge that the city was infected by plague may have been dictated by somewhat similar motives, we all know now what it has led to.

Calcutta may well congratulate itself that it had a Health Officer who was equal to the emergency, to whom the methods of concealment and delay, of doubting and waiting were not acceptable, and to whose energetic measures may in a large measure be attributed the safety of the city.

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TYPHOID FEVER AND INFECTED WATER SUPPLIES : THE MAIDSTONE EPIDEMIC.

To trace an outbreak of any infectious disease to its starting point, and demonstrate with certainty its exact cause is a task beset with difficulties, and it must be confessed that the results of investigations of this kind are far from satisfactory.

The ease and certainty with which any single expert will unravel all the intricacies of a difficult case, are only equalled by the bewildering differences of opinion that arise when two or more experts are assembled for the same purpose.

On many very important points sanitation is still in the empirical stage, and divergent views prevail about what appear to be very simple matters , the worst of it is that as our means and methods of research become more perfect, these difficulties and differences seem to increase, this is of course only the natural result of the widening of the field of inquiry.

As a good example of the futility of building up clumsy theories, and of the facility with which they can be constructed to suit any possible combination of circumstances, we would refer the reader to an article called "Mixed Factors in Infection" which appeared in the *British Medical Journal* of 12th March ; this stout supporter of the waterborne theory of every disease, finds itself in difficulties and is obliged to "hedge" and very mixed and amusing is the result.

The comfortable arm-chair doctrine that typhoid fever is essentially a waterborne disease has been for many years accepted with almost blind acquiescence, and it has become a regular routine on the occurrence of a case, to send the water to be analysed, true the results were usually nil, but of course that proved nothing, and in India at least the source of the large majority of cases has never been traced.

Of late there has been a healthy tendancy to take a wider view of the matter, and it is becoming more evident day by day that where typhoid fever is concerned, many things besides water and milk have to be considered.

Regarding the recent epidemic at Maidstone (Kent), we read in the Annual Report of the Sanitary Commissioner with the Government of India for 1896 page 22: "Just as when tubercle bacilli gaining access to a blood vessel are carried to all parts supplied with blood, and produce general tuberculosis, so was the enteric bacillus distributed by the water pipes at Maidstone."

Leaving out of sight the very questionable proceeding, unfortunately only too much favored by many writers of the present day who call themselves scientific, of arguing from one bacillus of which we know little to another of which we know less, the above summary of the Maidstone epidemic is altogether without support from direct evidence of any kind, it is therefore to be regretted that it should have appeared in such an important Government Report.

Judging from recent developements, the late Maidstone typhoid fever epidemic is likely to provide food for controversy for some time to come.

The *Public Health Engineer* deserves the thanks of all for its energy in taking this matter up and in specially retaining Professor WANKLYN, M.R.C.S., to investigate the causes of the Maidstone epidemic, and by so doing it has thrown a bomb into the camp of those who have expressed themselves in favor of its water borne origin.

Professor WANKLYN, whose report appeared in the *Public Health Engineer* for 5th March, and whose position we need scarcely remark, is second to none as a water analyst, gives it as his opinion, without the slightest hesitation, that the water had nothing whatever to do with the causation of this epidemic. The fact that the typhoid bacillus was never found in the water is admitted on all sides, and regarding the failure to find it Professor WANKLYN remarks: "This utter failure is rendered especially emphatic by the extraordinary opportunities and facilities for that description of investigation which were afforded by the Maidstone Water Company. On the 5th of September, the sanitary authority first became aware that an outbreak of typhoid fever was imminent, and on that day Dr. WASHBOURN was communicated with, and from that time onwards during the whole course of the epidemic, the works of the Water Company have been at the disposal of the sanitary authority for any kind of investigation which that authority might choose to undertake."

"Under these circumstances, the only construction which this cardinal fact will bear is, that the Maidstone water has in reality been devoid of typhoid bacilli throughout the epidemic."

This is of course the obvious conclusion, indeed it is difficult to see how any other conclusion can be drawn; but from the statements made on the subject, one of which we have given above, it would appear that the very fact of the typhoid bacillus not being found is to be accepted as proof that it was present.

On what evidence then is the water-supply accused of having caused the epidemic, according to Dr WASHBOURN "the Tutsham-in-Field spring was undoubtedly contaminated with animal excreta on both occasions on which it was examined; it contained an excess of bacteria and many coli bacilli."

On the other hand, Professor WANKLYN says:—"Dr. WASHBOURN'S further statement that the Tutsham-in-Field spring was undoubtedly contaminated with animal excreta is totally at variance with ascertained facts. It is in direct opposition to the observations of Dr. RUS MOORHEAD, and it is contradicted by the chemical analysis of Mr. GREGORY and Dr. ADAMS. The striking absence of any considerable proportion of free ammonia shows conclusively that there was no sewage pollution."

Thus do the experts differ about simple matters. Professor WANKLYN is inclined to attribute the outbreak to the excessive rains of the latter half of August and the beginning of September, waking up to sinister activity the 4,000 elongated cesspools charged with foul, festering filth, continually producing air-polluting and disease-provoking vapours. The elongated cesspools referred to are of course the town's sewers, and if we had forgotten the fact, that, at the discussion on the "Prevention of enteric fever" held in January last, at the Royal Medical and Chirurgical Society, both Professor CORFIELD and Dr. PAYNE expressed their belief in sewer gas as a cause of enteric, we should be now reminded that this old theory is by no means dead.

With reference to the alleged pollution of the Tutsham-in-Field spring, it is a curious thing that the cottagers who lived in its immediate vicinity and who drank this supposed polluted water at its source entirely escaped infection.

That the sewers were in some way closely connected with this outbreak is the conclusion arrived at by the *Public Health Engineer's* Special Commissioner who stated in that journal in October last that "the people who live in the London Road and drain into the main sewer, have nearly all had the epidemic in their houses, while those who have drained into water-tight cesspits have, in the majority of cases, escaped.

The result of a series of interesting experiments upon the effects of sewer gas in animals was to show that it lowered the vitality and rendered animals exposed to its influence more prone to contract infectious diseases, from the above it would appear that the conditions that prevailed at Maidstone simply amounted to a collateral series of experiments on human beings, the results of which were sufficiently similar.

However that may have been, the end to which all these investigations were directed has not been reached, and the most important question of all, where the bacillus actually came from, is wrapped in as great obscurity as ever; this result we say is unsatisfactory, the more so as the Maidstone outbreak was more extensively and carefully investigated than any of other epidemic with which we are acquainted.

The result, no doubt, will be that in all future outbreaks of a similar kind, the inquiries will be of a more rigorous description than heretofore, and that in such investigations the water companies, or the authorities who are responsible for the purity of the water supply, will take their part and by all means in their power endeavour to prove that their supplies were uncontaminated.

As showing how a polluted water supply may exist coincidentally with a high typhoid fever mortality and yet be unconnected with it, Dr. GRUBER'S paper on the "History of typhoid fever in Munich" (*Lancet* Feb. 5) which

[illegible] length in our issue of 16th March, is extremely instructive.

We notice that this communication of Dr. Child has been extensively quoted by the *Münchener Medicinische Wochenschrift*, and in the opening sentence our German friends seem to be poking mild fun at their English confrères when they say "People in England are so accustomed to search for the cause of typhoid fever only in water and milk, that Dr. Child's paper, read before the Epidemiological Society of London, created considerable surprise."

CLIMATIC BUBOS.

Inflammatory swelling of the lymph glands, without any apparent cause, is a sufficiently common complaint in Calcutta.

Various views as to the origin and cause of these bubos have appeared in the medical journals, so that the following translation of a paper on "Climatic Bubos," by Dr. O. Nagel, which appeared in the *Münchener Medicinische Wochenschrift* for 9th March 1896, cannot fail to be of interest to many :—

"The question is not yet decided if in tropical countries there is such a thing as a climatic inflammation of the inguinal glands, that is, an inflammation which, after the exclusion of all other etiological causes, must be attributed to the effects of climatic influence alone.

"While the answer to this question, be it in the affirmative or negative, is not of very great importance from the therapeutical stand-point, it possesses a certain etiological interest; it cannot therefore be amiss to communicate the observations that have been made on this subject, which, in the literature of tropical diseases, has received but scant notice.

"This question has been amply dealt with by Ruge who, on the strength of a considerable amount of material (38 cases), adduces proof of the existence of climatic bubos.

"Ruge's observations were made on the East Coast of Africa, and two off Zanzibar during the blocade of the coast by the German squadron.

"The fact that all his cases occurred on boardship, does not affect the correctness of his observations, because, as he says, the ship was as often close into the land as at sea, and the men were subject to exactly the same climatic influences as if they had been on shore.

"During the year 1891-1892, I had an opportunity of making observations on this subject in different parts of German East Africa, not only on the coast but also in the interior, at first I received with distrust the oft-repeated assertions of Europeans living in the country that they were suffering from climatic bubos; the relatively large number of cases of inflammation of the inguinal glands which came under my treatment, induced me, however, to pay special attention to the subject.

"The result of my observations led me to conclude that climate was very probably, if not certainly, the cause of the affection.

"It may be that the influence of the climates consists in some unknown cause of disease or inflammation which gains an entrance into the body and then gives rise to these changes; but as to the time or manner of the infection nothing can be said at present.

"The designation of 'climatic bubo' can, of course, be only provisional, until a term expressing the exact nature of the inflammation can be found.

"It is, of course, necessary to exclude, in the cases under consideration, all those affections which under ordinary circumstances give rise to inflammation of the inguinal glands; the different forms of venereal disease, especially gonorrhœa and soft chancre, also wounds of the lower extremities and other forms of infection, particularly tuberculosis, in which this condition may occur.

"Venereal diseases were not easily excluded, but certainly in my cases there was no recent infection, nor was there any sign of previous infection, nor did any affection of the genital organs come under my observation.

"There remains then the possibility of a causal connection with malaria.

"It is well known that malarial fevers of all kinds from the lightest to the most severe, prevail on the East Coast of Africa, pernicious cases and the various complications have been described with sufficient frequency.

"There is no difficulty in imagining that a disease which prevails in so many forms, and affects so many different organs, might also localise itself in the lymph glands, and it must be borne in mind that the inflammation of the inguinal glands in question is often found in an individual who is at the same time suffering from malarial fever.

'We can therefore clearly understand an observer tracing an internal connection between the two diseases as Martin did. Martin draws attention to a particular form of inflammation of the lymph glands—(moreover he only mentions an inflammatory swelling of the external iliac and crural glands, the inguinal were not affected)—as subject to malarial influence and which subsides quickly under quinine.

"On the other hand, Ruge, after carefully excluding all other exciting causes, as venereal infection, agrees with me in rejecting malaria as the cause of the inflammation of the lymph glands.

"The reasons given by him are, that the fever which accompanies the glandular inflammation resists quinine, but disappears when the affected glands are removed; and that inflammation of the inguinal glands complicated none of the cases of malarial fever observed by him.

"In my cases, the same reasons led me to the conclusion that the inflammation of the inguinal glands was due exclusively to the climate, which, as above mentioned, gave rise to some unknown agent which produced the inflammation, although in two of my cases malarial fever was present at the same time.

"The details of the cases, their number is roughly one-third of those given by Ruge, resemble in all particulars those mentioned by him as his milder cases, in none did the fever exceed 102.2°F., and in only two did suppuration occur, necessitating incision of the glands; the swelling generally developed quickly with rather more than less pain. In one of the cases severe pain on pressure in the bend of the groin persisted for almost a week before any swelling could be detected.

"The treatment was the ordinary one, of rest in bed, inunction with mercurial ointment, fomentations, and

pressure by means of a bandage; with the exception of the two cases in which pus formed, this led to speedy resolution.

"*Quinine was given in all cases, but had not the smallest effect upon the process.*

"The fever and other unpleasant symptoms usually present disappeared with the local affection.

"If the inflammation of the lymph glands was a localised form of malaria, it presumably would to a certain extent follow the course of the malarial fever in those cases where the two were associated; it would certainly be influenced by quinine, as this is undoubtedly the case in all the usual symptoms which accompany the manifestations of malaria.

"But even as a complication of malaria, in the sense in which a complication is understood by SCHELLONY, the inflammation of the inguinal glands cannot be accepted.

"SCHELLONY defines malarial complications as distinct affections, which are accustomed to appear so often in the wake of malaria that a distinct etiological connection must be assumed, without our being able to state distinctly to what cause the connection is due.

"Amongst such complications he includes malarial pneumonia and dysentery. MARTIN also considers dysentery to be a complication of malaria, on account of the frequency with which they occur together.

"With STENDEL, I hold that in such cases the connection is purely accidental, and that the diseases referred to must be considered separately, and this also is the case with the inflammation of the inguinal glands.

"Even if no direct proof can be given for either of these views (whether a malarial complication or arising from purely climatic causes), yet in favor of the latter is to be urged the perfectly independent course of the disease, which is influenced neither by the malarial fever nor by quinine.

"The fact that inflammation of the inguinal glands is sometimes coincident with malarial fever is easily explained, in that the tropical climate produces the climatic bubo through certain different influences, in a body, already attacked and weakened by malarial fever.

"On the other hand, it is clear that the climatic disease of the lymph glands can be primary, and so facilitate the entrance of the malarial organisms into the body.

"I have still to mention that in the total number of cases of malarial fever (about 300) which during the years 1891—1892 were under my treatment, with the exception of the cases above mentioned, I met with no cases in which inflammation of the inguinal glands occurred at the same time as malarial fever.

"I regret that I cannot adduce any observations on the blood, a method which gives more accurate results, to show whether malaria is the exciting cause of inflammation of the lymph glands or not. So that the result of this communication can only be to establish the probability of the existence of climatic bubos.

"Considering the small number of communications on the subject, every contribution must be welcomed, until the matter is set at rest by means of exact observations."

THE LIFE AND TIMES OF THOMAS WAKLEY, FOUNDER OF THE *LANCET*.

In considering WAKLEY'S Parliamentary career, it will not be necessary in these pages to do more than briefly notice the various matters of interest to the medical profession with which his name is connected.

An important result of WAKLEY'S long and unceasing exposure of the anomalies of medical education, of the "dull, feeble exclusiveness of the Royal College of Physicians of London," the "tyranny and ineptitude of the Royal College of Surgeons," the "pettifogging malice of the Society of Apothecaries," was the appointment on the 11th February 1834 of a Parliamentary Committee of Inquiry (called Warburton's Committee) to take evidence on a large number of diverse subjects, connected with almost every aspect of the profession of medicine.

The proceedings of this Committee did much to enlighten the "House" and the public on medical matters, but led to no immediate legislation.

On the 8th March 1836, WAKLEY introduced the "Medical Witnesses Bill;" it provided for the payment of all medical witnesses at coroner's inquests, of one guinea for their evidence, and one guinea for post mortem examinations. This Bill became law in about three months, and met with no opposition.

In 1840, when Sir JAMES GRAHAM'S Vaccination Bill came on, WAKLEY introduced two important amendments, in the first, he vindicated the right of ordinary practitioners to become vaccinators under the Act, Poor-law medical officers only being recognised as the Bill stood.

In the second it was made a penal offence to inoculate with small-pox, or to expose persons intentionally to infection.

About this time he supported a measure to prevent the burying of the dead in the over-crowded churchyards of the cities, protesting against a system by which the dead poisoned the living.

He also spoke on the subject of infanticide and illegitimacy, which were noticed to be considerably on the increase.

In 1841 WAKLEY was re-elected for Finsbury for the third time; he was now one of the best known men in London. It was in this year that *Punch* was started, and it must be looked upon as a tribute to WAKLEY'S importance that the great London Comic Journal satirised him in its opening number.

For an aggressive man, which he undoubtedly was, WAKLEY'S demeanour in the "House" was singularly ingratiating; he always kept his temper in perfect control, and in the only fracas with which he was associated in Parliament he was the justly offended party.

Mr. EDMOND WODEHOUSE, a Norfolk member, in the heat of debate, once again resuscitated the old scandal of Argyll Street, the burning of WAKLEY'S house. WAKLEY at once called the attention of the House to the matter and received a full apology.

This incident furnished Sir ROBERT PEEL with an opportunity for the performance of a very graceful act. He addressed a long and eloquent letter to the eldest of

WAKLEY's son, then twenty-three years of age, testifying to the complete esteem in which his father was held by the whole House; this, coming from the most powerful and prominent statesman in the kingdom, formed a remarkable testimonial to WAKLEY's public merits.

In 1846 WAKLEY obtained leave to bring in a Bill for the Registration of Qualified Medical Practitioners and for amending the Law relating to the Practice of Medicine in Great Britain and Ireland. This was his greatest Parliamentary work; it never became law, but it led directly to the very important Medical Act of 1858.

A select committee, on which WAKLEY had a seat was appointed to inquire into medical matters generally and he enjoyed the pleasure, not often accorded to agitators, of cross-examining his old enemies, the Presidents of the London Corporations. This was a complete triumph for WAKLEY.

Twenty-one years previously he had formulated certain complaints against the College of Surgeons, and was expelled from hospitals and reviled, sixteen years before he was violently assaulted in the theatre of the College, now it was his duty to call upon the heads of this body for an account of their stewardship, and to cross-examine them as to the management or mis-management of their affairs.

In 1852 WAKLEY's Parliamentary career came to an end, the terribly laborious life he had led as coroner for Middlesex, as regular attendant at Westminster and as Editor of the *Lancet*, was telling seriously on his health. For fifteen years he had worked relentlessly. He had spoken and written volumes, he had driven literally thousands of miles to hold courts. A serious collapse decided his course of action, and in a brief letter he took farewell of his constituents, thanking them for their loyal support during eighteen years of political life.

WAKLEY's career in Parliament was an unmitigated success. He never attached himself to any party. He was a most adaptable and obliging member in small things, and in large followed a clear and well-defined policy of the Radical sort.

He was interested in, supported, and spoke upon a very large number of subjects of reform, and always with success.

A very outspoken appreciation of WAKLEY in the House of Commons, from the pen of Mr. G. H. FRANCIS, appeared in "*Fraser's Magazine*," and was afterwards published with similar essays in a volume entitled "Orators of the age."

SOME FACTS ABOUT THE ORIGIN OF MALARIA.

BATTEN denies that the poison of malaria enters the system wholly by way of the stomach, and in support of the theory that an entrance may also be effected through the respiratory tract he mentions his experience on the vessel *Valley City* during 1864-65. The ship was cruising along the coast of North Carolina, and although all the water used on board, either for drinking or cooking purposes, was boiled and filtered, yet the number of cases of malaria invariably increased whenever a long stay was made in any river.

COMMENTS AND NEWS.

MEDICAL JOURNALISM.

THE late Mr. ERNEST HART, with whose name the great success of the *British Medical Journal* is closely associated, and which he so ably edited for many years of a busy life, may be accepted as a competent guide on all questions concerning medical journalism.

The following remarks of his, lately reproduced by the *Philadelphia Medical Journal*, will have a special interest, coming as they do so soon after his removal from our midst:—

"The mission of the medical journalist is a great one, it is no longer an accidental function of an otherwise busy man's life. Even the ablest men who have taken that view of journalism have failed to make much mark in that calling. I refer to men of such capacity and standing as JENNER, QUAIN, SPENCER WELLS, BARNES, and JONATHAN HUTCHINSON—all of our later time. It offers a career that repays and requires undivided devotion; one that may fulfil high ambitions and subserve large usefulness. I speak of it as a mission; for no man can reach the ideal of medical journalism who only writes to live; he must live to write."

"The ideal journalist needs to cultivate many qualities which it is not always easy to combine. He should have rapidity of initiative and promptness of decision, for slow deliberation is the grave of opportunity. He needs quick and catholic sympathy; for this is a great source of power: but a corresponding capacity for just indignation is its necessary correlative and qualification. Magnanimity is a necessary editorial quality, for often the best way to remedy injuries is to forget them. Journalism entails much sacrifice. An editor needs, and must have, many enemies; he cannot do without them. Woe be unto the journalist of whom all men say good things. A man, says OLIVER WENDELL HOLMES, whose opinions are never attacked is beneath contempt. For every real thought on every real subject knocks the wind out of somebody.

"An editor must quickly form opinions, and firmly express them, but he does well not to enter into controversy. "For controversy," it has been well said by Dr. OLIVER WENDELL HOLMES, "equalizes fools and wise men in the same way—*and the fools know it.*" It is a prudent thing to refuse to be drawn into controversy, especially in the pages of one's own journal. Don't lose time in altercation, for in much altercation truth is lost. Let every man have his say, let him contradict you, let him attack, provided he does so in the limits of courtesy and of good temper. Learn from him, and let others learn. Do not answer him or put tags to his letter, unless some rectification of facts is necessary.

An editor is often asked by young writers. "What style would you recommend me to adopt? and what advice can you give me for writing in your journal. It has always seemed to me advisable to recommend the avoidance of style, and to advise those who seek counsel, to avoid straining after style, and to try and say what they have to say as clearly as possible, and to seek mainly the accurate expression of precisely the shade of meaning which it is intended to depict."

On medical ethics he remarked:—"Do unto others as you would have them do unto you, is the golden rule which is enclosed within the casket of general as of medical ethics. But society has found it necessary to formulate a vast number of accepted laws of conduct which are none the less necessary for daily use because they may all be found inscribed in the Ten Commandments.

They include applications of principles which every man might work out if his intellect were always keen, his judgment well balanced, his interest calmly self-judged and easily put aside when they conflict with the general interest. So perfect a being might be content to be a law unto himself; but for others less perfect it has been found in every walk of life that it is well to have at hand, stored in the memory or laid down for reference, decisions and rules already settled by the wisdom, the experience, and the judgment of the wisest and best of our predecessors and our contemporaries—that is, the code of medical ethics, and wise men will not despise it. A strict adherence to the rules of etiquette is sometimes, with shallow scorn, stigmatised as trades-unionism. We can be well content to leave that phrase as it stands, but let us translate it into its proper language. Medicine is not a trade; it is a profession And unions such as ours, such as yours, unions which are called the Association of Medical Journalists, or which are called the American Medical Association or the British Medical Association, typify and embody professional union We accept and convert to our own honor and dignity and to the welfare of the public, the very phrase which is hurled at us as if it were a reproach. Yes, we here are all for medical union. Our duty as medical journalists is to promote professional union."

THE GROWTH OF THE TYPHOID BACILLUS IN THE SOIL

DOCTOR JOHN ROBERTSON, Medical Officer of Health, Sheffield, has published some very suggestive experiments on this subject (*British Medical Journal*, 8th January 1898)

He noticed that the disease had a special tendency to occur in certain areas at varied intervals, these areas he calls "Typhoid Areas," to elucidate the question as to where the actual propagation of the disease-producing organism took place, he collected thirty samples of soil from the most "probable" of these areas.

In none of these samples was he able to find the bacillus typhosus. "Within the past few months," he says, "Professor DELEPINE has been able to demonstrate the presence of B. typhosus in the soil of an infected area"

Dr ROBERTSON next proceeded to try if he could grow the typhoid bacillus in the ordinary soil of the district.

The field where the out-door experiments were carried on had not been manured for over ten years, each experimental patch of ground had the turf removed, and nothing was allowed to grow on it

The method of procedure was to mix a twenty-four hours' old bouillon culture with 1½ gallons of tap water and drench the ground with it. One patch was inoculated in the surface, one at a depth of nine inches and one at a depth of 18 inches, the soil being carefully replaced.

This was done on the 30th May 1896, on 26th August following, samples were taken and the bacillus typhosus found in all with comparative ease.

On 20th October samples were again taken with similar results, but on 27th November the bacillus could not be found.

Towards the end of August 1896, three more patches were inoculated as before, and these patches received, at intervals of about a fortnight, until 3rd June 1897, doses of various dilute organic solutions, while none of the three patches first inoculated received any organic matter.

On 3rd June samples were taken from each of the six patches. In the first three no typhoid organism could be found, in the last three it was found in every case. The same results were arrived at on 11th July.

Dr. ROBERTSON thinks that the results obtained throw some light on the natural history of the bacillus typhosus "They prove," he says, "that the typhoid organism is capable of growing very rapidly in certain soils, and that apparently under certain conditions the organism can survive from one summer to another"

He draws attention to the fact that the organisms which survived were constantly fed with organic matter, and suggests that a leaking drain might easily fulfil the duty of feeding the bacillus if it were in the neighbouring soil.

The results, however, throw no light upon the difficulty experienced in finding the bacillus in the soil of the "typhoid areas," and as it was found with "comparative ease" in the inoculated soil, we are driven to the conclusion that it was not present in the thirty samples of soil taken from the most "probable" of these areas.

Investigators of the typhoid bacillus lay great stress upon the difficulty of finding and isolating this organism, and constantly remind us that the fact of their not being able to find it, in the face of these difficulties, means nothing. If such be the case, any conclusions drawn from their investigations are worthless; for on their own showing it is open, and even justifiable for anyone to assume that the bacillus was actually present in all the cases where they got negative results.

If on the other hand it can be found with "comparative ease' when it is really present, why do they so particularly emphasise the difficulty of isolating it, and ask us to assume its presence, though not actually demonstrated, whenever it suits their convenience or what they consider to be the probabilities of the case'

SANITARY SCIENCE, THE MEDICAL PROFESSION AND THE PUBLIC.

A VERY able address was given on the above by Dr. HERMANN M BIGGS of New York. He remarked that, "it may perhaps be justly said that no class or profession has contributed as much as the medical profession to the advance of civilisation, to the prosperity of nations, and to the preservation and prolongation of human life

Sanitary science aims to prevent disease. Formerly four-fifths of all deaths were due to preventible causes, in large cities one-third are still due to them.

DISRAELI once said in the House of Commons "The public health is the foundation on which reposes the happiness of the people, and the power of a country. The care of the public health is the first duty of a statesman"

The high standard of public health has, without doubt, largely contributed to place the British nation foremost in civilisation

After alluding to the deadening influence on business and the enormous loss attending an infectious epidemic in any large city, Dr. BIGGS said, with the numerous close and rapid lines of communication which now exist between all parts of the civilised world, the rapidity of extension of one of the mediæval epidemics would be frightful to contemplate, should sanitary conditions and lack of sanitary knowledge render such an epidemic possible

All the formidable array of preventible diseases have been confined by the energies of the sanitary authorities within much narrower boundaries The great plague of modern civilisation,—tuberculosis,—shows a steady and continuous decline in its death-rate, small-pox in former times with all its terrors before the discovery of vaccination, was scarcely more to be dreaded than tuberculosis is now, its death-rate was relatively smaller than that of tuberculosis to-day.

In the seventeenth and eighteenth centuries the average

annual death-rate per thousand, throughout the civilized world, probably varied from 30 to 60 in London. At the present time it is only about 17.

About three 30,000 people died in Paris during one epidemic of small-pox in the last century, and a third of the population of Iceland in another, 10 per cent. of the population of a city or country were often destroyed during one epidemic."

The most serious array of preventible disease with which we have to contend at present are those which are highly contagious, such as measles, scarlet fever, and whooping cough, and a group of infectious diseases partly communicable, such as diphtheria, typhoid fever, summer diarrhœa, pneumonia, and influenza.

In the control of whooping cough, measles, scarlet fever, there are exceptional difficulties to contend with; these difficulties arise in part from great crowding in tenement houses.

In Birmingham the death-rate from these diseases was reduced from 425 per 100,000 to 72; the decrease was attributed by Dr. HILL to compulsory notification and removal to hospital where necessary.

The past triumphs of preventive medicine have been achieved mainly through cleanliness.

For a long period the death-rate of the British Army in India was 69 per 1 000, as the result of a Royal Commission improvements were made in the housing, clothing, food, and occupation, and the death-rate has fallen to about 14 or 15 per 1,000.

SANITARY AUTHORITIES IN RELATION TO THE MEDICAL PROFESSION.

THE attitude of the Board of Health of New York City toward the medical profession has been in many respects more advanced than that of any other sanitary body in the world. The broad position has been taken that it is the function of the Health Department to furnish to physicians all such specific and general information and assistance in relation to the infectious diseases as can be afforded by thoroughly equipped bacteriological laboratories, in which the work is fully abreast of the most recent observations in scientific medicine. The sanitary authorities of New York, City were the first in the world to assume this position, and while their example has been widely followed in the great cities of this country and Great Britain, yet nowhere else has this position been frankly taken and consistently followed to the extent that it has been here. It has been the attempt of the Health Board to introduce new measures or to adapt existing measures to the new requirements of every additional observation with regard to any of the infectious diseases which had a practical bearing on prophylaxis or therapeutics. Two considerations, as I interpret the action of the department, have mainly influenced the Board in the adoption of this position: (1) The desire to extend as rapidly as possible the knowledge of the most recent discoveries in regard to the infectious diseases and the means for their restriction, prevention, and cure. (2) The desire to afford the general practitioner of medicine, without charge, such expert assistance and special information as may be useful to him in clinical work, which could not be otherwise obtained, excepting at greatly increased trouble and considerable expense.

The duties and responsibilities of the sanitary authorities with relation to the general public are numerous and comprehensive. To a very great extent the general welfare of the community is in their hands. Everything which is detrimental to health or dangerous to life, most broadly interpreted, is properly regarded as coming within their province. Sanitary authorities must protect the community from the individual, "the greatest good to the greatest number" furnishing the first rule of action.

A glance at the functions performed by sanitary authorities shows how broad is their scope: Primarily, sanitary science aims to insure to a community and to each individual an abundant and pure supply of air, light, water, and wholesome food. In the great aggregations of population found in our large cities the preservation of the purity of the air and insurance of an abundance of light and good ventilation involves most comprehensive measures relating to the character of the habitations—their cleanliness and the cleanliness of their surroundings, including the streets; the provision of efficient plumbing; good sewerage; sufficient air-space to the individual, that is, the prevention of overcrowding; protection against noxious vapors or odors arising from offensive trades, slaughter-houses, gas-houses, decomposing animal and vegetable matter and the purity of the atmosphere, so far as suspended solid particles are concerned.

The public, and even the medical profession, have not yet fully learned the lesson, though it seems almost automatic, that different diseases require to be controlled by different methods, and the more accurate and extensive our knowledge of the nature and causes of the different infectious diseases, the more unlike become the intelligent measures devised for their prevention.

THE PHYSIOLOGICAL ACTION OF CHLOROFORM.

SAYS the *Lancet*:—"There is no doubt that in spite of the vast amount of valuable work which has already been done to elucidate the mode in which chloroform affects the body, there are still many questions connected with its action which require further elucidation. Dr. KEEFE of Springfield, Massachusetts, published at the Berlin Congress, 1890, his criticisms upon the much-discussed theory of chloroform syncope. He has more recently issued a pamphlet in which he discusses some of the views recently advanced. Dr KEEFE contends that death in early anæsthesia, or as he prefers to call it 'before complete sopor,' is frequently caused by respiratory arrest, while in later stages of anæsthesia death arises from cardiac syncope. This view is opposed to the commonly accepted idea that cardiac syncope may occur quite early, while arrest of respiration usually results from accumulation of the drug in the blood. Death in ordinary anæsthesia results, he thinks, from the action of chloroform upon the nerve endings in the lungs and principally upon the medullary centres rather than upon any direct action on the circulatory or respiratory organs themselves or upon the muscular fibre contained in them. Dr. KEEFE has performed some experiments which lead him to believe that cardiac failure in the lower animals always occurs in the 'post-soporous period' The fact that Dr. KEEFE has not published details or photographic records of his tracings lessens the weight of these findings as against those of others who have arrived at contrary conclusions and have kept a careful record of their research. Indeed, it must be admitted that in the present stage of the controversy what is required is rather experimental work than *a priori* reasoning upon the conclusions of others. It is of great moment in all complex inquiries such as that which Dr. KEEFE has undertaken that not only the conclusions should be in our hands, but the full evidence upon which the conclusions are based. Dr. KEEFE's views are distinctly interesting and novel, and we shall welcome a fuller account of them, especially if accompanied with details of his experiments and reproductions from photographs of his respiratory and circulatory curves."

KASHMIR MEDICAL MISSION.

WE have received an admirable little Report of this mission, the work done by it in 1897, and of the general progress that has become so marked in Kashmir.

"The Mission Hospital," "we read, "forms one of the most important public buildings in Kashmir."

"Year by year it has increased in size to enable it to cope with the demands made upon its accommodation and resources by an ever growing multitude of patients. During the past year 36,483 visits from out-patients have been recorded, 1,365 have been taken into the wards of the hospital as in-patients and 44,324 meals have been supplied free. The large number of surgical operations, 3,576, shows how far the confidence of the people has been secured."

"Seven hundred and ninety-four eyes were operated upon for entropion and trichiasis. The total of eye operations comes to 1,196. Of these 88 were for cataract. We still adhere chiefly to the *Von Graefe* method of extraction, occasionally, however, omitting the iridectomy. Extraction of the lens in its capsule is sometimes done, chiefly in those cases in which the nucleus is small. Bone operations (167) always bulk largely in our list. More than one-third of these are for disease of the tibia, ostcitis, epiphysitis or varying kinds and degrees of necrosis."

"About 96 per cent. of our cataract operations were successful."

The State Leper Hospital has been making steady progress. In Kashmir there is no compulsory segregation of lepers. Those who come to the hospital do so voluntarily and stay just as long as they like.

The following table shows the gradual increase in the number of those admitted to the hospital :—

Year.	Total in-patients.	Average number of beds in constant occupation.	Deaths.
1891 ...	63	11	1
1892 ...	55	14	2
1893 ...	82	15	2
1894 ...	89	23	...
1895 ...	108	30	...
1896 ...	118	35	...
1897 ...	141	45	5

PROPOSED LONDON MIDDLE-CLASS HOSPITAL.

THE *British Medical Journal* says :—"We have received a circular letter from the 'Secretary, Middle-Class Hospital Committee, 44, Southampton Buildings, W.C.,' stating that a movement has been set on foot for the establishment in London of a hospital for middle class patients, able and willing to pay a moderate residential fee. The circular states that there is at present no alternative between paying from five to ten guineas a week for private accommodation, or 'having recourse to the common ward so repugnant to people of independent spirit.' The appeal now made 'to the wealthy and middle classes' is for charitable help to the extent of providing the initial funds for founding the institution which it is believed would be entirely self-supporting, if not even financially prosperous. Provisional guarantees and promises of support are invited. It is added that subscriptions have already been promised, and that several eminent physicians have expressed their fullest sympathy with the project, which, however, is yet only in the 'theoretical stage.' We readily respond to the request to bring the project to the notice of the medical profession, but the information before us is not sufficient to warrant any expression of opinion as to its merits. These will depend upon the nature of the regulations for admission, and about this vital matter nothing is said. The idea seems worthy, at any rate, of public discussion, if it is understood that admission to the hospital is to be limited to cases in which the emergency is grave, and the relative poverty of the patient adequately vouched for. But if these essential points are not secured, this proposed middle-class hospital would only add another to the sham charities with which London is infested."

MEDICAL MEN AND CHEMISTS.

WE learn from the *Medical Times and Hospital Gazette* that large posters are being placarded in some of the principal towns of Lancashire warning the public against quacks, in which this reference to chemists occurs : "Chemists are not allowed to prescribe for diseases, they are only licensed to sell drugs, &c." The above and the following note in the same paper show how some medical men regard chemists :—

"A medical men, who practises at a fashionable southern sea-side resort, writing on Christmas Eve, says :—"I have recently had two cases of periostitis treated by chemists, who called it influenza. They are clever men these chemists; just fancy standing behind a counter, not even touching the patient, and being able to tell all about his ailments. Röntgen is not in it. I suppose it is the background of gold-labelled bottles that gives such powerful light. 'Fools rush in where angels fear to tread.' We rarely see a chemist's legs, unless he comes round to us or descends to our level in order to examine a patient.' He is anxious to know if anything can be done to check the practices of these reckless diagnosticians. The most effectual means I am acquainted with of keeping chemists from going beyond their province is to hold them responsible for the consequences of their blunders. If through the ignorance or neglect of a chemist a person's illness be prolonged, or he suffer injury to eye or limb, the person so injured could claim a substantial sum as damages. Let a chemist be mulcted in, say, two or three hundred pounds for his blunders in prescribing, and he probably will afterwards confine his medical administrations to the members of his own household."

THE PRESCRIBING OF ALCOHOL.

WE give the following extracts from a pamphlet issued by the National Temperance Association, which convey a useful warning, and one which the wise physician will do well to bear in mind :—

"I do *not* expect that he shall look upon his patient simply as an organism, however complex and interesting, and confine his studies and endeavours to skilful handling of that organism or mechanism so as to retain it in, or restore it to, perfect working order.

I do *not* expect that he shall risk the upsetting, by careless prescription of alcohol, of a man's newly-acquired habits of self-control, nor yet the awakening of a dormant, perhaps unsuspected, inherited appetite for the drug. But I *do* expect that he shall, where possible, make himself acquainted with the personal, and even parental, antecedents of his patient; and I do entreat him, where that is, as it must often be, impossible, to keep on the safe side and keep off the administration of alcohol unless his science utterly fails him in finding another and efficient remedy."

"We would not trespass upon your professional judgment, or oppose our partial knowledge to your fuller culture. I, personally, ask only that, knowing the action of *alcohol*, its wonderful witchery, its ever-strengthening spell, its terrible power—as a source of disease, as a moral tempter, as

a destroyer of virtue, as a degrader and moral poisoner—you should avoid it to the utmost, and, even if you will not lay it entirely down, that you should jealously guard it from ignorant and unsuspicious hands."

SURGEON-COLONEL A CROMBIE, M.D.

A CORRESPONDENT writes:—"In your last issue you commented on the official life and work of Dr. CROMBIE. You practically summarised his term of Indian service as a failure. Now I do not think Dr. CROMBIE can be pronounced a failure. First of all, he held many excellent civil appointments. He rose to the rank of Brigade-Surgeon Lieutenant-Colonel. He made a pile of money as a general medical practitioner in Calcutta. Any one who sees the resemblance of "our dear departed" in the following sketch, will observe from its clear and distinctive outlines, that its subject was burdened with many cares, further that erudition and an emolient disposition are well delineated. I send these few lines and this sketch, as a simple but determined protest against your remarks on DR. CROMBIE."

We very humbly apologise to the subject of the sketch for our imperfect appreciation of its deep and hidden qualities of heart and soul. We generally speak of men as we find them. We prefer to call "a spade a spade," and after due and careful consideration of all we wrote of DR. CROMBIE, we do not feel disposed to alter our word picture of him, however much it may differ from the physiognomy of our correspondent's sketch. We say without hesitation, however, that the sketch in no way depicts DR. CROMBIE'S truly imposing figure and personage. He was a tall and handsome man, and in this opinion we think we may well expect the complete and cordial concurrence of his rotund confrére, who among his many sided proclivities as a general practitioner, lord high chancellor of midwives, secretary and electioneering obstructor, adds the very enviable qualification of senior showman of the India Club. We omitted to breathe the fervent hope that Surgeon-Colonel CROMBIE may live healthily and long to enjoy his handsome pension as a military officer in civil employ, especially for his service, "with the colors"! We emphasise that sentiment now.

STRAITS SETTLEMENTS BRANCH OF THE INDIAN MEDICAL ASSOCIATION.

THE usual monthly meeting of the Straits Settlements Branch of the Indian Medical Association was held on the 16th March at 8-30 P.M.

The members present were Messrs. A. B. LEICESTER, W. R. ANGUS, J. A. REARDON, H. J. GIBBS, W. A. ARRIA, R. A. HALE and C. J. BATEMAN.

Mr. J. V. PESTANA was unable to attend owing to his being on duty for the night.

The Honorary Secretary read the circular calling the meeting and the minutes of the previous meeting which were then confirmed.

Mr. ARRIA read his paper on the malpraxis of native midwives, for which he was accorded a vote of thanks by the members. Question papers on medicine and midwifery were next set to the members by Messrs. PESTANA and BATEMAN.

Owing to want of time, the papers on dislocations of the shoulder were not gone into, and it was resolved that they should be postponed to the next meeting. It was also resolved that there be an interchange of questions between Singapore and Penang, and that the members for Malacca be asked to contribute 50 cents a month towards defraying the cost of the *Lancet*.

It was decided that the following subjects should be discussed at the next meeting:—

Medicine.—Plague and Cholera.

Surgery.—Dislocations of shoulder.

Midwifery.—Normal labor, the puerperal state and its management.

A. B. LEICESTER, *Chairman.*
H. J. GIBBS, *Honorary Secretary.*

The Editor would be glad to have Dr. Arria send his paper for publication in the *Record*.

A CASE OF COMBINED INTRA AND EXTRA-UTERINE PREGNANCY AT TERM.

ROYSTER (*American Journal of Obstetrics*) reports that a negress, aged 34 years, was delivered by a midwife of a healthy male child. Forty-eight hours afterwards, inasmuch as the midwife felt in the abdomen another child which she was unable to deliver; she sent for a physician who, by introducing his hand into the uterus, made out that a living fœtus at term was outside of this organ. He advised operation which was refused. The fœtus lived more than a week, and then movements ceased. One week later, as the woman's temperature had begun to rise and death seemed imminent, she consented to operation. Celiotomy was performed and a female child, weighing four and one-half pounds, was successfully removed. The placenta with its membranes was attached to the anterior abdominal wall, and it would not have been necessary to open the peritoneal cavity in order to remove the whole. This was done, however, accidentally. The patient recovered. The history in this case reveals the fact that during the third month of pregnancy, while squatting down to pass urine, the patient had had a sharp pain in the right side which caused her to call for help. She fell, half-fainting, and was carried into the house and put to bed, but recovered within a few hours. There was no external loss of blood.

THE UGLY FAMILY.

WE regret that space does not permit us to do more than briefly notice a very able and interesting lecture given under the above title, by Mr. P. DURAISAWMY MUDALIAR, under the auspices of the Srivilleputur Reading and Lawn Tennis Club.

The ugly family referred to is the family of Narcotics, and Mr. MUDALIAR had some apt and weighty remarks to make upon the many evils they are responsible for. As he justly remarks, "it requires a sound discretion to learn the fundamental *principles* of hygienic rules." "Narcotics," he says, "are employed as medicines or administered with a view to induce sleep or alleviate pain, when in the hands of a skilful physician, a drug that can do this must be of value

but in the hands of others it may become a weapon of danger."

The narcotics treated of are alcohol, opium, tobacco, ganja, chloral hydrate and cocaine, and the evil results due to their use are clearly set forth.

The lecturer dwelt at considerable length on the progress of the Temperance cause in India, and eloquently urged its many advantages upon his hearers. We have much pleasure in wishing all success to the Temperance cause and such able advocates as Mr. MUDALIAR.

THE MEDICAL INSTITUTIONS OF THE TOWN OF MADRAS.

SAYS the *British Medical Journal* :—"These are fourteen in number, and include general and special hospitals for Europeans and natives. The special hospitals are for women and children, eye diseases, lepers, and venereal diseases; 17,605 in-patients and 186,249 out-patients were treated during the year, the death-rate among the former being 4·92 per cent The proportion of men, women, and children treated were 50, 33, and 17 per cent. The transactions of these hospitals, administrative and professional, are recorded in great detail by Surgeon-Major-General Sibthorpe and the medical officers in charge. The work done is evidently large in amount and excellent in quality. Brigade-Surgeon-Lieutenant-Colonel BRANFOOT'S report of the Maternity Hospital is, as usual, very able, exhaustive, and interesting. The year 1896 was a healthy one, and free from epidemic visitations. Nevertheless, the attendance of patients was not diminished, and medical, surgical, and obstetric relief sought without abatement Venereal diseases constituted 205 per cent. of the total treated. The voluntary general hospital is eagerly resorted to by diseased females, but they seldom come until disease is well advanced, and often leave before a cure is completed. The preventive value of the institution is, therefore, inconsiderable. These hospitals are worked at a cost of about 4½ lakhs of rupees, of which Government contributes over three-quarters.

QUARTERLY REPORT OF THE PENANG BRANCH OF THE INDIAN MEDICAL ASSOCIATION.

1. SEVEN meetings were held during the quarter ending 31st March 1898

2. The following members were present at most, if not at all, the meetings, *viz* —Messrs. J. F CARNEGY, J. W. W. HOGAN, F. RODRIGUES and M E. SCRIVEN.

3. Mr. NORRIS of Butterworth attended the meetings twice and Mr. C. T. DESOUZA of Balik Pulan once.

4. The subjects taken as for discussion during the quarter were —Fevers, puerperal fever, water, diseases of the brain, diseases and injuries of the shoulder and hip-joints.

5. The following resolutions were passed —

(*a*). That weekly meetings be held on Thursdays at 4-30 P.M. in order to discuss on certain diseases and injuries.

(*b*) That the Association should subscribe to the *Indian Medical Directory*, *The Practitioner* and *British Medical Journal*.

(*c*). That five days be allowed to each member for the perusal of a journal

6. Mr. J. F. CARNEGY exhibited a case of osteo-arthritis with dislocation of the shoulder joint, and a case of artificial anus of one month's duration in a subject of scrotal hernia, in which the gut was severed by an injury to the scrotum.

THE PRICE OF NATIONAL HEALTH.

SAYS the *British Medical Journal* :—"The subject for discussion at the monthly dinner of the "Argyle Club" on Wednesday, 2nd March, was 'The Price of National Health.' The subject was introduced by Mr. WILF DENTON, M.P., London, who pointed out that a statistical study of the subject showed that if the value of life were reckoned on Dr. FARR'S estimate, a total minimum loss of over £10,000,000 was incurred by the nation from deaths due to preventable disease, an amount which exceeded in value the whole spirit trade of the United Kingdom and was double the trade in copper. Dr. ROBERT SAUNDBY, in opening the debate on the address, pointed out that it was a mistake to suppose that the resistance of civilised was less than that of uncivilised nations. The latter lived on the verge of starvation, and when they were attacked by zymotic disease the mortality was usually enormous The evils of zymotic disease were far greater than would appear from consideration of the chairman's figures, for in addition to the immediate, there was a subsequent mortality accounted for by the power of such acute attacks to set up chronic organic disease."

UNRIGHTEOUS GOVERNMENT IN INDIA. THE C D. ACTS AND OPIUM.

THE recently issued Annual Report of the Canadian Baptist Telugu Missions contains the text of the Resolutions of their late Annual Conference, among which are the two following, unanimously adopted, on matters of supreme public importance —

I. This Conference would put itself on record as most emphatically opposed to all legislation that ignores the Seventh Commandment We believe that British soldiers should not be guarded from the results of sin by any such legislation, but that, on the contrary, they should be taught to abstain from impurity, and we urge that provision should be made to allow more of them the blessings of family life.

II This Conference views with deep sorrow the continuance of the terrible traffic in opium, carried on by the Government of India, in this land, and also in the Empire of China. While regarding the traffic as an abomination wherever engaged in, we cannot hide from ourselves the added hatefulness that comes from forcing such deadly doings on a neighbouring people in spite of the opposition and entreaties of their rulers. We pray GOD to awaken His people in Great Britain and India, in regard to this iniquity.

A GRAVE PUBLIC DANGER.

THE following letter appeared in the *Daily Telegraph* We quote it because it so exactly bears out a recent article which appeared in our columns :—

"TO THE EDITOR OF "THE DAILY TELEGRAPH"

SIR,—Having just escaped a serious accident, will you kindly allow me space in your columns to describe it for the good to the public?

Like nine-tenths of the younger women of the day I have been using xylonite (imitation tortoiseshell) combs to keep back my hair, quite unconscious of the risk I thereby ran. But a few days ago I was kneeling in front of an ordinary sitting-room fire and within five minutes the heat ignited my comb, which flared up, setting my hair on fire, only the prompt action of a brother, who threw a rug over me and stifled the flames, saving me from being severely burnt. We had some difficulty in disentangling the remnants of the comb, which burnt rapidly, destroying all the hair near it and also burning the skin itself.

Considering the extensive use of these combs by all classes and their very inflammable nature, surely legislative action should be invoked to restrict, or even prohibit entirely, their manufacture and sale.

Yours, &c., ONCE BURNT."

PLAGUE AND MEDICAL OFFICERS.

Referring to our contemporary *The Englishman*'s remarks with reference to our remarks concerning the policy of extra allowance of Rs. 400 a month, granted to Civil Surgeons on duty at plague segregation camps, it is to be noted that police officers get an additional Rs. 200 a month for this work, and it is to be remembered that this amount represents to them so much pure gain, while the medical officer, withdrawn from civil employ, loses all his other allowances and private earnings. We have already drawn attention to the fact that combatant and military medical officers, who do not sacrifice so much, get in return Rs. 800—or exactly double the honorarium paid to their civil *confrères*. It will be conceded that the work done at the plague examination stations is of a most important character; the least carelessness might result in the importation of the plague into Calcutta, with consequence to the inhabitants and the trade of the metropolis not pleasant to contemplate. Under these circumstances it is not too much to ask the Government to rectify a genuine grievance affecting men on whose shoulders rests a very heavy responsibility.

PROPOSED MEDICAL SERVICE FOR THE CROWN COLONIES.

THE Committee elected at a public meeting, held at the Imperial Institute on 2nd March 1898, to deal with the desirability of establishing a medical service in the Crown Colonies, met for the first time on 21st March. The Committee consist of Sir Joseph Fayrer, Bart. (Chairman), Sir Wm. des Voeux; Sir Guyer Hunter; Sir Dyce Duckworth, Surgeon-General Reade, C.B., Dr O Chadwick, C.M.G., Dr J. Anderson, C.I.E.; Dr V. Corbould; Dr. W. Felken; Mr. John Furley; Dr. H P. Hawkins: Dr. A. P. Hillier; Mr. A. Keith; Dr. H. M. Murray; Dr. H. W McLeod; Mr. T. H. Richards; Dr. W. J. Simpson; Mr. W. G. Spencer, Dr. G. Thin; Mr. J. G. Turner and Mr. J. Cantlie (Honorary Secretary). The Committee drew up the following resolution, to be forwarded to the Secretary of State for the Colonies:—"That it is desirable to organize the Colonial medical services on lines parallel to the other public medical services"

CONDEMNING THE CALCUTTA MUNICIPALITY AND SUPPORTING THE GOVERNMENT.

AT the last meeting of the Council of the Imperial Anglo-Indian Association, Letter No. $\frac{1889}{M}$, dated 25th March 1898, from the Secretary to the Government of Bengal, Municipal Department, forwarding copy of Bill to amend the Calcutta Municipality Consolidation Act of 1888, was read and considered.

After discussion the Council *Resolved* that in view of the past failures of the Calcutta Municipal Corporation, and in view of such failures being clearly attributable to the absence of a suitable European representation on that body, the Directors of the Anglo-Indian Association hereby record their hearty approval of the proposed Municipal Bill, and they further desire to express their thanks to the Bengal Government for the able and careful manner in which the Bill has been devised. A copy of this Resolution is to be forwarded to the Bengal Government.

DEATH OF A PROMINENT MAHOMEDAN DOCTOR.

THE *Phœnix*, of Karachi, says:—"Death has been rather busy amongst us owing to the recrudescence of the plague, and one of our greatest and best-known men has now gone to swell the roll of its victims. It is with extreme regret that we announce the death from plague of Dr. J. F. MIRZA, the Acting Turkish Consul for Karachi. Death was as sudden as it was unexpected, and it laid the victim low in a very few hours. The melancholy event took place on the night of Thursday last. In the death of Dr. MIRZA the Mahomedan community of Karachi have lost their most prominent leader, and the most self-devoted and enthusiastic worker in their cause. His place will be hard to fill. Peace to his wishes. We condole the bereaved family of the deceased from our heart of hearts."

UNREGISTERED MEDICAL PRACTITIONERS.

SAYS the *Chemist and Druggist*:—"In the Queen's Bench Divisional Court, on 31st March, Mr. MUIR MACKENZIE applied, on behalf of the General Medical Council, for an order calling upon the police magistrates of Westminster to show cause why the magistrates should not hear and determine a complaint made against WM. MAUNSELL COLLINS, under the 40th section of the Medical Act of 1858, for wilfully and falsely taking and using medical titles implying that he was registered under the Medical Act. The magistrates refused to issue a summons on the ground that there was no obligation upon a medical practitioner to be registered, and that the continued use of the title, after having been struck off the register, was no offence under the Act."

Their Lordships granted a rule *nisi*.

IMPORTANT NOTICE TO DEFAULTING SUBSCRIBERS.

OUR Manager regrets being compelled to notify BAD PAYS by a new method He is tired of old methods, as BAD PAYS thrive on secrecy. He notifies that subscribers to the *Record*, who have not paid their dues for over three years, will have their amounts notified to them through the *Record* in a regular list. He gives one full month's notice of this threat, which will be put into execution on the 1st May next.

The above notice has not been put into force with this issue of the *Record* as a large number of defaulting subscribers have paid their dues, while others have asked for a short period of grace. The Manager therefore desires to postpone publication of defaulters' list for one month

PAPAW AND PAPAIN.

THE *Produce World*, in recommending Indian and Ceylon planters to go ahead with the cultivation of the papaw-tree, says "the pepsine derived from this fruit is the foundation of most medicines for curing digestive derangements, and is now quoted at 5*s* per lb." We hope the planters will not be misled by this Papain is not pepsin, and is not largely used in Western medicine; but there is a big field for it in India where caste prejudice prohibits the use of animal products such as pepsin.

THE CLEANING OF SPECTACLES.

SPECTACLES and eyeglasses should be kept perfectly clean and clear, otherwise the eyes will be strained and injured. A well-known optician says glasses and spectacles should be placed in a wash-bowl and soaked in warm water. Then they should be washed with soap and rubbed with a soft nail brush. Polish them with tooth powder and give them a final rub with tissue paper A few drops of ammonia may be added to the water in which the glasses are soaked.

BENGALI LADY DOCTORS.

The attractiveness of the medical profession for Bengali ladies may be gathered from the fact that among the forty-six students who passed the recent final or diploma examination from the Campbell Medical School, there are no fewer than seven native ladies: Miss Hemangini Mazumdar, Srimati Kiran Sashi Devi, Mrs. Bidyulatta Mallick, Srimati Nirmala Sundar Dasi, Miss Probodh Bala Pal and Miss Hari Das Mullick. The Dacca Medical College furnished only one successful female student, Miss Kadambini Banerji; the Cuttack Medical School two, Mrs. Anderson and Miss S Ruth Saranghy; and the Temple Medical School, Patna, the same number, Mrs. M. S. Sudrumba and Janki Bai.

THE BENGAL PLAGUE COMMISSION.

Mr. E. R. Gardiner, Under-Secretary to the Government of Bengal, in the Public Works Department, is appointed to be Secretary to the Plague Commission, Bengal, *vice* Mr. W. Banks Gwyther, on furlough. The Lieutenant-Governor is pleased to appoint the following gentlemen to be members of the Plague Commission, Bengal :—Surgeon-Major R. H. Charles, *vice* Surgeon-Lieutenant-Colonel J. Lewtas ; Surgeon-Captain H. W. Pilgrim, *vice* Surgeon-Major A. W. D. Leahy ; Surgeon-Lieutenant-Colonel R. D. Murray, *vice* Brigade-Surgeon-Lieutenant-Colonel J. O'Brien.

SHORT ITEMS.

The will of Mr. Ernest Hart has been proved, and shows personal estate of the gross value of £15,966, and of the net value of £13,114. The executors of the will are his widow, Mr. Stephen Hyam, solicitor, and Sir Ernest Clarke. Mr. Hart bequeathed to the trustees of the British Museum the signet ring of Anamophet, King of Thebes, and he appointed the trust fund of the settlement made on his first marriage to his sisters. After a few legacies to his relatives and servants he left his residuary estate to Mrs. Hart.

The Indian Medical Service doctors are slowly being sent back from military to civil duty, but the demands made by the plague, which is continuing to spread in the Punjab, despite the labours of the army of police and doctors engaged in endeavouring to check its progress, are so heavy, that it has not been found possible to re-open furlough as yet. The matter, however, is becoming urgent, as the number of doctors who have been denied furlough and been compelled to resort to sick leave, owing to broken health, is already excessive.

Sir George Robertson, K.C.S.I., M.R.C.S., Surgeon-Major I. M. S. the "brave civilian" of Chitral, has written a history of the famous siege from the point of view of one who was actually besieged in the fort. The work will be published by Messrs. Methuen in the autumn. Sir George Robertson, it is well known, is an officer of the Indian Medical Service. He was educated for the profession at Westminster Hospital, and has had a very distinguished career in India.

Professor Robert Koch has sent from Dar-es-Salam a report of his research on the surra disease of cattle, which he was able to study during an expedition to West Usambara. A series of inoculation experiments have convinced him that though mules are subject to the disease, donkeys enjoy immunity from it. This is important, as donkeys are the animals most useful for purposes of transport in the Usambara district.

The Committee of the Indian Antivivisection Society has addressed a circular letter to the native princes of India asking them to desist from giving their patronage and support to the Indian Princes' Victoria Health Institution on the ground that they should not support an institute where animal life may be tortured and sacrificed with the best intentions imaginable.

We regret to announce the death, on 2nd April, of Professor Salomon Stricker, the distinguished Professor of Experimental and General Pathology in the University of Vienna. Professor Stricker's name has been a household word among students of medical literature for so many years that most readers will probably be surprised to hear that he was only 65 years of age.

Horse-meat was served at the annual banquet of the Kansas City Veterinary College, 5th March. Though the banquet was elaborate, not a morsel of meat other than horse-flesh was served. From soup to roast it was all horse. The students and faculty of the college, who gathered around the board, made merry and insisted that it was appetising.

There are many Anglo-Indian missionaries in India. Robert Robinson and Dennis Osborne—India's Spurgeons—shine to the glory of their Master and to the honor of India. But Phœbe Rowe of Mussoorie was a bright jewel among Anglo-Indian lady missionaries. She has just gone to her rest, and her memory is blessed.

Readers will doubtless be pleased to hear that there is a decided falling-off in the number of students entering upon the study of medicine in Great Britain. The number of students registered last year was the lowest recorded for more than twenty years, and was fully three hundred below the average registered during the preceding ten years.

Dr. Patrick Manson of China will commence a course of lectures on Diseases of Tropical Climates at St. George's Hospital Medical School on 17th May. The course is intended for medical men who purpose practising in the tropics or in Eastern Asia. It will be illustrated, as far as possible, by clinical cases and by demonstrations of parasitic organisms.

Brigade-Surgeon H. C. Gillespie, M.D., Army Medical Department, who died at Richmond on 22nd March, was a graduate of the Royal University of Ireland. He entered the army in 1864 and retired in 1884. He served in the 70th Regiment, and in the Afghan Campaign of 1878-80 (medal).

Deputy-Surgeon-General Henry Cayley, F.R.C.S., formerly Professor of Military Medicine in the Army Medical School, Netley, has been appointed to deliver a course of lectures on Tropical Medicine at the Middlesex Hospital Medical School during the coming summer session.

On the motion of Dr. Blaney, the Bombay Medical and Physical Society have adopted a Resolution, that a congress of the profession be held in Bombay in December to consider the most appropriate means for dealing with plague epidemics in Indian cities, towns, and villages.

Sir William Turner, F.R.S., is elected President of the General Medical Council, as was anticipated would be the case. His eminent fitness for the position had been acknowledged on all hands, and that the Council shared in this opinion is shown by the fact that his election was not opposed.

Surgeon-Captain Moir has reverted from military employ, and his services have been replaced at the disposal of the Bengal Government. It is unlikely, however, that his health will permit of his resuming his appointment at the Calcutta General Hospital at present.

A plague scare has been caused in Calcutta because a few cases uncommonly like plague have ended fatally. No official opinion on the subject has yet been pronounced.

Some blood of these cases has been sent to Mons. Haffkine. There is no Government Medical Officer in Calcutta capable of making a bacteriological diagnosis. So we must wait on Bombay for a stranger's opinion, and on his fiat the fate of our city depends.

Surgeon-Major K. C. Sanjana has been appointed to act for Surgeon-Major Van Geyzel as Chemical Examiner, Madras. The permanent appointment of Dr. Sanjana is District Medical Officer, Tinnevelly. Surgeon-Major J. L. Van Geyzel has left for England.

Surgeon-Colonel McGann will be posted shortly as P. M. O., Bangalore, Surgeon-Colonel Branfoot taking his place at Rangoon. Surgeon-Colonel Johnson will take the place of Surgeon-Colonel Bateman as P. M. O., Madras.

Surgeon-General Cleghorn, at present at home on leave from India, and staying at Saint Ives, Cornwall, was thrown off from his bicycle and found lying on the road in an unconscious condition. The latest report is he had not received any severe injury and was doing well.

Mr. J. Tempest, M.D., U.S.A., F.C.S.M., of Oswald-whistle, was sued under the Apothecaries' Act on 7th March and mulcted in the penalty of £20 for practising as an apothecary.

The following have taken the degrees of *Doctor of Medicine* and *Bachelor of Medicine* and *Master in Surgery*, Aberdeen, respectively :—William Cardiff Hossack, M.B., C.M. Poona, and Edward Wood-Mason, Calcutta.

Professor Esmarch of Kiel, one of the veterans of surgery, intends to retire from his professorship very shortly. Esmarch is 75 years old, and has held his chair at Kiel for more than forty years.

In infants, according to Eustace Smith, pain in the head is indicated by wrinkling of the brow; pain in the chest, by sharpness of the nostrils; abdominal pain, by a drawing of the upper lip.

Surgeon-Colonel Maxham, lately Principal Medical Officer at the Cape, succeeds Surgeon-General Walsh as Principal Medical Officer, Bengal.

Surgeon-Major J. B. Gibbons, Superintendent of the Campbell Medical School and Hospital, Sealdah, is allowed privilege leave for three months, from the 25th April.

Surgeon-Captain H. W. Elphick, A. M. S., who was assaulted during the recent plague riot near Hardwar, is seriously ill.

We notice in the list of passes of the First Professional examination of the Edinburgh University that Mr. Maung Ba, a Burmese student, has passed in chemistry.

The Belgian Government offers a prize of $10,000 to any one who will discover a chemical that will take the place of phosphorus in match-making.

A home for the Sisters of the Punjab Nursing Association has been opened at Kasauli. Three lady nurses have arrived from England.

Apostoli claims to prevent cutaneous lesions in skiagraphy by forming metallic circuit with the earth.

Miss M. M. Traill Christie, M.D., has arrived in Calcutta for service under the Bengal Government.

Current Medical Literature.

MEDICINE.

Causalgia.

SILVIO describes two cases in which localised sensations of heat and cold were felt on the external aspect of the right thigh. The author coins two new words for the particular type of disease—namely, "kauma-æsthesis and psychro-æsthesis," but they are clearly allied to the group of cases associated under the name of "causalgia" by WEIR-MITCHELL. The first case was that of a healthy man, aged 44, who was suddenly attacked three years ago, whilst standing, with a burning sensation in right thigh, at first somewhat limited in area, but eventually extending almost the whole length of the thigh; at the same time there was a feeling of deadness in the skin. Sensibility to pain and heat was normal, tactile sensibility slightly weakened. The burning sensation ceased almost immediately on resting the weight of the body on the other leg or on sitting down. Friction over the part drove away the sensation for a short time. The attacks were intermittent, and occurred chiefly during the winter months. In all other respects the patient was quite healthy. Some twenty years ago, he suffered for about a year from a sensation as if drops of water were trickling down the internal aspect of the right thigh. The second case was that of a healthy man, aged 62, who for the last twenty years had suffered at intervals from a sensation of cold along the external aspect of the right thigh, induced, as in the previous case, by standing, and always relieved when lying down in bed. Never any pain or anomalous heat sensations in the affected part. The sensibility to various kinds of stimuli appeared perfectly normal, both in the affected area and in the rest of the body. Massage and thermo-mineral baths appeared to give relief, but did not cure.—*Brit. Med. Jour.*

Syphilitic Jaundice.

SOME attribute this condition to (*a*) compression by enlarged glands in the portal fissure, others to (*b*) papular eruptions in the intestinal tract, some to (*c*) exhibition of mercury, and others to a variety of causes; but WERNER, who bases his conclusions on 57 cases occurring among 15,799 early syphilitics, fixes the frequency at about 0·37 per cent. and thinks that syphilitic jaundice is characterised by (1) its appearance in the early secondary stage, (2) the presence of fresh specific manifestations, (3) the influence of treatment and (4) its sudden development without gastric disturbance. Sometimes the jaundice preceded, at other time it followed, and in others took the place of a relapse; but its intensity varied much, and though it sometimes increased when antisyphilitic treatment was commenced, it could not be due to mercury, because it reached its acme and rapidly disappeared before the treatment ceased, and hepatic enlargement was not a striking feature while 1·7 per cent. were a typical cases. Xanthopsia was observed in 6 per cent., and in 44 per cent. the jaundice occurred within 6 months after the infection, while in 8½ per cent. there was marked glandular enlargement with cutaneous affections in 36, affected mucous membranes in 32, and affections of both the skin and mucous membranes in 32 per cent. Ordinary catarrhal jaundice may occur in the syphilitic or jaundice may be an early manifestation of cirrhosis of the liver, but the jaundice occurring in either of these conditions or in late syphilis is quite distinct from that of early syphilis.—*Munch. Med. Woch.*

Treatment of Epilepsy.

DR. PAUL FLECHSIG states that, by his bromide-opium method of treatment, in a series of fifty cases, he has had six

continual [illegible] with cessation of attacks for two and the fourth years. All the patients presented the following: (2) long duration of the disease, some over twenty years; (3) other treatment, and particularly by bromides has been without avail; (3) all kinds of psychical phenomena were present, such as weak memory, lack of nerve tone, irritability, morbid fear; (4) a "torpid" constitution, generally with anæmia. As a rule, he does not begin with the combined opium and bromides treatment, except in those cases in which the disease has apparently developed through fear, sorrow, etc.; but starts with the ordinary bromide treatment. He uses the opium when bromides do not affect the disease, when bromidism begins, etc. The reasons for the good results of this treatment are as yet not positively known. The writer regards diet, rest in bed, rectal enemata, etc., as important accessories to the treatment. It may be that the opium produces its good effects in overcoming the nervous irritability and the causeless fear of these patients, for most epileptics are psychically perturbed. The patients must be treated as if quite ill, *i.e.*, they must be under the continued observation of the physician and of a reliable nurse.—*N. Y. Med. Rec.*

Treatment of Tuberculosis and other Infections with the Oxytoxines.

NOTHING that when tuberculous peritonitis is subjected to laparotomy the access of air oxidises the tuberculin present in the peritonitis into antitoxic oxytuberculin which cures the local and the general tuberculosis, HIRSCHFELDER tried to realise this oxidation outside the organism with cultures of a very virulent tubercle bacillus which he reared in *perfectly* sterilised bouillon mixed with oxygenated water (ten degree test) of which more and more was added every 12 hours until at the end of 96 hours there was an excess of oxygenated water in the bouillon mixture, which becomes non-toxic in itself but antitoxic in action, provided *all* the tuberculin is oxidized. Now phthisis being the result not of a pure tuberculosis but of a mixed infection, he sowed the expectorations of phthisical patients and treating the cultures (so obtained) in the same way as those of KOCH'S bacilli he obtained a liquid (*oxysepsin*) whose subcutaneous employment was not attended by local pain or fever. The amelioration of the general condition was so rapid and so agreeably astonishing, especially after the combined injection of oxytuberculin and oxysepsin that HIRSCHFELDER believes that this treatment would be very successful in pneumonia, streptococcic infections and empyema.—*N. Y. Med. Jour.*

Beri-beri.

BOLL and LAACHE observed two cases of beri-beri in Norwegian sailors who had returned from countries to which this disease is peculiar. BOLL believes that the infection is due to the drinking-water. The two sailors had spent three months in a port where beri-beri was endemic, but no one on board the vessel contracted the disease. During this time they used drinking-water brought from Europe. A month after the vessel had been supplied with water from this port, and when out at sea, the disease showed itself on board.—*Univ. Med. Jour.*

Venesection in Nephritis.

BACCELLI thinks that the importance of the venous stasis in the early stages of nephritis is not generally realised. It is his practice to relieve the pressure in the vena cava inferior by opening the dorsal vein in the foot and withdrawing 300 grams of blood (adult), repeating the operation if there is reason to believe that the renal stasis still persists.—*Jour. Amer. Med. Assoc.*

SURGERY.

Large Doses of Iodine in Eye Affections.

PAGENSTECHER remarks that large doses (5 g. to 25 g. a day) of iodine are often well borne even where the usual doses call forth symptoms of iodism. The first case in which the use of large doses of KI gave striking results was one of orbital tumour, thought possibly to be sarcomatous, which was increasing in size under small doses of KI. Removal of the orbital contents was proposed, but PAGENSTECHER was led to try much larger doses of KI first of all; this brought about some shrinking of the tumour in a few days, and the immobile eye became less fixed. Iodide of sodium (7 or 8 g. a day) was now combined with the iodide of potassium, and within a fortnight the protrusion of the eye had so far receded that the lids could be closed. A fortnight later the swelling had completely disappeared. For a time the treatment caused profuse night sweats. Another class of case in which this treatment has been very beneficial is episcleritis more particularly when there is much thickening, with secondary involvement of the iris and cornea. In paresis and paralysis of ocular muscles similar results have been obtained, but not so uniformly. PAGENSTECHER begins straightway with large doses of KI in combination with bromide; 20 g. KI and 75 g. KBr. in 200 g. of water, a tablespoonful directly after meals, three times a day, either plain or in seltzer water or milk; the dose is increased by a tablespoonful a day till 8 or 10 g. of KI are being taken. After a fortnight iodide of sodium in the same or larger doses is ordered, and continued, perhaps, for several months.—*Brit. Med. Jour.*

Is it ever impossible to pass a Catheter through the Urethra into the Bladder?

DR. BUCKSTON BROWN discussed this question before the Harveian Society at a meeting of recent date. He thought that it was never impossible to pass an instrument, even in the worst cases of stricture of the urethra, unless the urethra had in some part of its course actually ceased to exist. If an instrument was once passed, the case could be brought to a successful issue without any perineal incision, and, that being so, the patient was saved all the risks of hæmorrhage and of that terrible misfortune, a perineal fistula. In the most severe cases of prostatic enlargement the urethra was simply tortuous. The difficulties were fully described, and instruments were shown by which they could all be overcome. In no prostatic case was it allowed that the urethra was impassable by instruments, and therefore there was rarely any real need for any form of prostatectomy or for castration. All the other forms of urethral obstruction were discussed, and the question which formed the title of the paper was answered emphatically in the negative.—*Med. Brief.*

Surgery of the Stomach.

M. DOYEN gives his experience with regard to the result of 146 cases of surgical operations upon the stomach. Of these, 66 were malignant and 80 non-malignant. There were 22 deaths in all and 20 of these were in cases of cancer. Of his last 55 cases 50 were successful, 5 of the patients being *in extremis* when they came under treatment. Gastro-enterostomy is a proper treatment for dilatation and ulcer with or without hæmatemesis. ROUX'S method is the only satisfactory one; it avoids all danger of infecting the peritoneum. M. DOYEN makes use of the three compression forceps which were originally made for compressing the pedicle of ovarian tumours. Recovery is undisputed in cases of serious dyspepsia or where there is ulceration without pyloric stenosis. The patients are like everybody else and

are quite resistant that they have a remedy. The operation is also to great benefit to patients who frequently suffer from intestinal disorders, hæmatemesis, etc., after its performance and the biliary function is re-established.—*Lancet.*

The use of Gloves in Practical Surgery.

Fürbringer attaches much importance to the use of gloves in surgical work, especially in the examination of cavities such as the vagina and rectum, in dealing with septic wounds during a course of operative surgery on the dead body, and in the performance of any aseptic operation. By this precaution the surgeon may effectually guard both his patients and himself from serious danger, and so prevent in the first place the infection of a fresh and clean wound from the contact of his fingers during an operation on the living subject, and, in the second place, infection of his own fingers by a foul wound or contact with the cadaver. A suitable glove for such purposes must, it is pointed out, fulfil the following conditions: It should be rendered impermeable by the addition of some waterproof substance, either applied as an external layer, or diffused through the whole thickness of its material; such material should be very soft and pliant, and, at the same time, not likely to be readily torn; it should not compress the skin too much, and render the hand warm; and finally, it should be capable of being readily and thoroughly disinfected.—*Brit. Med. Jour.*

Treatment of Empyema.

Lewaschew, on account of his success in the treatment of serofibrinous pleurisies by the removal of the exudate and the injection of a like quantity of normal salt solution, advocates the same measures in empyema, except in septic cases and where there are strong adhesions of the pleura. He removes the pus, washes the cavity with the salt solution until the fluid returns clean, and then leaves as much of the salt solution in the cavity as the pus removed. This operation will have to be repeated in five to ten days. Usually the third time effects a complete cure, though it may have to be done four or six times. The advantages of this method of treatment are evident. The duration of treatment is very much shorter; there is no change in the shape of the chest; the pleural layers are not adherent, and the lungs are completely movable, elastic, and can be inflated to the greatest volume which they had before the illness.—*M. T. & H. G.*

Direction in which Cancer of the Breast Spreads.

Gerota has made investigations to determine the course of secondary infection from cancer of the breast. He finds that the lymph-vessels are intimately associated with the branches of the internal mammary artery. This explains the occurrence of the infection of the retro-sternal glands and the early adhesion of the pectoral muscles; and further, the occurrence of secondary nodules in these muscles. He also found that the glands of the thorax do not have independent sets of lymph-vessels but that these are in intimate relation with one another, which explains the spread of cancer from the right side to the left side, or the reverse.—*Med. News.*

Compression of the Sciatic Nerve.

Dr. Abulafia has improved upon digital compression for sciatica by substituting a double-pad apparatus for the fingers. He has applied it to forty patients: two were improved, six were unimproved and thirty-two were cured. He recommends compression of the popliteal cavity besides the point where the sciatic nerve emerges in the thigh. The general condition of the patient and the location of the pain are better criteria for the success of the measure than electric tests or the duration of the affection.—*N. Y. Med. Rec.*

Action of Quinine Sulphate on Strength during Labor Pains.

While quinine sulphate has little or no power for inducing labor pains, Schwan is positive that after uterine contractions have once begun the administration of quinine causes them to become rapid and energetic. He obtained excellent results from its use in all cases of prolonged labor due to uterine inertia. While quinine strengthens the labor pains, it does not tend to induce abortion. Unlike ergot, it causes intermittent and not tetanic contractions, and may therefore be prescribed without danger during the second stage of labor. Its action begins in about one-half hour; the drug is therefore best given in two doses of eight grains each, within a period of ten minutes. Quinine is indicated if, after rupture of the membranes, labor is unnecessarily prolonged on account of uterine inertia, the mother is exhausted, and there is danger of the child becoming asphyxiated. While quinine has a tendency to produce post-partum hemorrhage, this is easily controlled by massage of the uterus.—*N. Y. Med. Rec.*

Blood Pressure in Pregnancy, and the Catamenia.

Jedoroff notes that the ovaries not only develop ova, but also secrete a chemical compound which plays a part in general nutritive changes. Hence ovary juice actually remedies constitutional disturbances during the menopause, especially when that change is artificial, being due to removal of the ovaries. Ovarian juice, when administered to guinea-pigs, increases arterial tension and diminishes cardiac activity. The substance extracted from the uterine mucosa, from menstrual blood, and from the mammary glands promotes a diminution of tension and increase in cardiac activity. Jedoroff inquires if the elevation of arterial tension before the appearance of the catamenia and its fall when they appear do not represent a balance of the influence of the ovary juice and of a less known uterine substance. For the elevation of tension about a week before the flow precisely corresponds with the period of maximum ovarian activity, and therefore with the time when most ovary juice enters the circulation. On the other hand, the fall in arterial tension some four or five days before the "show" corresponds with the period of maximum uterine activity, when the menstrual decidua is developing. Batzeritch finds that arterial tension progressively increases after the fifth week before term, and remains higher than in pregnancy during the first days of child-bed. For at the end of pregnancy the uterus loses its glands, so that the ovarian function prevails and arterial tension increases.—*Brit. Med. Jour.*

Fatty Degeneration of the Uterus during Pregnancy.

L. M. Bossi, in the examination of three human uteri, one removed at the eighth month of pregnancy and the other two at full term, found the process of fatty degeneration of the muscular fibres in active progress. He asks whether this is a physiological condition, and if it be so, whether it may not explain the wonderful rapidity with which involution of the uterus after labor normally takes place. Further, it may be asked whether in this fatty degeneration there exists an explanation of some cases of inertia uteri in labor. Bossi has attempted to investigate the subject by experiments on animals (tying the uterine blood vessels), but does not regard the results as applicable to the human uterus.—*Brit. Med. Jour.*

Painful Peritoneal Adhesions.

Are usually due to inflammation of one of the abdominal viscera, and may be cut up by laparotomy, but Hove Jos-

BERARD and GUINARD (*Lyon Médical*) who were very successful with their cases, refute TRENDT'S suggestion that contusion of the abdomen, apart from inflammation, has set up intra-peritoneal adhesions and, quoting their own good results against the objection that operative interference is likely to set up *fresh* adhesions, advise scrupulous antiseptic precautions during operation subsequent to which active peristalsis of the bowels by means of purgatives and enemata. The diagnosis is difficult and the adhesions are sometimes not discovered till abdominal section for some other reason; and even when their presence is suspected, they may often be allowed to disappear by spontaneous absorption; but if after months of patience the pain gets worse, operation is justified. The pain is variable, thus it may be fixed and continuous and bear no relation to intestinal movements, or it may be intermittent like colic and precede but be relieved by the act of defecation. The adhesions may become more painful during menstruation or produce constipation by interfering with the intestines, or, if attached to the bladder, may cause cystitis and dysuria.—*Brit. Med. Jour.*

Comparative Indications for Classic Cæsarean Section and Porro's Modification.

CARSTENS concludes a paper upon this subject with the following general rules:—1. Cases operated upon at private houses, with poor facilities and by inexperienced abdominal surgeons, should be subjected to the PORRO operation, the extra-peritoneal clamp method being used. 2. Cases of deformed pelvis, perhaps requiring a similar operation in the future, should be subject to the PORRO operation, even if operated upon in a well-equipped hospital, unless the patient decides otherwise. 3. Cases requiring abdominal section on account of removal of tumors only should be subjected to classic Cæsarean section if the operation can be performed in a hospital, or in a private house where all proper facilities can be obtained. 4. Classic Cæsarean section should also be performed if the patient desires it, no matter what the future may bring forth.—*N. Y. Med. Rec.*

Foreign Bodies in Utero.

DR. MITTERMAIER describes two very interesting and rare cases. In the first case a silk ligature was left in the uterine cavity by an operator after ligating the pedicle of a submucous fibroid previous to its removal. This ligature became a nucleus of infection, causing suppuration, pyosalpinx and septic fever. This necessitated a radical operation, from which the patient recovered.

In the second case a physician, after curetting his patient, made use of a glass catheter for purposes of irrigation. The catheter broke and the fragments could not be got at. MITTERMAIER delivered the fundus through an anterior vaginal incision, split open the body of the uterus with scissors, and thus exposed the uterine cavity in its entire length. Five pieces of broken glass were removed, the incision closed with catgut, and the fundus of the uterus sewed to the vaginal wound. This patient also made a good recovery.—*Post Graduate.*

Nausea of Pregnancy.

ONE-THIRD of all pregnant women are free from morning nausea during the entire pregnancy, and forty-five per cent. remain free from it during the first three months. If it occurs, it presents itself in seventy per cent. of the women in the first month of pregnancy, seldom in the second, third, or fourth months, and very rarely in the fifth and sixth months; in from nine to ten per cent. it begins in the last three months of gestation.—*N. Y. Med. Rec.*

PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

Functions of the Thyroid Gland.

DR. DE CYON reported to the Academy of Sciences of Paris that he had made numerous experiments to determine the physiological relations between the nerves of the heart and the thyroid gland. He thinks that he has discovered two important functions of this organ not previously known. First, the thyroid gland produces iodothyrin, which accelerates the functioning of nervous centres which regulate the beating of the heart and the circulation of the blood. The function of the thyroid gland aids in transforming the salts of iodine in the blood into an organic compound, which is iodothyrin, and in relieving the nervous centre of an exceedingly dangerous toxic substance. The heart, by the intervention of the nerve filaments that it sends to the two laryngeals, directs the production of iodothyrin indispensable to its normal functioning. Second, the thyroid bodies, situated at the entrance of the carotid arteries into the cranial vault, constitute an apparatus intended as a protection to the brain against the danger of a sudden flow of blood; as the latter are provoked by too great heart action or by a notable contraction of the circulatory vessels. This preservative function of the thyroid glands is likewise ruled by the heart. In occasioning marked dilatation of the thyroid vessels, the heart intervenes as a safeguard of the cerebral organs either (*a*) in working, so to speak, the sluice gates in case of sudden danger, or (*b*) in increasing the production of iodothyrin in the case of persistent danger. Two important points in the treatment of goitre resulted from the researches of Dr. DE CYON. In the vascular and hyperæmic form of this affection, it is necessary carefully to avoid the employment of thyroid product and to have recourse to the internal employment of iodine. On the contrary, the thyroid products will be very useful in cases of atrophy and of strumous cachexia. In cases of immediate danger section of the expressor nerves in the vascular forms of goitre, and of the sympathetic nerve in the atrophic forms, may be tried; but for these atrophied forms, extirpation of the gland will always have a more immediate and lasting effect than section of the sympathetic nerves.—*N. Y. Med. Rec.*

Estimation of Albumen in Urine.

WASSILIEFF says the albumen may be estimated gravimetrically by mixing the urine with four volumes of ninety-five per cent. alcohol, warming the vessel by five minutes' immersion in hot water, filtering off, drying, and weighing the precipitate, and deducting the weight of the ash.

A rapid volumetric method consists in diluting ten to twenty cubic centimetres of the urine (acidulated with acetic acid if alkaline), mixing with two drops of a one per cent. solution of *fast yellow*, and titrating with a twenty-five per cent. solution of salicyl-sulphonic acid until the brick-red color produced is permanent.

One part of albumen in 80,000 of urine will show a distinct turbidity.—*Treatment.*

Nerve Cells in Alcoholic Neuritis.

IN the *Comptes Rendus des Séances de la Société de Biologie*, DEJERINE recently related an interesting observation. A man given to considerable alcoholic indulgence began to suffer at the age of forty-one years from severe multiple neuritis affecting all four extremities. There was considerable atrophy with contractures and general hyperæsthesia. In the course of the next three years there was slow improvement, so that the upper extremities again became normal. The lower, however, remained as before, complete-

ly paralysed. A few following fair death ensued as a result of cirrhosis of the liver. Microscopical examination revealed considerable alterations in the cutaneous and motor nerves. The spinal cord, examined by NISSL'S, MARCHI'S and the WEIGERT PAL method, revealed no alterations in the cells or in any other part, and the case shows that in spite of very great alteration in the peripheral nervous system the anterior cornual cells may remain unaffected in alcoholic paralysis.—*Lancet.*

Amyloid Degeneration.

PROFESSOR LUBARSCH, of Rostock, who has been conducting an extended series of experiments on dogs, rabbits, and guinea-pigs, endeavouring to produce amyloid degeneration, has published his results in the *Archiv für Pathologische Anatomie und Physiologie und für Klinische Medicin.*

As in human pathology, amyloid degeneration does not always follow chronic suppuration even of long standing. Only a portion of the animals revealed amyloid substance in their organs after being subjected to artificial chronic suppuration. In the experiments the chronic suppuration was produced either by injection of oil of turpentine or bacteria, mainly staphylococci. It appears that amyloid degeneration once established may disappear again.

In concluding, the author expressed his thanks to the Elizabeth Thompson Science Fund of Boston for supporting him so liberally in his costly experiments.—*Med. Age.*

Anthrax.

No immunizing substances found in the blood either of animals treated with PASTEUR'S vaccine or of those who had passed through an attack of anthrax. In animals treated for weeks and months with increasing doses of virulent anthrax cultures so that an active immunity is acquired, such protective substances are present in the blood The serum obtained from a sheep thus treated conveyed a certain degree of immunity when injected into rabbits Attempts at cure of the disease in rabbits were without effect. In 2 out of 7 sheep in which 100 to 150 cubic centimetres of normal serum from a lamb were first injected, then a small quantity of a virulent anthrax culture, both animals succumbed. Three other animals were given a single dose (50, 100, and 200 cubic centimetres of serum), and later a virulent anthrax culture. All these animals recovered. The sixth and seventh animals were also injected with smaller virulent cultures; later with anthrax serum. Both recovered.—*Chic. Med. Mag.*

Plague Bacillus.

(*a*). KLEIN describes the characters of the plague bacillus. He was unable to produce any marked immunity in guinea-pigs by the injection of small non-fatal doses of living culture by the blood of a guinea-pig which had twice passed through the typical disease, or by injections of sterilized cultures.

(*b*). In the same volume BUCHANAN describes his investigations in two cases of bubonic plague which occurred in London in October 1896, ascribing the cause of infection to some plague-insected article among the personal belongings of the victims.—*Treatment.*

Typhoid Bacillus in Milk.

CAUTLEY finds that the typhoid bacillus will live in milk under the conditions that ordinarily prevail in a household. When artificially added in large amount to milk in the natural condition, its presence in the living state can be demonstrated for several days. There is no indication that the organism multiplies under these conditions—in fact, it is probable that the numbers diminish.—*Treatment.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Public Laundries and Infected Linen.

M. VALLIN submits a report on this subject to the Municipality of Paris. In that city, as soon as an infectious disease is notified, a member of the disinfecting staff is sent to the infected house with a bag to receive the linen soiled during the disease. This is removed at stated intervals, another bag being left in its place. The linen is disinfected and then sent to the laundry. Though considerable advantage is taken of this measure (in 1896, 10,000 of such disinfections were made), many have objected to it, on the ground that stains, *e.g.* of blood or fæces are fixed in the fabric during steam disinfection. This is now obviated by such stains being removed by rubbing and rinsing in water previous to disinfection, which may easily enough be done in the house before the linen leaves it.

But great danger may arise from soiled linen in such diseases as tubercle, suppurations, diarrhœa, etc., which are neither notifiable nor considered by the general public to be infectious. This necessitates certain preparations with all linen sent to public laundries. The most dangerous operation is sorting out the articles prior to washing. He recommends—(1) That the bag containing the soiled linen be washed each time it comes to the laundry, and the clean linen returned in it. (2) The sorting process be done in a separate room cut off from eating or sleeping apartments. (3) Each bag to be opened under a fine spray of water, so as to sufficiently moisten the clothing, and thus prevent the escape into the atmosphere of any dust containing micro-organisms during the process of sorting them out.—*Edin. Med. Jour.*

Water from a Biological Point of View.

WHILE formerly the quality of water as to purity was thought to be a matter of chemistry and determinable by chemical analysis, the whole tendency of modern research has been, as Dr. A. H. VEEDER, has shown in a paper read before the American Microscopical Society, to cause the question of the spread of disease through the agency of water to be regarded rather as a biological one. The danger is determined by the presence of certain living organisms and of conditions on which their continued existence depends, and not upon the quantity of them. The smallest possible inoculation may be fatal through their power of self propagation, and there is no fixed dose But if their growth is hindered by unfavorable conditions, they may become harmless, no matter how many of them there may be. The purification of water depends on the destruction of these organisms or the production of conditions unfavorable to their growth.—*Appleton's Science Monthly.*

Asses' Milk for Infants.

RIC. KLEMM, urges the claims of the once fashionable but of late years much neglected asses' milk as the best food for young infants. Tuberculosis is, he urges, unknown in the ass; the milk resembles that of the human female in reaction, in chemical composition, and in its behaviour in natural and in artificial digestion. This similarity is most marked in the character of the casein and in the relative proportions of casein and albumen—a point of the highest importance, and that in which cow's milk differs most from woman's. Not needing dilution, as cow's milk does, the excess of water necessarily given with the latter, and the consequent diuresis familiar to mothers and nurses of bottle-fed infants is avoided. Its only defect is in the lower percentage of fat, which, though not felt in the first three or four months of life, must be compensated in some way later. This question he leaves unsolved; but we would suggest the simple

addition of fresh cream, which, besides the fat, contains practically the whole of the albumin present in the milk, with if the separator be used instead of the old process of skimming, none of the casein. We may take this opportunity of urging that whenever it is deemed expedient to give cream to infants, separated cream should be insisted on, since it is obtained from perfectly fresh milk, whereas the cream does not rise spontaneously so as to admit of its removal by skimming until lactic-acid fermentation has commenced. The albumen, which is the chief nitrogenous constituent of woman's milk, and incomparably more easily digested by the infant than any casein, especially that of cow's milk, is present in cow's milk almost exclusively in the form of the envelopes of the fat globules, by which their integrity and suspension is maintained, until broken in the process of churning, when they blend to form butter.—*Practitioner.*

Dogs and the Public Safety.

ANY law which tends to protect the public from the likelihood of being bitten by stray and possibly rabid dogs should find general favor in the Dogs' Regulation Bill, as the Government have named their measure framed for this purpose, is an improvement on such fragmentary and spasmodic Acts and Orders as have preceded it. Put briefly it enables county councils to make regulations facilitating the identification of dogs and their owners, and assists the police and the public in getting rid of ownerless and destructive animals, while it leaves to the Board of Agriculture the powers which it had already under the Diseases of Animals Act, 1894. These include the prescribing and regulating of dog muzzling and also the prescribing and regulating of the seizure, detention, and disposal of stray dogs, so that the Board presumably will not only be the sole muzzling authority, but will be able to step in and deal with stray dogs in any place where the local authorities have not taken steps to diminish their numbers. The Board will, we imagine, have the power to order universal muzzling; at any rate it will act with more authority and scientific knowledge than is usually at the disposal of local authorities and, if necessary, upon a larger scale. There are, of course, many matters of detail in the Bill that will be criticised and more carefully defined when the Bill reaches the committee stage, as, for instance, the branding to be allowed for purposes of identification, and inserted presumably for the benefit of hounds, while the arbitrary powers given to the police to diagnose and destroy suspected cases found upon the highway will probably be curtailed, but apart from minor alterations, the Bill is more likely to find public favor and be enforced by the police than the muzzling orders that have preceded it. The practical question of enforcement remains the chief difficulty.—*Lancet*

Termination of Liability for Care at Hospital.

ST BARNABAS HOSPITAL v MINNEAPOLIS ELECTRIC COMPANY is the title of an action brought to recover for the care and treatment of one of the employés of the defendant company, whom it had taken, after he had been seriously injured, to the hospital named, where he was received as a patient for an indefinite period, no length of time being mentioned, at the company's request and upon its promise to pay for his care and treatment. Subsequently, and while the patient was yet incapable of being removed or discharged from the hospital without great danger to his life or health, the company gave notice that thereafter it would not be responsible for his care or treatment. Could the company thus terminate its liability, especially at such a time? The supreme court of Minnesota holds not. It holds that under the circumstances it was an implied condition of the contract that the company could only terminate its liability by removing the patient or when he could be dismissed by the hospital without serious danger to his life or health. In order to relieve itself from liability for care and treatment furnished after the notice on the ground that the patient had means of his own to pay for it, the court further holds that the burden was on the company to prove that he had means out of which the hospital could and should have collected its pay. But for the hospital to maintain its action, the court intimates that the burden belonged to it to prove that the patient could not have been dismissed without great danger to his health or life until the date of his dismissal, or that at least it could not recover pay after the notice against the company beyond the time to which it proved that such condition extended.—*Jour. Amer. Med. Assoc.*

THERAPEUTICS AND PHARMACOLOGY.

Ferratin in Anæmia.

FROM 2 to 6 grains of this drug given three to four times daily without any other medicine is highly recommended by BOLDE, who quotes three cases: (1) A girl æt., 12 with simple anæmia of a marked degree, was cured in 30 days. The red blood corpuscles ran up from 3,000,000 to 5,000,000 per c. cm., while appetite improved, constipation disappeared, and so also the sensation of fatigue and the cheeks and mucous surfaces were tinged with a healthy red color. (2) In a girl æt. 16, with anæmia and constipation for three years, improvement was not noticed till the 21st day under ferratin, and by the 49th day cure was complete. (3) A youth of 17 was bad with insomnia, anorexia, headache, and too easy fatigue, which prevented his joining in sports; but 2 grains of ferratin four times daily gradually improved his condition, so that in 30 days his bad symptoms disappeared and the blood count showed the red corpuscles had increased from 2,800,000 to 3,400,000 per cubic centimetre.—*Chic. Med. Rec.*

Decomposition of Iodoform by Light.

WHEN ethereal or alcoholic solutions of iodoform are exposed to light, decomposition takes place, the iodoform being gradually decomposed and the solution becoming brown and losing a good part of its therapeutic value; but FLEURY notes that after a time the action of light appears to be nullified, because the change in color prevents the violet and ultra violet rays, which are the most active passing beyond the surface, and thus stops further action; but if there be present some body that will combine with the iodine as fast as it is liberated, the decomposition of the iodoform goes on till the whole of its compressent iodine is liberated. Hence in dressing wounds with iodoform solution metal syringes or douches should *not* be employed.—*Jour. de Pharm. et de Chim.*

Potassium Bichromate as an Expectorant.

IN laryngitis and bronchitis Dr. J. E WEAVER found bichromate of potassium very useful, especially when the secretion is stringy and hard to raise; but he values the drug most in tonsilitis with a rapid onset when the tonsils are rough, raw and angry-looking with mucopurulent exudates from the follicles. In bronchitis and laryngitis he gives a teaspoonful every two hours of a mixture of 1 grain of the salt in ℥iv of water; but in tonsilitis he adds the finely powdered bichromate to water until the latter is of a dark lemon or light orange shade, and of this solution he gives a teaspoonful every hour till it nauseates the patient when he lessens the dose. For this treatment he claims marked improvement after the third or fourth dose. The drug is also a story antiseptic.—*Med. Record.*

Acute Mania.

℞ Sulphonal	... ...	gr. xv.
Sodii bicarbonatis	... ...	gr. iv.

M. For one cachet. S. From one to three such cachets daily. In cases that are rebellious much larger doses are given.—KADT.

Teething Powder.

Hydrarg. subchlor.,	
Pulv. antimonialis,	
Pulv pot nitr.,	
Pulv. mooh. alb.	aa. partes æquales.

Dose Under 1 year, 2 gr.; over 1 year, 4 gr.

This is better without the nitre.

Laville's Gout Cure.

THIS patent preparation is said to have the following composition:—

Take of—

Quinine	7·7 gr.
Chinchonine	9·3 gr.
Colocynthin	3·8 gr.
Lime salts	7·6 gr.
Coloring matter	4.6 gr.
Alcohol	3 ½ fl. dr.
Water	2 ½ fl. dr.
Port wine	1394.6 fl. dr.

—*National Druggist.*

Acute Coryza.

The following application will be found useful in acute coryza :—

R. Chloral	...	...	gr. viij.
Castor oil	...	...	ʒss.

M.

To be snuffed over the nasal mucous membrane after preliminary cleansing of the surface.

Bay Rum.

Ol. myrciæ acris	...	...	ʒij.
Ol. pimentæ	...	...	mlxx.
Spt. saccheri	...	...	ʒv.
Spt. vini tenuior, ad	...	...	Oj.

M.

Corn and Wart Paint.

Ac. salicylic	...	...	ʒiv.
Pulv. resinæ	...	...	ʒij.
Tr cannab. ind. ad	...	...	ʒiv.

This is used by painting on the corns in the same manner as the ethereal corn-cures.

Antiseptic Varnish.

R Powdered lac	...	...	900 grains.
Balsam of Tolu	...	...	75 "
Thymol ...	...	...	22 "
Alcohol ...	...	...	750 "
Ordinary ether	...	...	1,500 "

M. Filter.

Liver-Mixture.

Ac. nit. mur dil.	...	...	ʒiij. mlxx.
Ext. cinchon liq.	...	...	ʒij.
Tr. podophylli ...	...	...	ʒij.
Ext. taraxi. liq. ...	...	...	ʒij
Glycerini ...	...	...	ʒij.
Inf. chiretta ad	...	...	Oj.

Mix and filter bright

One tablespoonful two or three times a day after meals.

Antiseptic Cream.

Powdered boric acid	...	...	1 oz.
Powdered oleate of zinc	...	...	1 oz.
Lanoline	..	...	2 oz.
White vaseline	...	...	2 oz.

Mix.

Therapeutic Brevities.

HÆMOGLOBIN is a pleasant tasting and stable liquid preparation of hæmoglobin.

EPIDERMIC is made by mixing equal parts of white wax glycerin, mulilage acacia and *freshly* distilled water.

ACERDOL, which appears to be pot. permang. containing free potash, is a new disinfectant.

EUPTHALMIN or methyl vinyldiac etonalkamine hydrochlorate is a new mydriatic.

IODOGALLICIN, the new bismuth compound of oxyiodomethyl gallol is a valuable antiseptic powder.

CAPTOL and CHLORALCYANHYDRATE, which are new chloral compounds with tannin and prussic acid, respectively are suggested as hypnotics, but have not been extensively tested.

OSSIN, or ext. ossium liquidum is a dark brown bitter tasting liquid, which has given good results in diabetes.

GYMNEMA SYLVESTRE, common to Assam, is suggested as a means of disguising quinine and other disagreeable medicines, since it has, when chewed, the peculiar property of temporarily neutralising the sense of taste as regards bitter and sweet things, while sour and saline substances remain unaltered.

[illegible] is highly commended as a substitute for potassic iodide every one of whose therapeutic effects it possesses, without any of the evil effects such as iodism, etc.

Correspondence.

THE RIDICULOUS MEMORIAL OF SEVENTY-NINE MEDICAL WOMEN.

To the Editor, "Indian Medical Record."

Sir,—It may be a sign of the times, if so, it is a very unwelcome one, that 79 medical women should separate themselves from the great majority of medical practitioners, and repudiate the traditions of the profession they have joined by entering the political arena and presenting a memorial to the Secretary of State for India, protesting against the measures recently enacted for dealing with venereal disease in the Indian Army.

The importance of this memorial does not arise from the influence, power, or number of the feeble hands by which it was presented, it arises from the fact that behind it is arrayed, all of what Mr. Rhodes would call the unctuous self-righteousness of England. It arises from the unscrupulous manner in which such literature is distributed throughout the length and breadth of the land, amongst Rectors and Curates guiltless of all knowledge of the world, amongst women of all classes, and even amongst unmarried girls.

Were this memorial merely sent to those who could gauge it at its proper value, nothing would ever be heard of it.

Putting all these questions on one side, it is my intention, with your kind permission, to point out in your columns, which are always open to fair comment from whatever side it comes, the utter worthlessness of this memorial.

It is full of fallacies of the worst kind, its statements are untrue, and its inferences illogical.

It would take up too much of your space were I to discuss every point in which this memorial lays itself open to severe criticism. I will therefore content myself with noticing a few, which appear to be of most importance.

This memorial endeavours to show that venereal disease differs in certain respects from other infectious and contagious diseases, so that the methods applied to keep them in check are inapplicable to venereal disease. In the first place the memorial says :—"With respect to venereal disease, it lies to a large extent within the power of the individual to avoid infection. With other contagious diseases there is not the same power of voluntary escape."

Now this sounds plausible enough, but it is untrue to a very important extent, and it is this very point that these 79 medical women totally ignore, or are callously blind to what their natural instincts should have told them was their first duty.

Can the woman who marries a diseased man, without knowing that he is diseased, and thereby contracts venereal, be said to contract the disease voluntarily? Can the children born of a syphilitic parent be said to have it in their power to avoid infection?

The authors of this memorial know that some 8,000 cases of venereal disease are imported every year from India to England; they also know the insidious and terrible results that half-cured gonorrhœa may inflict

upon women after marriage; but instead of taking every means in their power to protect innocent women and children from these fell diseases, they actually accuse them of being willing participators and of contracting the disease voluntarily

To sustain the distinction they have set up between venereal and other contagious diseases, they say:—

"Other contagious (contagious of course meaning 'infectious and contagious,' as stated a few lines higher up in the memorial), diseases are, as a rule, easily recognised, rarely or with difficulty concealed, treatment is voluntarily sought, and no question of conduct or character is involved."

Now supposing that all these propositions were true, which they are not, supposing that venereal diseases were very difficult to recognise, that they were frequently concealed and that treatment was not sought voluntarily, surely if such were the case, it would form no argument to permit these diseases to go free and uncontrolled; on the contrary, it would be an admirable reason for closer and stricter legislative measures.

It is, however, manifestedly absurd to state that venereal diseases are more difficult to recognise than typhoid fever for instance, and if it is a fact that the infectious diseases are rarely concealed, and that treatment is voluntarily sought in *England*, it must be remembered that this is so under compulsion, and that it was not the case until concealment was made illegal, and a law passed, with penalties attached to it, for the notification of certain infectious diseases.

But England is not India, and we have all had a bitter experience of the talents of the native of India for the concealment of all forms of infectious disease.

Now as for the question of conduct or character, I fear that these medical women hold very narrow views, analogous to their view of the word morality, which has no meaning for them except *sexual* morality

Supposing a person, suffering from scarlatina, or in charge of a scarlatina patient, uses a public conveyance, to the danger of the other occupants, is there no question of conduct or character? Supposing a person lets lodgings which have just been vacated by a case of infectious disease, without giving information or having them disinfected, is there no question of conduct or character concerned?

Both these acts are contrary to the law of England, is it not immoral to wilfully break the law and to endanger the lives of others?

No case can be made out for treating venereal diseases differently, from a legal point of view, to other infectious diseases, the admitted difficulty of dealing with them only renders strict legislative measures all the more imperative.

The only logical position that could be taken up by these memorialists is, that prostitution should be made illegal, as it is an immoral trade and one dangerous to health and life; this position is however denied to them, and they cannot take it up, because exactly the same arguments could be used against the liquor trade, against "file cutters," "button-makers," "lead-miners," etc., in fact against some fifty different trades, all of which are known to be injurious to the health and to shorten the lives of those employed in them, but all of which it is impracticable to pronounce illegal.

In these cases the law does not stop the trade, but it takes every possible precaution to preserve the health of the workers. No doubt it is very unpleasant for a person carrying on an unhealthy trade, to have his premises inspected, but in the interests of others, the law considers it necessary, and the law must logically apply the same rules to the trade of prostitution.

Another funny argument used by these 79 medical women virtually amounts to this—it is impossible to *stamp out* venereal disease; therefore you should not try to check it. They maintain that "it is practically impossible to say when any woman, who has once been affected with venereal disease, is free from all liklihood of infecting others."

It may be presumed, I think, that French authorities on this subject are quite as well informed as these medical women, and what is their opinion?

Dr. COMMENGE thus states it, in the *Annales d'Hygiene Publique*, January 1898:—

(1) "La Syphilis est rarement engendrée par la prostitution réglementée."

(2) "La Syphilis est présque toujours engendrée par la prostitution clandestine."

These medical women try to make out that soldiers are not properly treated for syphilis. This is utterly untrue, they are treated far more carefully than the same class in civil life; they spend long periods in hospital at the expense and to the loss of the State, which from the necessity of earning their livelihood is impossible for their civil brethren.

Of all the curious things in this memorial, the most curious perhaps, is the assertion, that when a woman is diseased, it is better for those who consort with her that she should be allowed to go free, and not compelled to stay in hospital. But enough, the purity intelligence is on a par with the purity conscience, and both are alike incomprehensible.

Let these medical women open their eyes and see what is beyond dispute, that there is more sexual immorality in every large town in England, than in any cantonment in India, and that the reason there is less disease is simply that prostitution is more general.

Yours &c., A MEDICAL MAN.

———:o:———

MILITARY ASSISTANT SURGEONS' MEMORIAL.

TO THE EDITOR, "INDIAN MEDICAL RECORD"

SIR,—Amid the various amendations to our wretched Memorial of 8 years back, which have of late received currency in your journal, the last certainly "takes the biscuit," and I trust the following comments arising out of it may be accorded a corner in your columns.

To my poor comprehension a memorial, in order to ensure a hearing, should prove itself to be a genuine and unanimous appeal for the redress of actual and pressing grievances under which the memorialists are writhing; and not a "crying after the moon," in the hope of wringing from the authorities some trifling or trivial substitute. Such, we earnestly meant ours to be; and, I venture to say, you, Sir, and our generous supporters believed like-

[illegible] this process of lopping and prun-ing it, tend to give the lie to its unanimity, and the sincerity and genuineness of its individual plaints? Surely it does! And hence, I hold, this policy should be condemned as suicidal. "The memorial in its entirety or nothing" should be nailed to our masthead! If it was genuine in every respect and the most reasonable and modest expression of our most pressing needs, then we can accept nothing less—by degrees and instalments if you will, *i.e.*, if the exigencies of the State compel—but without abatement of one single iota!! On the other hand, were it a sham agitation, devoid of just grounds for complaint, except in a mere fraction of its bulk, then we not only deserve to have got nothing, but the movement should have met with severe reproof from the authorities. That it was the former and not the latter is amply proved by the action of Government in the matter, their comments thereon and recommendations to the Secretary of State in Government despatches.

With what bitterness of spirit then, have we looked on at the wreck of our hopes, and the frantic sacrifices of our own men in the disaster. To use a nautical simile, the successive casting away of spars, masts, and rigging 'till finally we are presented with the appalling spectacle of a clever officer—mayhap despairing of redress for the many, to put the most charitable construction upon his action—calmly and without the least compunction, heaving the sailors overboard, like so many Jonahs, to lighten the unseaworthy hulk that she might bring safely into port, at least the hopes and aspirations of his section of the crew. This policy may be intended to conciliate the powers above—though for the reason stated I doubt its success; but how will it be viewed by his quondam shipmates who form the majority, and on whom the hardships of the voyage pressed most severely? "What care we?" methinks, would hardly be his reply!

I admit one, and only one qualification to my insistence on the memorial in its entirety, and even that is rather in the nature of an appeal to the services at large to renounce a gift we have little reason to be grateful for, than a proposed amendment to our demands. It is on the much vexed question of commissions to subordinates; and coming as it does, after the above comments, it becomes necessary that I should at the outset disown anything in the nature of a spirit of retaliation in advancing my views, for I should be cutting off my nose to spite my own face, and I might be accredited with common sense enough not to be guilty of such folly.

I have long held, and have reason to believe the opinion is fast gaining ground, not only in ours but in all the subordinate services, that the system of granting commissions to subordinates, as at present obtains, is not only a farcical mistake, but a serious wrong from whatever point of view it may be looked at—wrong to the commissioned grades of the army at large, wrong to the individual selected, and wrong to the service of which he may be a distinguished member; and I maintain that it is becoming the burning question of the hour for the unhappy possessors of this distinction with one voice to renounce the hollow sham that it at present is—an incubus indeed!

Space will not permit of my going into details here, on the above points, but in a future paper I hope to do so to justify the reform I advocate. The principle in its inception is a just and equitable one, of granting commissions as rewards for special ability and long and meritorious service, but unfortunately it has aborted, and herein lies the objection.

In a word, my point is, such men should be lifted clean out of the subordinate ranks into the executive services, or let alone, as is, and always has been, done in the army. Then we should have a goal we could look forward to with pride, and one worth striving for. At present it a white elephant.

The argument is clear. If a man is a fit recipient for such distinction, he ought to be able in every way to adapt himself to his new position and be a fit associate for his brother officers, and poor indeed must the service be that could not produce such examples; and per contra, if he is incapable of this, he is not fit for such elevation and should not get it, did his service, perfectly free from official blemish, extend over half a century! Nay, it would be a charity to himself not to make a guy of him and have him ostracised; and would save everybody else, both in and out of his service, many a pang of humiliation.

Yours &c., A FORLORN HOPE.

(We believe every concession will be made by instalments.—ED., I. M. R.)

:o:

BRITISHERS AND THEIR DESCENDANTS

TO THE EDITOR, "INDIAN MEDICAL RECORD.".

SIR,—While India is being so strangely agitated about the Anglo-Indian Cause at the present time, it may serve a useful purpose to give prominence to the following remarks from the *Bengal Times*, whose doughty Editor, Mr. E. C. KEMP, is one of the staunchest friends of the cause.—

"Pride of nationality is one of those self-respecting emotions that sends a thrill of conscious superiority through every heart. *Civis Romanus sum*, embodied a suggestion declaratory of an inalienable, an undeniable right, guaranteeing certain privileges which had prescriptively grown into every Roman citizen's constitution and had solidified with his maturity. For their retention, he would do and dare, he would live or die, and it is noteworthy that, our own laws and constitution, framed after a model enunciated in that 'seven-hilled city's pride' survive to us to-day, in their undeteriorated force and pristine integrity. We do not now refer to that agglomeration of nationalities, we style an Englishman. By pure descent of race and blood, it would be difficult to find any such representative character. A British slander there is, one born in England, *hence*, an Englishman, it is not difficult to meet, but where shall we look for one descended from an unadulterated origin? Pict, Scot, Scandinavian, Flemish, Norman, Saxon, Dane—all have contributed to produce this being, who, with a natural pride of race and nationality, styles himself what he demonstrably is *not*—an Englishman! Yet, anomalous as it may seem, he who combines in himself so many races, is apt to look down with seeming contempt, upon his brother's son, with a *soupçon* of Oriental parentage in his composition, and to deride him as an inferior—an offshoot from his own pure (?) proud stock! And not only is this absurd exclusiveness manifested in his bearing towards his kinsman, but he must needs invent a designation for him, to widen

still further a partition gulf having its origin in silly sentiment. His brother's son is not an Englishman—that is a title reserved for himself and such as he, a national composite culminating in racial satire—but a *Eurasian*, a nondescript called into official entity by a caprice. Dr. WALLACE has recently described this operation with cutting sarcasm :—

"Some years ago, a member of the Bengal Secretariat thought he would coin some epithet for the new race of British descendants in India, who were fast becoming a power in the land; so he thought the word 'Eurasian' would suit, and it was launched in the classical nomenclature of State documents as the name and title of this new race. But its deep and insidious sting was ever felt as a stigma and a curse by the men and women and children who were henceforth to rally round this hybrid standard. This name, once accepted, was intended to alienate the honored designation of 'Britisher,' and the process of isolation, ostracism and degradation would in time have been rendered complete."

Years flowed on, and this objectionable and offensive term continued to be applied, not only to those of combined race, who showed perceptibly their Asiatic origin, but it had begun to extend itself to all born and reared in India, in whom a tinge of Oriental admixture was scarcely perceptible. But a day of retribution was at hand. Working themselves into positions of trust and emolument, these so-called 'Eurasians' fairly demonstrated to Government that however meek and lowly minded, however unassuming and non-combatant in asserting their claims to State preferment, they had made themselves absolutely necessary to their employers, since there was not a department under Government in which their services could be dispensed with, in any circumstances, without creating inextricable confusion; and as heads of departments felt how indispensable they had become, a few occasional sops were ungraciously cast to them and a few thinly veneered office memos, compensated them for work their superiors in office could not undertake without their active and zealous co-operation. Dr. WALLACE, in his very able address, thus continues to trace their progress —

"Finding that the term 'Eurasian' was not sufficient to politically emasculate our people, another official cynic conceived the idea that the 'Domiciled British Community' should be induced to accept the designation of 'Statutory Natives of India,' under the seductive inducement that, with the acceptation of this classification of our people, they should lose nothing but rather gain the right of admission to the 'Statutory Civil Service,' which was about to be inaugurated for the sole benefit of 'Natives of India.' The so-called 'Statutory Civil Service' turned out to be one of the biggest shams of the Victorian era."

Doubtless, there was a certain unworthy ingenuity of conception enfolded in this partition of exclusiveness. Covenanted men, who ruled public departments, bethought them that their own sons, nephews, cousins and a host of young enterprising spirits were preparing at home for life's battle, and where could that battle be better fought than on 'India's coral strand'? These men had dreamed dreams which did not need any Joseph to interpret them. They felt that they had claims of kindred pressing upon them, and since he is worse than an infidel who provideth not for those of his own household, they resolved such a reproach should not attach to them. In these circumstances, distinctions of class, race, education, &c., were brought to bear as levers of exclusiveness for Brahmins, and of disability for their Indian-born and Indian-educated cousins. Besides, India with its strict caste exclusiveness, had centuries before prescribed hereditary succession, not in ancestral property alone, but in avocation. In London we had a Court of Directors, an India Office and a shoal of young men but awaiting an opportunity to be shovelled out to India for installation into office then held by their patrician seniors, as warming pans, but destined at no distant date to lapse to younger energy and more vigorous enterprise. Nominations were not difficult to procure, and examinations in those 'good old days' usually limited themselves to tender enquiries as to latest family advices from India—a simple and satisfactory method of conferring qualification, which was not without its advantages. It was demonstrably less vexatious than vulgarly persistent questions in mixed mathematics, natural science, history and those other prosy subjects which irritate our young Civil Service lions into lashing their tails at Civil Service Commissioners."

Yours &c., SCOTIA.

:o:

MILITARY RANK FOR ARMY SURGEONS. SOME SCOTCH OPINIONS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The two appended letters from that well-known Edinburgh paper, *The Scotsman*, bearing on Military titles and rank for Army Surgeons will no doubt interest your readers :—

I.

Your correspondents all seem to overlook the main point of the dilemma in which the War Office authorities are placed by the refusal of well-educated young medical men to join the Army Medical Department. The question now is, not whether the army doctors are silly or unreasonable in their demands—they may be so, and in my opinion they are so—but the Army Medical Department is an absolutely essential and vitally important branch of the army, and must be kept complete and up to the mark if we are to have a well-equipped army at all.

If your correspondent "Observer" really wishes to afford any assistance to the authorities, he would discontinue his silly and useless sneers at the demands of the army surgeons, and would endeavour, if possible, to suggest some way out of the present serious impasse, instead of merely trying to show off his acquaintance with JOHN STUART MILL and his system of logic, of which it is to be hoped he knows a little more than he does of the Army Medical Department. The real cause of the present unpopularity of the Army Medical Service is the abolition of the regimental system, and nothing else whatever. As long as that system was in force, the medical officer shared in whatever prestige attached to his regiment. He belonged to it, was part and parcel of it, and looked on it as his home. Since the regimental system was done away with, the popularity of the Army Medical Service has steadily deteriorated, and the men who now join it come from a lower social stratum, and possess markedly inferior professional attainments.

When I joined the service at the time of the Indian Mutiny, we were called Assistant Surgeons and ranked merely as Lieutenants, and never hankered after military titles or any bosh of the sort. Both pay and pension were much smaller than they are at present; but notwithstanding this, the service was sufficiently attractive to highly educated young medical men of good social standing.

Among the twelve or thirteen men whom I more particularly remember as joining the service at the same time as I did, almost all were M.D.'s, of Edinburgh University. Several, like myself, were members of good Scottish county

families, while all the others were either the sons of military officers of position or of clergymen or professional men of well-established standing.

Men of this class do not join the service now-a-days, and as for an M.D. of Edinburgh University, I doubt very much whether there is a single one in the whole of the British army. I consider the demands made by Dr. FARQUHARSON's deputation last week as puerile and absurd. Nothing will restore the prestige and popularity of the Army Medical Service except the restoration of the regimental system. The usual reply is that it broke down utterly during the Crimean War. But I should like to know what department did not break down utterly during that disastrous war.

TWENTY-FOUR YEARS' SERVICE.

II.

If not too late before a great mischief (perhaps difficult to repair) is done, will you permit a few lines on the other side of an argument for which the pros are so glibly and often, so misleadingly stated, by the advocates of pure military rank for army doctors.

It is perfectly true that candidates are not forthcoming; true also that the Army Medical Staff has fallen very low in military esteem; and that in military clubs and socially the present representatives of the noble and gentle art of healing are by no means heartily received or cordially welcomed.

Will they be more so if dubbed Colonel, Captain, General and what not?

Obviously, the animus against them will be all the greater and more general, believing, as officers do, that a fit of militarism has already weaned a large number of the doctors from study of their own most worthy profession to seek after the gew-gaws and shallow fripperies of a soldier's life and surroundings, to the manifest deterioration of both their own professional skill and of the estimation which they can only earn by being devoted surgeons and physicians, and by taking a pride in being known as such, without seeking to masquerade under false colors.

So deep would be the disgust of the army if doctors were dubbed Captains, &c, pure and simple, that it is more than probable that officers would cease to use these titles, certainly in social intercourse they would drop them.

The profession of soldier and of physician or surgeon are as wide apart as the poles, and require absolutely opposite qualities, manners, and behaviour.

No soldier denies that the highest courage is required from, and shown by, the military surgeon, and in classing him as a non-combatant there is no imputation on him that he does not more than share many of the risks and perils incidental to a soldier's life. The chaplain and the priest do the same, and as an old ranker said to me, I look on a doctor as next door to a priest.

Where the combatant officer should be somewhat fierce and sharp in manner, the doctor must be gentle; where one is better employed learning the trade of arms, the other should be studious; where one may safely air his ideas and thoughts in the freedom of the mess, the other should hold his tongue as to the whole of his professional work.

In all professional aptitude the doctor in the army has greatly deteriorated since he commenced to ape another profession, until it is now extremely rare for an officer to trust himself to one of them for the slightest treatment if any respectable civil practitioner is available. Socially the medical profession in the army has become intensely unpopular, and I have seen letters from surgeons written to claim invitations to entertainments as a right, when these have not been voluntarily offered! The attempt to scale the heights of social popularity by force and Royal Warrant is now being made, though Lord HARTINGTON expressly stated, sensibly enough, that this could not be secured by any possible ukase when he was pestered on the point as Minister of War.

The road to higher consideration and more appreciative treatment is in quite the opposite direction to that which the doctors are now taking, and their course, even if facilitated, can only land them in a deeper slough than that they now occupy.

It is somewhat remarkable that in the sister service of the navy, where the necessity of maintaining a constant and strict discipline cannot be shirked, there has been no demand for doctors to be called admirals and comodores. The reason is, of course, obvious; that not for one moment in the navy could the whole and sole command of the captain over every department within his ship be questioned.

In the army the importance of command is not so obvious in peace time, but it becomes so in war, and the functions of command are as necessary to the young Lieutenant in charge of a detachment as they are to the General of division.

In no case could they be shared with the doctors.

If this proposition be true, the attempt is merely being made to obtain a fictitious and nominal rank for purposes of display

This will gain the doctors no increased consideration, and the pursuit of this object will further wean them from their professional duties and the respect that the conscientious and devoted discharge of duty invariably brings, and to no one more than the good army surgeon.

There is a ludicrous side to this distressing subject, which was well brought out by the late Sir GEORGE CHESNEY, a past master of the art of policy, both military and civil. Relating how NAPOLEON would not allow even the rank of Lieutenant-Colonel, lest the dignity of real Colonel—the commander of a regiment—should be infringed, and how that great leader refused to acknowledge a regiment without its colors and its Colonel, even sending one corps back to retrieve its dead Colonel from a village whence it had been driven, Sir GEORGE passed to the question, "Where is your Colonel?" If it had been asked in our own service, answering it humourously enough, "The Colonel is making a poultice——"

Doctors claim that we have long fallen away from so high an ideal, and this is true, but two wrongs do not make a right, and if discipline has been already injured by some rude shocks to military pride and the cheapening of rank, surely this is in itself no reason why a deadlier blow still should be dealt, and such the proposal, paltered with by Lord LANSDOWNE, would undoubtedly be.

Yours &c., Y.

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BOGUS INDIAN PRACTITIONERS: KABIRAJES AND THEIR FRAUDS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Two kinds of deception have now become most prevalent in India. One is deception in religion and the other is deception in medicine. As many cunning religious preachers make fortunes by their *gairic* dress, deceitful practices and eloquent lectures; so many uneducated *kabirajes* fill their purse by self-styled titles, fraudulent advertisements and spurious medicines. I am a friend of our *Aryan Ayurdic* system of treatment on scientific principles, and I honor its true votaries, but I hate those *kabi-*

and deceive the public.

Now let us consider the education and fame of these kabirajes. Do they really go through any system of education, and do they pass any examination? Surely no. Most of them in their student-life remain in the houses of some respectable kabirajes, their pupils and compounders. This is the only qualification of a kabiraj now. And see from what class these students are recruited. Not generally from the intelligent and successful, but from the dull and unsuccessful students, who have failed to shine in other spheres of life, and who wish to get an easy push in this world. The high sounding titles which they put after their names are almost all self-styled, and not acquired by passing any examination.

Secondly, let us consider the nature of their medicines. One of the most fortunate kabirajes of Calcutta most extensively uses the allopathic medicines, with *kabirajes* names only. I know the kabirajes, who are loudest to decry the use of quinine by their advertisements, describing it as a deadly poison, are the most forward to use it under a disguised kabirajes name. These unscrupulous kabirajes, who warn the public not to use quinine, the great redeemer of India from malarial poison, in any disease; but who themselves at the same time use it extensively with a false *kabirajes* name, are greatest enemies of our country. The public should know well that, but for quinine, India would have been a great dessert. Alas! Our best friend has been described by these selfish kabirajes as our worst foe. Now we see how genuine is the nature of their medicines! I know that now it has become a gentlemanly fashion to make money by deceiving the ignorant public by lectures and advertisements. But deception in medicine is surely criminal, or it ought to be so. I ask you, Sir, is there no remedy to put a stop to such fraud on the part of the kabirajes?

Yours &c., HARA KALI SEN, C.M.S.

RAIGANJ, *25th April 1898.*

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HIGHLY PLACED ANGLO-INDIANS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Here are a few more names for our record of successful and well-placed Anglo-Indians. My lists are confined to men trained in India:—

1. W. B. Hamilton, Presidency Magistrate, Bombay.
2. S. A. Kyte, Deputy Collector, Poona (Retired List), now Police Commissioner, Baroda State.
3. William Ashby Ingle, Senior Deputy Collector, Sind Commission, Cantonment Magistrate, Quetta, &c., (Retired List), now Municipal Secretary, Sukkur.
4. Arthur Henry Plunkett, C.I.E., City Magistrate, Poona, President of the Municipality (just retired.)
5. E. H. Hearn, Superintendent, Deccan Revenue Survey, Poona.
6. William Almon, Assistant Collector, Abkari, Bombay.
7. William Bedford, Chief Superintendent, Accountant General, Bombay.
8. Walter Quanbrough, Manager and Director, Agra Bank, London.
9. M. T. Carroll, Manager, Messrs. William Watson and Co., Bombay.
10. H. Howard, Superintendent of Police, Bombay.
11. H. J. Drewin, Superintendent of Police, Bombay.
12. Patrick Ryan, Barrister-at-Law, Assistant Secretary to Government, Bombay, Presidency Magistrate, Bombay, &c.
13. Nathaniel Spencer, Judge, Small Cause Court, Bombay.
14. Charles Levett Yeates, Assistant Secretary to Government, Bombay.
15. J. Boyce, Superintending Engineer, Punjab, Government Flotilla, Sukkur.
16. Charles Gilder, (Rev.) Chaplain, Candy's Church and Indo-British School, Bombay.

Yours &c., W. H. T.

KARACHI, *15th April 1898.*

(Bombay is publishing a formidable list of "men who have built the Empire." Will other informants add to our store of knowledge?—ED., I. M. R.)

:o:

HOW TO SUCCEED WITH A PHARMACY BUSINESS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—In your last number you published a letter re chemist's shops in India. Perhaps those interested in this line will find the following maxims of great benefit. They are extracted from the *Montreal Pharmaceutical Journal*:—

"If you see a customer enter, turn your back and look at some bottles on the shelf. It has an air of sociability.

Always have the floor of your store mopped up in the busy time of the day. It impresses the customer with the idea that you value cleanliness. The same rule would also apply to your windows.

If a lady asks for a postage-stamp, exclaim, "Don't you see that I am busy!" If the directory is wanted, shout, "Couldn't you see it when you came in?" Perhaps she doesn't feel humble enough already at asking the favor of you, and these little pleasantries will put her in the proper mood.

Distribute two or three cats over the store. It makes fun when a customer brings in a dog.

If a lady asks about perfumes, take an atomiser and spray some in her eyes. When she sees how lavish you are with it she will appreciate its value.

Never put up a prescription in less than half an hour after you receive it. You are the best judge of its urgency.

Never change the contents of your showcases. Customers who have been coming in for several years might miss sight of old friends.

If you are selling tooth-brushes, always rub them across your hand or sleeve to show how pliable the bristles are. It enhances the value to the buyer.

Carry out these rules for six months, then apply for an increase of salary."

Yours, &c., D. O. C.

:o:

THE C. D. ACTS IN INDIA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—In your last issue (16th April) there is a long letter by one who arrogates to himself the high-falutting title—"A Hater of Frauds." If he will kindly come out of the gloom in which he has enveloped his identity, I will try to dispel the moral gloom in which he lives. I

suppose like scores of created beings such as owls, there are those who will call light darkness, and darkness light, and whose moral strabismus is so chronic that it becomes past operation.

If he had even read past numbers of the *Record*, he would have been a little less burlesque and extravagant.

It is so easy to write oneself down "A Hater of Frauds." I suppose he includes Dr. BLACKWELL'S name in the list of frauds. Why, my dear Editor, the whole history of the Government Prostitution Regulations is interwoven with attempts at fraud. From dear old Lord ROBERTS, who had to eat his words when he posed as innocent ignorance before the Commission, to the proved disobeying of orders from 1889 to 1893; and with the present unholy attempt to bring them back by throwing the dust of pious intentions in the eyes of outsiders, and doing away with the name of "Lock" Hospital, substituting for it the vague term "Cantonment," there has been a deal of "fraud" somewhere of which Dr. BLACKWELL has had no share. Has "the Hater of Frauds" had any? Perhaps our Editor might publish Dr. B's. article and let it speak for itself.

Yours &c., WM. HUNTLY, M.A., M.D.

NUSSEERABAD, *26th April 1898*.

:o:

BURDENSOME DUTIES AND ILLEGAL ORDERS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Perhaps it is as well you should know the following as one of the irregularities going on in the Station Hospital, Deolali. I send you this to comment on and publish if you think proper or not.

Recently an order was issued by the S. M. O. here that "Soldiers admitted into hospital should hand over all valuables belonging to them to the Assistant Surgeon in charge and he was to forward the same to the depôt Adjutant for safe custody' This order arose from the Assistant Surgeon objecting to hold himself responsible for losses, as he was not provided with any means of securing the valuables On the first occasion arising, the money, &c, was taken over and a trustworthy A. H. corps ward attendant was despatched to the orderly-room to hand over the money, &c., but the authorities there ordered that for the future an Assistant Surgeon was to carry out this work and hitherto it has been done but with a good deal of reluctance, yet none of these Warrant Officers have openly protested against being made to go over each time a patient desired to have his money, &c., put into safe custody. Furthermore when the man was leaving hospital a W. M. O. received it personally from the depôt Sergeant-Major and bringing it to the hospital handed it over to the patient. It is a well known fact that the staff of the hospital is far below that authorised number, and during the trooping season is actually overworked, also in the non-trooping season there is as much work as they are able to get through, and in addition to this to have a duty of such a nature thrown upon them when it could be easily trusted to a ward servant or dooly bearer, how often do we know of over a thousand rupees being entrusted to these men and very seldom have they failed to do it to the entire satisfaction of their superiors. I leave it to you to treat this subject as you think best.

Yours &c., JUSTICE.

A SUCCESSFUL LADY DOCTOR.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The *Baluchistan Gazette* of 9th April 1898 says:—"At her recent examination in Persian by the Lower Standard, Miss STOTESBURY, L.M.S., (Lady Dufferin Fund) has, we believe, passed well, and we congratulate her accordingly. We take this opportunity of also complimenting Miss STOTESBURY on the success she has attained in her profession and her increasing popularity in this town. We believe she was the means lately, under Providence, of saving the life of the daughter of our respected townsman, Mr. WASUDEO MUDLIAR, Treasury Head Accountant, who was attacked with that fell disease in Quetta, pneumonia; and we hear nothing but praise of Doctor Miss STOTESBURY on all sides."

You will be glad to give this a little corner in the *Record*. It does the girl credit for the manner in which she has tackled the Pushto and Persian examinations. And yet they say Anglo-Indians are not worth anything? Have any of the largely paid English lady doctors imported into the country on salaries twice as high as that given to our girls, ever attempted anything of the kind in India, to master the language of the people among whom they are put to work?

Miss STOTESBURY, it might be mentioned, a few months ago, passed successfully first the lower and then the higher examinations in Pushto. She is probably the first woman who has ever passed in this language.

Yours &c., ANGLO-INDIAN.

:o:

THERAPEUTICS OF PHULWA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—I send this note in reply to Dr. MACLEOD'S query in your paper of the 15th April.

Phulwa is a concrete oil expressed from the seeds of the Indian butter tree (Bassia Butyracea N. O Sapotaceæ), the tree is called in the Kumaoni language, where it principally grows, *chyúrá* tree, the fruit exactly resembles loquat. The ripe pericarp is sweet and from its juice a kind of gur is manufactured, from the seed oil is expressed which, on solidifying, looks like tallow and is called *phulwa*.

As an article of diet, it is used by the poorer classes in place of "*Tal*," oil, and by unscrupulous "ghee" venders as an adulterant of ghee. Medicinally it is not much used but is highly valued for its physical properties as a lubricant and emolient. In fact it is the hill man's substitute for glycerine or lanoline in the treatment of chapped hands, feet and face—a condition which is so common in winter.

I have used it as a basis for suppositories and soluble bougies, and also mixed with sweet oil, as a basis for various ointments.

I do not think there is much difference between cacao butter and phulwa.

Yours &c., H. D. PANT, L.M.S.,
Assistant Surgeon.

GONDA, *23rd February 1898*.

ANGLO-INDIANS AS MISSIONARIES.

To the Editor, "Indian Medical [illegible]

Sir,—I do not intend at present to publish the long list of successful Anglo-Indian missionaries of this land, but I desire to have a record made of the work of two missionary women of high repute. Here's what the *Bombay Guardian* says :—

"The Methodist Episcopal Church has honorably interested herself in the spiritual welfare of the Anglo-Indian and country-born European population of this land, and from this community have come many of her noblest workers, both men and women. Of this latter, one in North India, and one in the South, have been conspicuous for years in successful spiritual work, *i. e.*, Miss Winnie Rowe, of Lucknow, and Miss Grace Stephens, of Madras.

The Christian community of India will be genuinely grieved to hear of the death of the former."

Yours &c., A Medical Woman.

THE PLAGUE IN CALCUTTA.

As we go to Press, we have received the official announcement that the Bengal Government has pronounced Plague to be in existence in Calcutta. The announcement was made at noon on the 29th April, and is based upon the bacteriological opinion of Mr. Haffkine, to whom the blood of one of the suspected cases was sent for examination, and which Mr. Haffkine declares contains the specific plague bacillus. This opinion is further supported by the statement of a few official medical officers. Orders have been issued by Government for house-to-house visitation, segregation and inoculation. Up to the present time nine fatal cases are reported. A panic has been caused and a tremendous exodus of natives has commenced.

Book Reviews & Medical Trade Notices.

ELEMENTS OF LATIN FOR STUDENTS OF MEDICINE AND PHARMACY.

By George D Crothers, A.M., M.D.,

Teacher of Latin and Greek in the St. Joseph (Mo) High School; formerly Professor of Latin and Greek in the University of Omaha.

and

Hiram H. Bice, A.M.,

Instructor in Latin and Greek in the Boys' High School of New York City.

(Publishers. The F. A. Davis Co. Philadelphia Pages 128, 24s.)

A very clear and simple exposition of the use of the Latin language in medicine is contained within the covers of the little volume before us. A vocabulary and general index are appended, and, while exercises and glossaries of medical and anatomical words are included, the art of prescription-writing is fully explained. Altogether the work is an exceedingly handy one, for medical men, it is well known, are not always over careful as regards their treatment of Latin.

[illegible] AND SANITY [illegible]

By Dr. Rosario Gerbury,

Director and Principal Visiting Surgeon of the Rudolfsserbeau, Vienna.

Translated with the permission of the Author.

By A. S. Lawrence.

With a Preface by D. J. Leech, M.D., F.R.C.S. Lond., &c.,

Professor of Pharmacology in the Owens College and Victoria University.

(Publishers : John Wright and Co., Bristol. Price 2s.)

This excellent little book, dealing, as it does, with various ethical subjects, will be found of equal value to both physicians and their patients. We recommend to both these classes the careful study of the author's valuable observations of such points as Gossip; Harmful Influence of Persons surrounding the Patient; Corruption of Doctors by the Public; and Medical Aid Societies and their medical officers. Dr. Gerbury seems hopeful that when a new generation arises, the evils complained of will doubtless right themselves, but it will of course be a question of time.

Books in our office awaiting review :—

Webster : Diseases of Women.
Waring · Operative Surgery.
Butler-Smithe Ovariotomy.
Sacore : Diseases of Women.
Pasani : Relapsing Fever.
Hughes : Malta Fever :
Walter : Practical Physiology.
Macleod Yearsley Diseases of Ear.
Monson . Cardiac Failure.
Pandian : Indian Village Folk.
Crothers and Bice : Medical Latin.
Corwin : Physical Diagnosis.
Brindley James : Rheumatism.
Gribble and Patrick Hehir : Outlines of Medical Jurisprudence for India.

BEEF-TEA TABULES.

Messrs. Brand & Co., of 74, South Lambeth Road, have sent us some samples of "Beef-tea Tabules" for examination. We find that the tabules consist of a well-prepared meat extract containing meat fibre and some wheat flour and dried in the form of cakes. The tabules contain only 5·3 per cent. of moisture, and were found to be free from chemical preservatives, as claimed by the manufacturers The retail price of each tabule is 1½d., and one is stated to be sufficient to make a breakfast cup of "beef-tea."

LACTOPEPTINE.

Nothing but complete satisfaction and possibly result from the administration of Richard's Lactopeptine which, in regard to its ingredients, is little more or less than a valuable combination of all the best known digestive agents. After a trial of twenty-one years, this up-to-date medicine maintains its place in popular favor in cases of Heartburn, Dyspepsia, Infantile Cholera, and wasting diseases. It is pleasant and handy to take, especially in its form of 5 grs. tablets. We can confidently recommend it to the medical profession generally. Order from John M. Richards, 164, Holborn, Viaduct, London, E.C. Calcutta Agents, Messrs. Gallagher & Co.

[illegible]

GOVERNMENT OF INDIA.

[illegible]—Surgn.-Lieut.-Cols. [illegible], Craythorne Hall, [illegible] Bodley, and [illegible] Young to be [illegible]-Lieut.-Cols., 1st Oct. [illegible].

Surgn.-Lieuts. Charles John Miles, Algernon Francis [illegible] Henry Bensley, Francis Hammond Watling, Arthur [illegible], Edgar John [illegible], William [illegible], John Archibald Hamilton, to be Surgn.-Capts.

[illegible]—Surgn.-Lieuts. Frank Watling, and Charles Montague [illegible] to be Surgn.-Capts.

Bombay [illegible]—Surgn.-Lieuts. Samuel Evans and James [illegible] Mc Donald to be Surgn.-Capts.

[illegible]-Lieut.-Col. Sir George King, K.C.I.E., I.M.S., [illegible], retired from the service, [illegible] Feby. 1898.

Surgn.-Capt. Gilbert Capel Hall, Half-Pay List, I.M.S., Madras, retired from the service, 12th March 1898.

The undermentioned medical officers have been permitted to retire from the service.

Brig.-Surgn.-Lieut.-Col. Sir Alfred Swaine Lethbridge, M.D., K.C.S.I., I.M.S., 1st April 1898.

Surgn.-Lieut.-Col. James Moorhead, M.D., I.M.S., Civil Surgeon, Bengal, 20th May 1898.

The services of the undermentioned officers are replaced at the disposal of the Govt. of Bengal:—

Surgn.-Major T. Grainger, M.D., I.M.S.
Surgn.-Capt. E. H. Brown, I.M.S. (Bengal).
Surgn.-Capt. C. R. M. Green, F.R.C.S., I.M.S.
Surgn.-Capt. D. M. Moir, M.B., C.M., I.M.S.
Surgn.-Capt. C. R. Stevens, M.D., F.R.C.S., I.M.S.

The services of Surgn.-Major J. A. Cunningham, M.D., M.CH., I.M.S. are replaced at the disposal of the Govt. of the Panjab.

The services of Surgn.-Major R. Pemberton, I.M.S. (Madras), are replaced at the disposal of the Govt. of Madras.

Surgn.-Col. T. H. Hendley, C.I.E., I.M.S. (Bengal), to be Inspr.-Genl. of Civil Hospls., Bengal, from 9th April 1898.

The services of Surgn.-Major C. M. Thompson, M.B., I.M.S. (Madras), are replaced at the disposal of the Govt. of Madras.

The services of Surgn.-Major Kavasji Cursetji Sanjana, I.M.S. (Madras), are replaced at the disposal of the Govt. of Madras.

BENGAL GOVERNMENT.

Surgn.-Capt. R. Bird, Rest. Med. Officer, Med. Coll. Hosp. and Offg. Prof. of Physiology, Med. Coll., Calcutta, is allowed, privilege leave for three months, 21st April 1898.

Asst. Surgn. Chuni Lal Das, Gaya Pilgrim Hosp., held charge civil station of Gaya from 24th March 1898.

Surgn.-Major J. B. Gibbons, Supdt., Campbell Med. School, and Hosp., Sealdah leave for three months, from 25th April 1898.

Mr. E. R. Gardiner, Under-Secy. to the Govt. of Bengal, P. W. D., to be Secy. to the Plague Commission, Bengal.

The Lieut.-Govr. is pleased to appoint the following gentlemen to be members of the Plague Commission, Bengal:—

Surgn.-Major R. H. Charles, vice Surgn.-Lieut.-Col. J. Lewtas.

Surgn.-Capt. H. W. Pilgrim, vice Surgn.-Major A. W. D. Leahy.

Surgn. Lieut.-Col. R. D. Murray, Brig.-Surgn. Col. J. O'Brien.

Surgn.-Lieut. R. P. Wilson made over charge Ranchi Jail to Surgn. Lieut.-Col. F. R. Swaine, 9th April 1898.

Asst. Surgn. P. Fitzpatrick, Med. Officer at the Sandheads, privilege leave for one month and 22 days, from 15th April 1897.

Asst. Surgn. P. Fitzpatrick, Med. Officer, Sandheads, leave for one day.

Asst. Surgn. H. G. C. Mills acted as Med. Officer Sandheads from 30th April to 6th June 1897.

Asst. Surgn. H. G. C. Mills did duty Presy. Genl. Hosp. from 10th to 20th June 1897.

Asst. Surgn. [illegible] Chunder Dutt made over charge Darbhanga Jail to Surgn.-Capt. C. R. M. [illegible], 15th April 1898.

Asst. Surgn. [illegible] Nath [illegible] made over charge [illegible] Jail [illegible], [illegible] April 1898.

[illegible], Teacher of [illegible] Medica and Pharmacy, Dacca Medl. School, leave for twenty-five days.

Asst. Surgn. [illegible] Chandra [illegible] Surgn. [illegible] Ward, Med. Coll. [illegible] March to 4th April 1898.

Asst. Surgn. Chuni Lal [illegible] to [illegible] duty, Med. Coll. Hosp., Calcutta, from 11th April 1898.

PUNJAB GOVERNMENT.

Asst. Surgn. Illahi Bakhsh to Jullundur dist. on special plague duty, from 13th April 1898.

Asst. Surgn. Rai Sahib Bhagwan Das [illegible] charge Jullundur Civil Hosp., 15th Feby. 1898.

Hosp. Asst. Ganpat Rai, on special plague duty, Jullundur, and Hoshiarpur dist., from 4th Nov. 1897.

Hosp. Asst. Sher Baz to [illegible] Dispy., [illegible] dist., 5th April 1898.

Asst. Surgn. Hamand Das, [illegible], to [illegible], here he assumed charge of the Dispy. [illegible] March 1898.

Hosp. Asst. Goverdhan Das to [illegible] Dispy., Rawalpindi dist., from 5th April 1898.

Hosp. Asst. Abdul Hamid, [illegible] Dispy., Hissar dist., three months' privilege leave, 5th April 1898.

Hosp. Asst. Maha Narain, doing general duty at Ludhiana, to Hoshiarpur, from 4th April 1898.

Hosp. Asst. Umar-ud-din, doing general duty at Hoshiarpur, to Garhshankar Tahsil, for special plague duty, 4th April 1898.

The leave granted to Hosp. Asst. Ghulam Kadir from 31st Oct. 1897 is extended up to 1st April 1898.

Asst. Surgn. Nand Lal Udawat, doing general duty Mayo Hosp., Lahore, was placed on special plague duty at the inspection post at Beas, from 3rd April 1898.

Hosp. Asst. Abbas Ali Shah was placed on general duty at Peshawar, 16th March 1898.

Hosp. Asst. Abbas Ali Shah, doing general duty at Peshawar, four months' leave from 30th March 1898.

Hosp. Asst. Girdhari Lal, doing general duty Mayo Hosp., Lahore, and Lodhram Pilgrim [illegible] special plague duty Jullundur dist., from 2nd April 1898.

The services of Hosp. Asst. Ganpat Rai being no longer required in the Mily. Dept., he reported his arrival to the Civil Surgn., Simla, 6th April 1898, for special plague duty.

Hosp. Asst. Amir Khan was placed on special plague duty, Simla, from 2nd April 1898.

CENTRAL PROVINCES GOVERNMENT.

Medical pupil Vithal Raghoba Landay, Banda Branch Dispy., Saugor dist., held charge Banda Poor-House, from 4th Sept. to 10th Dec. 1897.

Hosp. Asst. Ujagar Parshad to Chhindwara Poor-house, from 1st Nov. 1897 to 31st Jany. 1898.

Hosp. Asst. Sobharam, Birman Fair, was relieved of his duties there 22nd Jany. 1898.

Hosp. Asst. Khalil-ur-Rahman, Mandla Poor-house, to Dindori Branch Dispy.

Hosp. Asst. Inayat Husain, Dindori Branch Dispy., to do duty under Civil Surgn. Hoshangabad.

Hosp. Asst. Inyat Husain to the Jail and Police Hosp. Hoshangabad.

Hosp. Asst. Hashmat Ali, Seoni Poor-house, was deputed on special duty Chhapara Cattle Fair.

Hosp. Asst. Hashmat Ali to do duty under Civil Surgn. Seoni.

Hosp. Asst. Hashmat Ali to do duty under Civil Surgn. Nagpur.

Hosp. Asst. Ramchandra Sitaram to do plague duty at the Indora Segregation Camp from 5th current.

Hosp. Asst. Hashmat Ali, Hinganghat Branch Dispy., to Wardha dist.

Hosp. Asst. Mohan Lal, Hinganghat Branch Dispy., three months' privilege leave.

The services of Hosp. Asst. Saiyid Husain are placed at the disposal of the P. W. D. for famine duty, Balaghat dist.

Hosp. Asst. Bhondu Lal, Lalitpur Poor-house, Saugor, from 3rd July 1896 to 5th Feb. 1897, and [illegible] duty under Civil Surgn. of Saugor from 9th Feby. to 31st March 1897.

N.-W. P. AND OUDH GOVERNMENT.

Asst. Surgn. Mohini Chunder Chakravarti, Rae Bahadur, Thomason Hospl. and Lecturer on Medicine, Med. School, Agra, privilege leave for three months from 4th May 1898.

Asst. Surgn. Charan Sing, Sadr Dispy, Meerut, privilege leave for three months.

Hosp. Asst. Suleman Khan, City Branch Dispy, Meerut, to hold charge Sadr Dispy., Meerut.

Asst. Surgn Bishamber Sahai, from plague duty, Hardwar, to that at Saharanpur Ry, Stn.

Asst. Surgn. Bankin Chander Sanyal, from plague duty, Hardwar, to that at Ghaziabad Ry, Stn.

Asst. Surgn, Chanan Singh, from plague duty, Saharanpur, to that at Hardwar.

Asst. Surgn. Hari Ram, from plague duty, Ghaziabad, to that at Hardwar

Asst. Surgn. Baldeo Singh to do plague duty at Bareilly, from 12th March 1898.

Asst. Surgn. Ghulam Mustafa, from plague duty, Aligarh, to that at Hardwar, Saharanpur dist.

BURMA GOVERNMENT.

Hosp. Asst. H. C. Bannerjee assumed charge Civil Hosp., Ma-ubin, Thongwa dist., 27th March 1898.

Hosp Asst. H C. Bannerjee assumed charge Jail Hosp., Ma-ubin, 27th March 1898

Hosp. Asst. Karim Khan assumed charge of a portion of the Pyuntaza section. 22nd March 1898.

Hosp. Asst., Syed Nur Ali assumed charge of a portion of the Pyuntaza section, 24th March 1898.

Hosp. Asst., Peter Aquah assumed charge Civil Dispy., Pyuntaza, Pegu dist., 25th March 1898.

Hosp. Asst. G. C. Chuckerbutty assumed charge of duties with the F. W. Dept, Pegu div., 26th March 1898.

Hosp. Asst. Krishna Gir assumed charge Lock-up, Kyaukse, 16th Feby, 1898.

Hosp. Asst. F. A. Joycela Rao assumed charge Police Hosp. Bhamo, 12th Feby, 1898.

Hosp. Asst. Abdul Khader, six months' leave from 7th March 1898.

Hosp. Asst F. A Joycela Rao assumed charge of his duties with the Reinforcing Party, Military Police, at Bhamo, 26th Feby, 1898.

Hosp. Asst. Bishen Lal assumed charge Police Hosp., Sadon, Myitkyina dist, 18th March 1898

Hosp Asst. Bishen Lal assumed charge Civil Hosp., Sadon, Myitkyina dist., 18th March 1898.

Hosp Asst Behari Lal assumed charge Central Jail, Rangoon, 2nd April 1898.

Hosp. Asst. Jeet Singh assumed charge Police Hosp., Myitkyina, 24th March 1898.

Hosp. Asst Rattan Chand assumed charge Outpost Hosp., Namkhan, Bhamo dist., 29th March 1898.

G. O. C C.

Hosp. Asst Muhammad Kasim qualified himself for promotion to the next higher grade, 1st Oct. 1897, and is entitled to the pay of the same

Hosp Asst. Rustam Ali and Dare Khan qualified themselves for promotion to the next higher grade, 15th April 1897, and are entitled to the pay of the same.

Med. student M. Kuppuswami Pillai has been admitted into the service as Sub-Hosp Asst. from 17th July 1897.

ASSAM GOVERNMENT.

Babu Brajendra Mohan Goswami, a passed student of the Temple Med. School at Patna, is apptd. a Civil Hosp Asst. in Assam and posted to Guahati for duty as a supy., from 2nd April 1898.

Privilege leave of absence for one month is granted to Hosp. Asst Durga Gati De, in med. charge Kokilamukh coolie depot, Sibsagar dist., from 3rd April 1898

Hosp Asst. Mahamad Tahir, a supy. Nowgong dist, to Sibsagar dist. to Kokilamukh coolie depot, from 3rd April 1898.

Privilege leave of absence for three months is granted to Hosp Asst. Amir Uddin Ahmed, Dafla Dispy., Garo Hills dist., from 7th April 1898

Hosp. Asst. Kanai Charan Pal, a supy., Garo Hills dist., to Dafla dispy. in that dist., from 7th April 1898.

Hosp. Asst. Isvar Chandra Karmakar, having passed the dept. Prof. Exam. of Hosp. Assts, is promoted to the 2nd grade from 2nd Jany. 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Re. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTH.

HODGSON—On the 13th April, at Khandalla, the wife of Surgn.-Capt. C. O'C. Hodgson, A. M. S., of a daughter.

MARRIAGES.

ROUSE—STEWART—On the 12th April 1898, at the Church of the Epiphany, Cuttack, by the Rev. Cyril Price, Francis James Rouse, Assistant Engineer B. N. Railway, to Edith Mabel, third daughter of Surgn.-Major W. D. Stewart, I. M. S.

THOMAS—COOK.—On 2nd April, at St. Stephen's Church, Ootacamund, by the Rev. C. H. Malden, Chaplain of Ootacamund, Captain F. H. S. Thomas, I. C. S., to Diana (Daisy), third daughter of Surgn.-Lieut.-Col. H. D. Cook, I.M.S.

MCCARTHY—COOK.—On 2nd April, at St. Stephen's Church, Ootacamund, by the Rev. C. H. Pelly, Bishop's Chaplain, assisted by the Rev. C. H. Malden, C. D. McCarthy, Indian Forest Service, to Annie Frances Tytler (Fanny), second daughter of Surgn.-Lieut.-Col. H. D. Cook, I. M. S.

HIGMAN—BARON.—On Wednesday, the 13th April, at Abu Road, by the Rev. L. F. Phillips, M.A., Chaplain of Muttra, Walter Henry Higman, Assistant to Traffic Supdt., B. B. and C. I., Railway, to Mildred Lucy second daughter of Thomas Baron, Civil Surgeon (Retired).

DEATHS.

BUSH.—On the 10th of April, Easter Sunday, Catherine, the wife of J. Graham Bush, of Moontai Estate, Assam, and daughter of the late Surgn.-Coll. Hilson, C.I.E., I. M. S., aged 36 years.

FRASER.—At Rurki Station Hospital, on the night of the 12th April 1898, of Bright's disease, Evangeline (Eva) the dearly beloved wife of 1st class Asst. Surgn. Edwin Walter Fraser, I.M.S. and the youngest and last surviving daughter of the late Astheneus Speroes Esqr., aged 37 years 6 months and 8 days. Deeply and sincerely mourned by her sorrowing husband, children and relatives.

KILLOWAY.—On Monday, 4th April, at Dinapore, Victoria, Eileen, infant daughter of Assistant Surgeon S. Killoway.

NOTICES TO CORRESPONDENTS.

J. C. B. writes:—"With reference to your letter in the *Indian Medical Record*, dated 1st April 1898, in re to the improvement of our department, I regret to see one of the chief points have been omitted. The words *3 years in the grade* should be abolished, as the enhanced rate of pension of Rs: 200 and Rs. 250 now asked for will be attained by very few (if any), if the rule or this condition is allowed to exist, for by the time several of our hands approach the senior grade the age clause will affect them. I am sure there has been an oversight and I hope you will please endeavour to rectify it and oblige."

F. D. (Kamptee).—You will find all the information you need concerning medical education and medical qualifications in the new edition of the "Medical Register and Directory of the Indian Empire."

SPECIAL ARTICLES.

CLIMATE AND MALARIA.

By Surgeon-Major E. R. H. Rogers, M.D., C.M., A.M.S.
Jubbulpur, Darjeeling.

THAT as it fortunately is, that man has by his efforts reclaimed many extensive tracts of the earth's surface from the demon of malaria, and turned them into healthy and fertile districts, there is unfortunately a reverse side to the picture, for it is equally true that by his own acts he has transformed many healthy places into fever-stricken wastes.

It is plain that whereas man can remove malaria by the simple method of draining a swamp, he can also by the reverse process produce malaria.

I do not know if this proposition is universally recognised and accepted; if not, it is not for the want of evidence in support of it.

Numbers of cases where malaria has resulted from a saturated sub-soil, however brought about, must be known to everyone; so that I need only instance one or two, drawing attention in the first place to the fact, that it is only in temperate and subtropical climates that drainage is a cure for malaria, and that therefore it is only in such climates that the reverse condition is injurious.

There are several ways in which a saturated condition of the sub-soil has been or may be induced.

Inundations from the sea or from rivers, irrigation for agricultural purposes, the damming up of rivers to get a head of water, either for irrigation, as at Cumbum in Kurnool, or for saw-mills as in the United States, the natural silting up of rivers; the cutting down of forests in a large scale, the construction of works such as roads, canals, railroads, involving extensive disturbance of the soil. A good example of this last was brought to notice by Surgeon-Captain Rogers' observations at Dorundá, in Chóta Nagpore. At the very time that the ground-water had risen to within 5 feet of the surface of the ground in the lines occupied by the regiment, it was 25 feet down only 200 yards away, the great rise under the lines being undoubtedly *caused by a road along one side of the area*, which materially interfered with the flow of the surface water from it. This subject was fully dealt with by me in this journal, 15th December 1897.

The two following cases show malaria due to the irrigation of meadows by pure water, in England (Wiltshire) and France.

Mr. Lee[1] says:—"The whole of these meadows during about half the year form one large evaporating surface. The consequence is such as might be expected, ague is extensively prevalent in the valley, and is in some spots so general that scarcely any of the inhabitants, rich or poor, young or old escape."

"At St.-Dié-Ds Vosges," Jacquot[2] says, "where the chief agricultural resource consists of irrigated meadows, fevers are rare and fugitive; fifteen years ago they were endemo-epidemic and severe; the reason was that at that time the water, instead of being properly controlled as to duty, was allowed to collect and stagnate along the banks of the river Meurthe and form malarial pools."

"In the Lombardo-Venetian provinces of Italy, where there exist some of the oldest, most extensive and skilfully conducted irrigation works in Europe, the Government found it necessary to interfere in the interest of public health.

"These permanent irrigation works are mostly applied to the cultivation of rice. Cases are reported from the irrigated districts, of the appearance and disappearance of fevers coincident with the operations of flooding and drying of particular tracts of land." (La Roche[3]).

"In healthy and salubrious parts of Tuscany the establishment of rice fields gave rise to endemo-epidemics. (Jacquot[2]).

"In Algiers a dam was made in order to irrigate the large plain of Saint-Denis-du-Sig, between Oran and Mascara. The first year a part of it was irrigated, and through the carelessness of the Arabs and of the colonists the water was allowed to accumulate in stagnant sheets, fevers numerous and severe were the result. The next year a large amount was irrigated, but an outlet was provided for the surplus water and the place became much more healthy." (Jacquot[2])

Numerous similar cases have been recorded from the United States and the Northern parts of India.

Now all of the above mentioned conditions which lead to a waterlogged condition of the sub-soil have these two things in common, they all in certain climates inevitably produce malaria, and they all turn the district within their sphere of action into a marsh.

In these facts the whole mystery of the connection between marshes and malaria, which has exercised the ingenuity of writers on the subject for ages, is to be found.

It is extraordinary to find men straying so far from the path of common sense, as to direct their attention solely to permanent marshes, and seek therein for some special attribute, something which was particularly characteristic of them, whether the excess of organic matter, or the peculiar flora, for the special cause of malaria; when so many instances were before their eyes of malaria caused by temporary marshy conditions, entirely unassociated with either of these characteristics.

It is evident that there is no excess of organic matter when meadows are irrigated with pure water, nor can it be said that inundated land has any distinguishing flora. Yet the malaria appears all the same.

The exact definition of a marsh, I have already mentioned, presents some difficulty, and I have ventured to suggest two criteria by which it may be distinguished first that the sub-soil water must be within the reach of the growing vegetation, for to this is due its peculiar and rank flora; secondly, that the water must be sufficiently high, to be directly affected by the evaporating power of the sun.

The condition also implies that there must be more or less stagnation of the sub-soil water.

Marshes may, of course, be permanent or temporary, and in the latter the flora need not be distinctive; but if the condition is prolonged, healthy vegetation will not thrive, and gradually the flora must change.

Now all these marshy conditions, temporary or permanent, affect and alter the neighbouring atmosphere or local climate.

The practical difference between the atmosphere of drained land and marshy land is illustrated in the following passage from the evidence given by Mr. SMITH[3] before the Metropolitan Sanitary Commissioner, talking of Stirlingshire and Perthshire he said :—"few cases of ague now occur, in the undrained condition of these districts they were subject to dense fogs, especially in the autumn when much rain had fallen, but since the general introduction of drainage these fogs are seldom seen"

In other words when the sub-soil water is sufficiently high to be subject to the direct force of evaporation, large quantities of moisture are given off, which at night settle down in the form of a cold, damp pall.

I have now shown that when man by his operations on the soil has driven away malaria, or when he has induced it, he has at the same time brought about a coincident change in the local climate.

The influence of trees remains to be considered

Trees.

There are many curious and amusing things to be met with in the literature of malaria, and the portions that deal with the influence of trees are not exceptional in this respect.

It may be worth while to recall some of the ideas that have been expressed, as evidence of the confusion of mind, the "anarchy of thought" to use a phrase of DE QUINCEY'S which characterised our predecessors' attitude to these protean forms of disease

It does not suprise us to find a considerable divergence of opinions on the subject, for this is the characteristic feature of every side of the malarial question, in this case we have a divergence amounting to a direct contradiction.

Some people would cut down trees to remove malaria, some would plant them for the same purpose.

Some hold that trees neutralised the poison, others that the poison was particularly virulent close to trees, everything was topsy turvey, JULIA DE FONTENELLE,[4] CHANGEUX,[5] LEWIS,[6] and SPENSER,[7] maintained that some subtle chemical change took place, caused either by the trees absorbing the poison, or exhaling some principle which neutralised it

Another and larger set of writers hold that trees were merely passive agents and acted as a screen or filter, so as to obstruct the passage of the miasm How often do we read of that magic barrier or belt of trees? JOHNSON,[8] MACCULLOCH,[9] WILLIAMS,[10] UBALT,[11] MONTFALCON,[12] ARMSTRONG,[13] DUNDAS,[14] supported this view.

FERGUSON[15] tells us that trees have a special attraction for the poison, that it adheres to lofty, umbrageous trees. "This is so much the case, he says," that it can scarcely be separated from them, it is wonderful to see how close to the most pestiferous marshes settlers will venture provided they have an intervening belt of trees."

BLANE,[16] and MORRHEAD [17] believed that the proximity of trees was dangerous, the former says that the poison accumulates under trees, the latter that it is attracted by the foliage of trees, and that the miasm hovers round them, and between them and the ground.

While LA ROCHE[1] talks of it being entangled in jungle and brushwood and that when this is cut down, the workmen who stand up are not affected, while those who sit or lie down are.

Such ideas are not likely to appeal, in their entirety, to the present day reader, but it may well ask what have we got instead in their place? What clearer light has been thrown upon the subject?

Some one may reply—why, we have got the Eucalyptus Globulus of course!

Well, if I have not forgotten the Eucalyptus Globulus or the Eucalyptus Rostrata, and it is impossible to do so, it is the standing dish of every modern writer who touches on the subject, it is the sole morsel of comfort they can find, on all possible and impossible occasions it is dragged in, it is the universe panacea, and if some of these writers had their way, the whole world would soon be covered with it.

This extensive vogue originated in the observation made by some ingenious individual, that in Australia there was no malaria, but there was plenty of eucalyptus, while in other parts of the world there was plenty of malaria but no eucalyptus, from this the idea was quickly taken up that the eucalyptus must possess some valuable property which was antagonistic to the development of malaria.

The fact that the climate of Australia is suitable to the eucalyptus and unsuited to malaria, and that this is the cause of the presence of the former and the absence of the latter is much too simple for up-to-date science; something more abstruse is looked for.

Accordingly the Italian and French Government took up the matter on a large scale and extensive experiments in eucalyptus planting were set on foot in Italy, Algiers and other places

While it appears that a certain measure of success has been achieved, there have also been some failures and disappointments.

The tree is not suited to all climates, and in Algiers whole plantations, upon which large sums of money were expended, after a few years promising growth have succumbed to the rigors of an exceptional winter.

This is a point of the greatest importance where the planting of eucalyptus trees is meditated, and from this point of view a very unfavorable opinion on the eucalyptus was expressed by TOMMASI-CRUDELI in 1885. It is to be noted however that LAVERAN,[2] in his recently published work "Trait du Paludism" speaks highly in its favor.

The eucalyptus appears to possess two very valuable properties, it is a quick growing tree and a great absorber of moisture, as far as I am aware it is to this latter property that its beneficial action is attributed; it is simply looked upon as another means of draining the soil.

The idea that it has any specific action is, I believe, not accepted.

In all these discussions on the eucalyptus there are two very important things overlooked. "One is" that the eucalyptus exercises a distinctly unhealthy influence, like-

[illegible] faculty of draining the soil ; the other, that any other tree would do as well, always provided it was suited to the climate and soil.

The literature of malaria is not very rich in this subject of trees, which is to be regretted ; there are however a few well authenticated observations which are sufficient for my purpose.

First of all let us consider the country in the neighbourhood of Rome which has been more witten about in connection with malaria than any other part of the world.

On the authority of many ancient writers, we know that malarial fevers were always present and that marshes prevailed extensively.

The populous and flourishing state of the country in the early Roman days is a sufficient proof, if one were needed, that malarial fevers were then in extent and severity insignificant.

At the first census of SERVIUS TULLUS the city of Rome numbered 80,000 citizens capable of bearing arms.

In the days of the Volscians there were twenty-three towns and villages in the Pontine marshes, amongst these were Ardea, Lavinum, and Antium, the last, STRABO says, was a pleasure resort of the Cæsars and Patricians.

More significant still is what the same author tells us of Ravenna. "A town more surrounded by marshes than any other, yet so healthy on account of being en circled by woods, that it was selected as the best place to train the gladiators" "Mirabile igitur, hoc locus iste habet, quod in palude, aer est innoxius" he says, expressing his suprise that the air of such a marshy place could be healthy.

An important change has come over this district, in the old days it was freely wooded, at present it is almost bare, and to this absence of trees must chiefly be attributed its present feverish state.

True a certain amount of responsibility must be borne by neglected drainage, but as it is evident that in spite of all the care bestowed in drainage in olden days, marshes always existed and existed extensively, it follows that some other and more important factor must be found to account for the different degrees of unhealthiness.

There is no lack of evidence to show, both that the Agro Romano was well wooded, and that the people were fully alive to the beneficial action exerted by trees.

A special set of laws, (The Law of the Twelve Tables) was directed towards the preservation of wood.

According to THEOPHRASTUS the plains of Latium were covered, and especially towards the sea, by forests of laurel and myrtle of such a size as to be used in ship building.

LANCISI,[19] mentions that in former times there existed on the South side of Rome a thick forest. It extended from Frascati and Albano to the Tiber. He believed in the healthy property of trees.

STRABO, as I have mentioned gave them the credit for the healthy state of Ravenna, and curiously enough in 1667 we find DOXUS advocating the measures that have been adopted in recent years, viz., the planting of trees.

The successful result of the planting of the Eucalyptus at Tre Fontane in the eighties is the corollary of all this.

The ancient woods preserved the country from the worst ravages of malaria ; they were destroyed wantonly by the hand of man, with the dreaded results known to all, and now at this late hour trees have been again planted and the malaria has diminished in their neighbourhood.

The eucalyptus has served the purpose, but other trees would have been equally successful.

In no part of the world has the removal of trees been conducted on such an extensive scale as in the United States and Canada, and the invariable result has been malarial fevers.

"It is a well-known fact," RUSH[20] says, "that intermittent and bilious fevers have increased in Pennsylvania in proportion as the country has been cleared of its woods in many parts of the States." LOGAN[21] for California and STRATTON for Canada have the same story to relate, as immigration spread further west and the forests were cleared, malarial fevers regularly broke out.

I may mention one or two instances related by ARMAND,[22] "The town of Blidah was at one time embedded in extensive orange groves, which made it a delicious oasis at the foot of the Atlas Mountains, its salubrity was so celebrated that it became a favorite resort of the ancient Deys of Algiers.

An earthquake in 1825 destroyed a part of it, and in 1830 war wrought havoc amongst its buildings and orange groves, which it took twenty years to repair, during these years it became unhealthy, but when restored to its former state, healthiness returned"

"In the province of Oran, a league from the salt marsh of Misserghin says M. SOUCELYER (Mém de Méd Militaire), was the ancient pleasure resort of the DEYS, the abundance and purity of the water, the shade of its venerable olive trees made a sojourn there as agreeable as rare in the province of Oran, so dry and barren ; but the trees have been cut down, there is no longer the same shelter from the burning sun and the camp at Misserghin now pays its annual contribution to the endemo-epidemic fever of the hot season." The healthy properties of trees and sheets of water is summarised in the following observation of FLEURIAN DE BELLEVUE, that in France and Italy when marshes are well furnished with water and covered with trees planted very close to one another on the banks and causeways, so as to shelter them from the action of the sun, they are as innocuous during summer as the best soil well dried.

Again, we read that in North Carolina, when malaria is very general, "the families that live on the "Dismal Swamp" employed in making shingles, without a patch of clear or dry ground, "enjoy better health than the people who live on their new plantations near the river or swamps ; their immunity is attributed to the dense forest in this region." (WILLIAMSON, History of North Carolina).

The evidence is, I think, sufficient to prove conclusively the inestimable value of trees in the prevention of malaria, but until their modus operandi is clearly understood, it is impossible for any real advance to be made.

In studying malarial phenomena it is always necessary to bear in mind, the general division of continental climates into tropical, sub-tropical, and temperate ; and to

distinguish clearly between them. It will be found that the same rules will not apply to temperate and tropical climates; and many errors and much misapprehension have arisen by supposing they would. As for countries which lie intermediate, and which are said to have sub-tropical climates, as Algiers, it is evident that an allowance must be made for the fact that the climates vary from place to place, the temperate preponderating in one district and the tropical in another.

Without further enlarging on this subject I may draw attention to the fact that the instances I have given regarding the action of trees have all been taken from temperate or sub-tropical climates, and I may say that in such climates the influence of trees upon malaria is universally acknowledged.

There are many good reasons for believing that *this influence is altogether a climatic one.*

The trail at this point may appear to some to become somewhat obscure, if so, it must be attributed to the small amount of attention that has been paid to the subject. As the writer in the Encyclopedia Britannica says: "Little comparatively has been done anywhere in the examination of the great practical question of the influence of forests on climate, by means of carefully devised observations."

Such being the case, there is still much to be learnt, and anything I may say must be regarded rather as tentative, than final.

It is clear that forests help to make climates more equable. We have seen that "the two chief causes which tend to counteract the effects of terrestial radiation are forests and sheets of water," "hence the conserving action of forests on climate making the nights warmer and the days cooler, imparting in short to the climates of districts clad with trees, something of the character of insular climates." (Encyclopedia Brit.)

Where there are trees the effects of nocturnal radiation are not so intense, because, "the effects of radiation are not confined to a strata of air a few inches thick, but are distributed through a strata equalling in thickness the height of the trees."

The healthiest situation for a house is on the side of a hill, with trees above it, trees on the slope above the house fulfil an important function, they check and break up the currents of cold heavy air produced by nocturnal radiation, which would otherwise flow directly down upon and surround the house; protected by the trees the air about the house is warmer at night, and not subject to sudden chill at sunset.

It is easy to understand that the much vaunted barrier of trees which is supposed to obstruct the passage of malaria, *must act in this manner*, if in addition the trees possess any other power. It remains to be demonstrated.

The following table of some thermometric observations I made at Darjeeling illustrates these points: (1) the influence of trees on temperature, (2) that two places within 90 yards of each other may have different climates; (3) some peculiarities about the temperature in ravines to which I will refer at another time.

The observations were made with maximum and minimum thermometers kindly lent me by the Meteorological Reporter to the Government of India, the thermometers were placed in open work boxes facing the sun, and raised nine inches above the ground; it was my object to submit them as much as possible to the same conditions that would affect a man lying on the ground.

In most meteorological observations every care is taken to avoid the influence of solar and terrestial radiation, and every precaution is taken for this purpose. This system, however essential it may be to obtain for true comparative records of air temperature, is unfortunate for the elucidation of the question of the influence of climate upon health, for the thermometers are carefully shielded from the very effects most likely to cause disease, and most frequently associated with malaria.

For the observations two knolls were selected at the same elevation of 7,600 feet and eighty yards apart, one was bare, the other was fairly thickly wooded. The third thermometer station was at the mouth of a small ravine 300 feet below.

Table I. Thermometric observations at Darjeeling.

Date.	Elevation 7,700 feet.				Elevation 7,400 feet.	
	In a small grove of Trees.		Over open ground.		At bottom of small Ravine East & West.	
	Max.	Min.	Max.	Min.	Max.	Min.
Dec. 1897.						
30	46	34	93	32	76	33
31	41	33	72	31	56	32
Jany. 1898.						
1	42	32	81	30	71	31
2	41	33·5	62·5	31	49	32
3	43·5	33	85	32	73	32
9	52	35	97	31	78	29
10	52	34	101	32	85	29
11	51	35	91	29	81	30
12	46	34	94	28·5	81	29
13	48	30	90	25	68	28
14	40	30	74	25	60	29
15	41	30	80	23·5	78	28
17	45	34	71	30	54	30
18	54	37	92	32	82	32
19	58·5	43	100·5	32·5	90	30
20	56	33	96	27	86	30
21	45	33·5	83	26	61	31
22	46	35	85	30	74	31
23	47	35	86·5	30	76	32
24	50	35	94	30	76	32
25	47	35	83	30	74	32
26	45	32	65	33	58	34
27	39	35	66	31	59	33
28	48	33·5	83	31	69	33
29	46	35	91	33	78	35
30	43	34	64	31·5	55	32
31	45	36	84·5	34	78	32
Means.	46·4	34·3	84·0	30·1	—	31·1
Diff.	12·1		53·9			

It is interesting to observe that in twenty-seven observations the mean daily range under the trees was only

[illegible] while over the open ground it was as much as [illegible].

The minimum under the trees was of course much lower, and the minimum higher, which is of course only what everyone would expect.

The one climate was very much more equable than the other and presumably much more healthy.

(*To be continued*)

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THE NECESSITY FOR SPECIAL EDUCATION IN TROPICAL MEDICINE.*

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GENTLEMEN,—I have been asked by the authorities of this school to speak a word of welcome to those of you who to-day commence your systematic medical studies. I congratulate you on two things—one, your choice of medicine for your profession; the other your choice of St. George's for a school. Though the medical profession is by no means a bed of roses, perhaps more than any other, it is one which to him who follows it in the proper spirit is full of good things. It is intensely interesting; it is a recreation as well as a study; its influence on society is rapidly increasing; it is a fairly satisfactory means of getting a livelihood; and, above all, it is full of boundless opportunities for doing good. What reasonable man could wish for more? As regards your school, apart from its associations with the past—associations such as few can boast—I can confidently claim that of all the metropolitan medical schools none have shown of late years more energy, greater determination to keep with the times, or more far-sighted enterprise. Nor have the students been unworthy of their school, for St. George's men are known all over the English-speaking world as accomplished physicians and surgeons. More than this, and in a greater measure owing to the high tone of the school and of its social life, which has been carefully cherished by the teachers, they are known as good citizens, brave soldiers, loyal and devoted public servants, and, even better than that, as gentlemen. For come therefore to an older centre of honourable repute; it must be your care to maintain and, if possible, to add to this reputation. In congratulating you on your choice of a school I do so on the strength of what, since I had the honor of being connected in a humble way with St. George's, I have observed here for myself. I have been especially struck with the energy I have already referred to and that foresight in the management. In every department I find these. Naturally the institution of a lectureship on tropical medicine has appealed to me more especially; but this is, I see, only one evidence of the spirit that runs through the entire management. Laboratories, museum, teaching appliances, and teaching are all of the best and most advanced description; and I am especially pleased to remark that the students, so far as my opportunities have enabled me to judge, are not slow to avail themselves of their exceptional opportunities. The mere fact of my being asked to address you on this occasion, I believe, is but another evidence of the desire of the authorities to advance, to extend, and to improve the training they offer. They seem to be impressed with the desirability of something being done for one of the neglected departments of medical education, for tropical medicine, and as they know the interest I take in this subject, I have an idea that this is the reason why I have been asked to come here to-day. I fancy I am expected to ventilate the matter. This being so, the first remark I would make is, that the systematic teaching of tropical medicine, ere many years are over, will be universal in our medical schools Those who can read the signs of the times and who are best able to judge, regard this as inevitable. Why? Because our country is the centre of a great and growing tropical empire; and, second, because tropical disease in many respects is widely different from the diseases of temperate climates, which, practically, are the only diseases about which at present the student receives instruction. There are dozens of diseases more or less special to the tropics—diseases which demand special knowledge for their diagnosis and successful treatment. Rather over a fifth part of the medical graduates of Great Britain and Ireland practise in warm climates or, being in the army or navy, may be called upon at any time to do so. Surely if tropical practice is so different from practice here, it is highly desirable that this vast army of medical men should be properly equipped for their special work. It may be said, and has been said, that as the principles of pathology and therapeutics are the same the world over they apply in India as well as in England. Quite true. But we have not to do merely with the principles of pathology and therapeutics. As a practical profession we are more concerned with their application which is quite another matter. Similar objections might be, and formerly often were, raised about giving special instructions in such branches as eye disease, skin disease, and so forth, but the advance of our art and the requirements of the public have long ago swept aside these objections. So it is now with the teachings of tropical medicine as a special subject, and so in the near future it will be. A principal reason why hitherto there has been so little done in this matter is this. Candidates for medical degrees know very well that they will not be asked any questions about tropical disease by their examiners, and

* Being a lecture delivered at St. George's Hospital at the opening of the Winter Session, October 1st, 1897, and reproduced from the *Lancet* by request.

so they have not demanded instruction on this subject. And the reason why questions are rarely put on tropical medicine is that the leaders of the profession, those who man our hospitals, who fill the teaching chairs, who examine for degrees, who grant licences to practise, who make the regulations for the education of the youth of the profession, are, in almost every instance, men who have never practised in warm countries, and who themselves have never felt the necessity for a wider and more practical knowledge of the diseases peculiar to these climates. Not having themselves felt the want, they have been slow to acknowledge that such a want exists, and slower still to apply the remedy. But ask those who are best qualified to express an opinion on this subject. Ask the medical men who have themselves felt the responsibilities of practice in the tropics, and more especially those of them who have endeavoured to follow recent developments in tropical pathology. Ask them if they do not think that the medical man who goes out to battle with tropical disease should have some special instruction and training for the very special and responsible work he has before him, and if they do not think that the medical authorities should take care that the men who do so go out to practise should be properly qualified so far as teaching can qualify. I am sure of their answer. Unfortunately, most of the men of tropical experience live and practise away from the great medical centres. They are hardly represented on the medical teaching, graduating, or legislating bodies, and so it comes that their opinions do not make themselves felt, and that a much needed reform is delayed. It is more especially of recent years, partly in consequence of the enormous expansion of our empire and partly in consequence of the advances in tropical pathology which have signalised the last two decades, that the claims of tropical medicine have become urgent. Formerly the little that was known about tropical disease could be carried in a waistcoat pocket. But of late years so great has been the advance that now-a-days the subject is quite as extensive and quite as special, so as to speak, as ophthalmology, dermatology, gynæcology, or as any of those departments of medicine which claim and receive special teaching. More so. When the practitioner in this country is puzzled about a case it is an easy matter for him to call in some one known to be familiar with the class of case he is in trouble about. But in the wilds of Africa, in the islands of the Pacific, in lonely stations in India or China there is no consultant to fall back upon. The practitioner there has himself alone to depend upon. And woe to his patient and, if he has a conscience, to his future peace of mind if he is not up-to-date in his knowledge.

The course of instruction in general medicine usually received in this country is utterly inadequate to qualify for tropical practice. I say so emphatically, basing my assertion on my own experience, my own mistakes, and what I have seen and still daily see of the mistakes of others. Let me illustrate this by a few examples. Take that great scourge of mankind, greater, perhaps, than tubercle itself—namely, malaria. This is eminently a tropical disease. Every day the tropical practitioner is fighting it. Yet what does the student and future tropical practitioner actually know about malaria when he is stamped as qualified to practise his profession even in the haunts of this disease? He may possibly recognise a tertian or a quartan ague, and he may know that quinine will cure them. Ten chances to one his malarial patients know all that quite as well as he does himself. But could he, any more than his patients, tell a malarial remittent from an enteric fever; could he diagnose a pernicious malarial attack from cholera, it may be, from thermic fever, from apoplexy? He has heard of the malaria germ, but has he seen it; could he recognise it; has he been taught to find it for himself; to make use of the fact of its presence or absence in the circulation as an infallible means of diagnosis? What would an examiner now-a-days do with a student who could not recognise and demonstrate the tubercle bacillus? He would pluck him. At all events, were I an examiner I would pluck him. And if I were an examiner and found that a student, intending by-and-by to practise in the tropics, could not recognise and demonstrate the malaria parasite I would do the same. For I know that the malaria parasite is just as important to him and his prospective patients as the tubercle bacillus is, and that the ability to recognise and demonstrate it is just as necessary for the tropical practitioner. In those terrible sudden forms of malaria which now and again will be sprung on him perhaps the only reliable means of diagnosis lies in ability to recognise the malaria parasite. Life hangs on it. Dr. ANDREW DAVIDSON, whose experience in tropical medicine has been very great, and whose judgment and knowledge are on a par with his experience, on my telling him I was to speak about these things to-day, and sympathising with my views, at my request sent me some memoranda on the subject. He relates a case which well exemplifies the necessity for knowing something about malarial disease before attempting to treat it. He writes: "I had not landed many weeks in Madagascar when I was called upon to see a patient who, I was told, had been suddenly seized with what was looked upon as an apoplectic fit. This was in the afternoon and when I saw him about an hour afterwards, he was lying unconscious, the body in a state of complete resolution. The skin was cool, the pulse and respiration were slow, and there was no stertor. His condition suggested cerebral hæmorrhage or thrombosis. It was, indeed, in a certain sense a case of thrombosis, for, as it turned out, the patient was suffering from the apoplectic form of pernicious malarial seizure, in which, as we now know, certain capillary areas in the brain are permanently or temporarily blocked by malarial parasites and pigment. The disease is by no means a rare one in malarious countries. It had long before been described by TORTI. I had read in GRAVES' lectures of the soporose or comatose seizure, in which fever is a prominent symptom. Here there was no fever, and the possibility that it was a malarial attack never entered my mind. What the precise brain lesion might be I could not decide. But something had to be done, and I saw nothing better than to place a drop of croton oil on the tongue, apply a blister to the nape of the neck, and warn the relations to prepare for the worst. I was gratified to hear next morning that, after remaining ten hours insensible, the patient had recovered consciousness; but what surprised

me most was that there was no paralysis. The patient's chief complaint, in fact, was the blister. In the afternoon of the same day the patient was seized with shivering, fever, and sweating. There could now be no difficulty either as to diagnosis or treatment. The patient probably owed his life to the fact that the apoplectic seizure did not occur and prove fatal, as it often does when treated on the lines I had followed. What I conclude from this is that grave mistakes would often be obviated by special instruction in tropical medicine." Dr. DAVIDSON remarks: "Experience, no doubt, is a good teacher, only the fees are very heavy." The microscope would probably have diagnosed this case correctly, but then one must be taught how to apply it.

I could relate from my own experience many similar stories illustrative of the danger to life with which a working experience in malaria has been bought. As with malaria, so with many less important, though nevertheless very important, tropical diseases What, I would ask, does the student learn of practical value about beri-beri, a disease which, if he is to practise in the tropics, he is almost sure to encounter often enough, although he may not recognise it when he does come across it? Beri-beri is a very important malady. Occurring both endemically and epidemically, it annually kills its thousands and tens of thousands. It makes the settlement of many fertile lands almost impossible. It kills off the planters' coolies like flies and makes his plantations unprofitable. It fills the hospitals and is a downright scourge in some of the fairest lands of the earth But it is a disease which can to a great extent be prevented; and it is a disease which can by proper management be robbed of much of its danger. Its recognition, therefore, is of the first importance. Many times, in beri-beri perhaps more than in most diseases, early and correct diagnosis means the saving of life. When I first went to the East, all I knew about beri-beri was its name. This I had sometimes seen in books. I had wondered at its quaintness; perhaps medical student-like. I had waxed facetious about it and hap punned upon it. So little did I know about beri-beri that I believed some medical writers who said that it was a kind of anæmia. Examiners, I was told, were not likely to ask any troublesome questions about the symptoms, pathology or treatment, so I skipped the chapter on beri-beri in "Aitken's Practice of Medicine" as being for my immediate purpose useless. Students then, as I suppose students now, worked to pass their examinations as their primary object; to learn their profession was altogether a secondary affair. Little wonder, therefore, I failed to recognise the disease when I first came across it. I well recollect my first case, and the horror and the shame with which it filled me, and still fills me. I was then in practice in Formosa. One day I was called to see a Chinese clerk employed in a European firm. I had known him well as an active, obliging young fellow. I found the patient sitting propped up in a chair, short of breath, dropsical from head to foot, with a cardiac bruit, irregular, tumbling action of the heart, and complaining of a feeling of distress in his chest. As there was no albumin in the urine, and as there was a loud bruit with manifest disturbance of the heart, I felt convinced it was a case of heart disease, and from other circumstances in the case one which treatment would benefit. I prescribed and gave directions, and went away feeling, and probably expressing by my manner, that we Europeans knew a great deal more about disease than the old Chinese doctor who hitherto, with the assistance of the village idol, had been treating the patient. Next day I went to see the lad expecting to find an improvement. I thought, as I passed the door, that there was a strange hush about the house. I entered what was my patient's room. On the bed, covered with a blanket, there was something long and rounded and still which explained the hush I had noticed; and so I left the house sadder, wiser, and, I trust, humbler than I did the day before. Some years later, being then in general practice at Amoy and in charge of a large native hospital, I used to see a number of Chinese soldiers who came to hospital suffering from what appeared to me, in my ignorance, to be locomotor ataxia. Some could hardly walk, others could just stagger into the out-patient room, and some had to be carried in. The significance of the knee-jerk symptom in spinal disease was then a new discovery and in those days was regarded as a sure sign of locomotor ataxia. In all of these soldiers the knee-jerk was absent, and all of them exhibited what I took to be ataxic symptoms. If you would criticise my diagnostic acumen please bear in mind that in those days peripheral neuritis had not been invented. However that may be, I diagnosed these cases as locomotor ataxia, prognosticated that they would never recover, declared that there was no immediate danger to life, put them to bed, and prescribed strychinine in various forms. But by-and by, in utter disregard of my prognosis and of my reputation, in the course of a month or two, some of those soldiers whom I had regarded and pronounced as hopeless cripples were walking about; some had even returned to their military duties. This is the pleasant, not to say the funny, side of my mistake. There is another side however—one not quite so funny. A good many of these patients died—died suddenly, just as my dropsical Formosa patient had done. I was mortified as well as puzzled. What was the nature of these cases? My books did not help me. I noticed that whereas some of these paretic patients were wasted to shadows, others were swollen and œdematous. I also noticed that in most of them the muscles, especially the calf muscles, were tender. Occurring as this disease did as an epidemic, and confined to a very limited area (for most of the cases came from a damp, ill-constructed fort, the casemates of which served as a barrack), and knowing that the Chinese are very fond of pork, I thought that the muscle tenderness and the œdema might be symptomatic of trichinosis. I thought I might be dealing with an epidemic of trichinosis. Indeed, I went the length of searching the muscle for trichinæ. If they can help it, the Chinese will not allow their dead to be dissected. I always entertained a great respect for what we in our civilised pride call "native prejudices;" but in this instance, in view of the importance of correct diagnosis, I thought I would run the risk of offending those for once. So with the aid of an old and seasoned native porter I smuggled one of the dead bodies into a piece of waste ground near the hospital, and there behind a wall excised a piece of muscle. Needless to say I found no trichinæ. In this way I groped about for a long time in

search of a diagnosis. It was not till months had elapsed and not a few deaths had occurred that I recognised that I had to deal with an epidemic of beri-beri, and it was only then that it began to dawn on me that the poor dropsical fellow who had died in Formosa some years before, had really died from beri-beri and not from heart disease after all.

For exactly the same reason—lack of proper teaching—the history of my education in the matter of beri-beri is that of most of the medical men of my generation who in lonely places in the tropics, essayed to practise their profession. And I am grieved to say that in this matter, even at the present day, it is just as it was thirty years ago. My education in beri-beri was got by experience: the young medical man of the present day has to learn in exactly the same costly way as I did and in the same stern school of experience. As Dr. ANDREW DAVIDSON says in his letter to me:—"The fees are heavy." Only the other day I got to know that there had been no improvement on the teaching of beri-beri in all these thirty years. This is how I came to realise the ugly fact. Beri-beri is very common, you may be astonished to hear, in the port of London, especially among the lascars and seedy boys who in many instances form the bulk of the crews of the large steamers trading to the East. The cases are often brought to the Seamen's Hospital. They come on written medical recommendation and are sent as cases of heart disease, kidney disease, almost anything but beri-beri. They are very rarely correctly diagnosed. Now the ship-surgeons who make out the certificates are usually men fresh from the schools and from their examinations, and therefore, presumably, well up in all that is newest in medicine. Here is a verbatim enumeration of some of their diagnoses; anasarca, rheumatism, pericarditis and fits, dyspnœa, cardiac disease, debility, asthma and anasarca, Bright's disease, locomotor ataxia, myelitis, tachycardia, apoplexy, paraplegia, progressive muscular atrophy, and, of course, hysteria. I transcribe these diagnoses from the admission registers. Not once in a dozen instances is the diagnosis correct. Now it does not matter so much whether the cases are correctly diagnosed or not provided they are sent to hospital. But there is every reason to believe that many of the cases of ship beri-beri are not sent to hospital, but are treated on board their ships, and that many die in consequence. When we admit a case of beri-beri from a ship we ask if there are any more cases of the disease on board and if there have been any deaths. We are generally told that there are no more cases on board, but that there have been deaths from heart disease, asthma, or some such name, which from experience we know under the circumstances stands for beri-beri. Sailors, we may be sure, are not shipped with active heart disease or with asthma such as would be likely to have a speedily fatal issue. I heard of one instance of a lascar who had been shipped in India as an effective seaman. Within a few weeks he died on board ship, and the cause of his death was officially logged as locomotor ataxia; as if locomotor ataxia ever ran its course in four or five weeks. The man died from undiagnosed beri-beri as many others have done. All this represents a very serious, not to say disgraceful, state of matters. Most of these deaths are avoidable. No beri-beri patient should be allowed to remain in the ship, whether house or ship, in which his disease was contracted; to allow this is like treating a case of alcoholic delirium with brandy. To treat alcoholic neuritis properly you must first diagnose it, and similarly to be able to treat beri-beri properly you must also first diagnose it correctly. But without special instruction or without an experience bought with human life there is as little chance of being able to diagnose the one as there is to diagnose the other.

Filariasis is another tropical disease which is often overlooked, and about which there are many absurd and even dangerous misconceptions. In most tropical countries in which the subject has been investigated, it has been found that about one man in every ten is affected with blood worms. In some places the proportion is as high as one in three, in others one in two, and I know of at least two places where nearly every inhabitant is victimised in this way. Surely, therefore, it is of importance, seeing that these parasites give rise in many instances to grave disease, that the medical practitioner should know something about them, be able to diagnose their presence, and recognise their effects. But ten chances to one if one asks a student, or even a medical practitioner, to set about examining a patient for filariæ, he will prepare a very fine film of blood, such as would be suitable for the demonstration of bacteria, and that he would set to work to examine it with a twelfth of an inch immersion lens and an Abbe condenser. Now, although there may be tens of millions of filariæ in the patient's blood, the chances are they will not be discovered by such means. Most people think that when they have to make a microscopic examination, the more microscope they have the better. As a rule, the reverse is the truth. Filariæ should be sought for with an inch objective, otherwise they will be missed. Though the individual filariæ are large as compared to bacteria, they are relatively few in the blood. You require, therefore, to include a large field with your microscope to have a reasonable chance of finding them. If a sailor could command with his eye only the narrow horizon visible from a small boat, he is not likely to see many whales in the sea, so he ascends into the crow's-nest at the mast-head, and, commanding there a wide view, he can see any whale that spouts for miles around. So it is in searching the blood for filaria—a large field is indispensable. But this is a self-evident fact hardly ever grasped by the student unless he has it actually demonstrated to him. He seldom arrives at it spontaneously. Now, exactly the opposite is the case for the malaria parasite. All this needs teaching, needs demonstration. The malaria parasite I tried to find for nearly ten years before, through accident, I finally succeeded. A Chinaman found my first filaria for me. I mention these things to show how necessary it is, if we would save time and make the best of our opportunities, to have someone to teach us even simple technique.

In connection with filariasis and blunders in diagnosis from want of elementary instruction in tropical disease I may refer to a case which I came across. The patient was a handsome young fellow, who some years before had joined a regiment of horse artillery then in India. He got on very well for a year, liked his work, and was

[illegible] the right hand for protection. One day he got a severe fever, and with the fever a pain in his left groin, which he rode and for the first time noticed to be swollen. In due course the fever subsided; not so the swelling, which grew and grew until it became the size of a fist. It interfered with his riding, and so he consulted the regimental surgeon. The swelling was soft and to a certain extent reducible. Accordingly rupture was diagnosed and a truss applied. But the truss caused so much pain that it could not be worn. It irritated the swelling and brought on attacks of inflammation and fever. Getting no better he went to one of the Presidency towns to consult a surgeon of experience in tropical disease. This surgeon recognised at once the true nature of the swelling, diagnosed the case as one of varicose groin glands, confirmed his diagnosis by an examination of the blood, which he found to be full of filariæ, and very properly advised the patient to throw away his truss and to give up soldiering. Now a very little instruction in tropical disease given to the regimental surgeon would have put him on the right track, would have spared this patient much suffering, time, and expense, and have reduced to some extent the military burdens of our over-taxed Indian empire.

One more illustration of my contention. In 1895 and again in 1896, Mr. GALGEY, Colonial Assistant Surgeon, St. Lucia, West Indies, sent certain valuable reports to the Government, part of which were subsequently published in one of the leading medical journals, pointing out that ankylostomiasis is very prevalent in St. Lucia and probably all over the West Indies, and narrating his experience of the wonderful efficiency of thymol as an anthelmintic. As many of you are doubtless aware, there is a form of pernicious anæmia common among negroes and the natives of hot countries generally. The patient, without obvious reason, becomes breathless, weak, anæmic, dropsical, and very likely, after a long and distressing illness, dies. Many years ago, GRIESINGER showed that the Egyptian form of this disease was associated with—in fact, caused by—a blood-sucking intestinal parasite—the ankylostomum duodenale. In 1880, in consequence of the publicity given to this discovery by the epidemic of ankylostomum anæmia among the workmen in the St. Gothard tunnel, this fact of the relation of the ankylostomum to a form of pernicious anæmia was thoroughly established. In the same year BOZZOLO introduced thymol as an anthelmintic in this helminthiasis. Experience in Jamaica, Ceylon, Java, Brazil, the Straits Settlements, and elsewhere confirmed GRIESINGER'S discovery of the cause of this anæmia and also BOZZOLO'S discovery of its curability by thymol. But although these things were well-known in Italy and in many parts of the tropics, their importance was missed by the teachers of medicine in England, and as a consequence the medical men who went out even subsequently to 1880 to the West Indies, went out imperfectly informed in a matter of the highest importance to a considerable section of the people committed to their charge. Thus our fellow subjects, the poor negroes, did not have the benefit of an important advance in medical science and in practical therapeutics until Mr. GALGEY found, fifteen years after it was known in Europe, that ankylostomiasis was the cause of the anæmia of the negro and that thymol could cure it. Who can estimate the number of lives that might have been saved if tropical medicine had been taught to our West Indian colonial surgeons, and if they had gone out thoroughly informed on the subject of ankylostomiasis? Mr. GALGEY writes that in the six years 1890-95 there were 72 deaths in the hospital of Castries, St. Lucia. In the year 1896—that is to say, since he diagnosed the nature of these cases and treated them efficiently—he informs us that there was not a single fatal case of this disease. From this we are entitled to infer that the seventy-two deaths from pernicious anæmia occurring in the preceding six years were from ankylostomiasis, and that these seventy-two lives might have been saved. That is to say, an average of twelve lives a year. Or, assuming that this mortality had been going on ever since 1880, the date of the discovery of the anthelmintic properties of thymol, we must conclude that in the hospital of Castries alone 180 people died whose lives might easily have been saved. But this is not all. There are four or five hospitals and dispensaries in St. Lucia, and as there is no reason to suppose that ankylostomiasis is confined to the Castries district of the island, we are forced to conclude that in these fifteen years about 900 have died unnecessarily in St. Lucia. St. Lucia is one of the smaller West India islands. Although I know that thymol has been in use for some time in British Guiana, I do not know that, except in the hospital in Kingston, Jamaica, it has been generally employed in the neighbouring archipelago. I also know that the existence of the ankylostomum has not been recognised, at all events until very recently in many of the islands. The avoidable mortality from ankylostomiasis therefore for the whole of the West Indies during these fifteen years must run into tens of thousands. This is a serious indictment against our present system of medical education, and the worst of it is that what holds goods for ankylostomiasis holds good for a dozen other tropical diseases, some of them perhaps not so serious as ankylostomiasis, but some of them even more serious.

I fear that, as so often happens in medical lectures, I have spent so much of my hour in describing the symptoms and pathology of this disease of the body medical that I have little time left in which to speak of that very practical matter, the treatment. I hope, however, I have convinced you that we are speaking of a very grave disease in our educational system, and that there can be no question about the diagnosis and the indications for active and prompt treatment. I have my own ideas about the latter, but as the responsibility in the case is serious, I have called in a specialist of experience to prescribe. I need hardly say I fully endorse his prescription. Dr. ANDREW DAVIDSON writes:—"I do not think that attendance on a course of lectures on tropical medicine should be made a part of the ordinary curriculum. It seems to me, however, urgently necessary (1), that a course of lectures on the hygiene and diseases of warm climates should be instituted in each medical school; (2) that a certificate of qualification in these subjects be granted by the licensing bodies after examination to those who have attended this course of lectures; and (3) that the Government should encourage the study of tropical pathology by giving a preference to those possessed of this certificate if equally proficient in other subjects, and that

appointments made from home of medical officers for tropical and sub-tropical colonies should be restricted to men holding this qualification." If these suggestions are acted on, not only would vast benefits accrue to the natives of warm climates and to those Europeans who have to reside among them, but an enormous impetus would be given to tropical pathology and therapeutics, and, doubtless, indirectly to medical science in general. By instituting a lectureship on tropical medicine St. George's Hospital has done its share in encouraging this necessary reform in medical teaching. Other schools are following our lead; but be the schools ever so willing to second each other without the co-operation of the General Medical Council, they can do but little. As Dr. Davidson suggests—and it is the General Medical Council that can alone give effect to the suggestion—there should be a special examination and some kind of diploma for tropical medicine, and Government should countenance and encourage it. If this reform be carried out of one thing I am sure, and that is that those of you who in the future may go abroad to practise your profession will bless the General Medical Council for forcing you to qualify yourself for your work.

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THE PROGNOSIS IN CARDIAC DISEASE.*

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The fact that some of the most serious and suddenly fatal forms of disease are at times preceded by so few symptoms will always make the prognosis in cardiac disease one of the most difficult questions in clinical medicine.

In the first half of life valvular lesions are the result of endocarditis, and the prognosis depends largely on the nature and degree of the infection, the particular micro-organism present and the resisting power of the constitution For instance, endocarditis resulting from scarlatina is not likely to recur, and other being equal, is on that account more favorable than the form due to rheumatism.

It is difficult to determine whether the systolic bruits, which occur during an attack of rheumatism, have been caused by changes in the heart valves or in the blood; and while the immediate prognosis of endocarditis occurring during a rheumatic attack is usually favorable, the liability to recurrence renders the future more uncertain, though after 40 years of age recurrent attacks of rheumatism generally cease, and if they do occur, they are not so likely to be accompanied by fresh attacks of inflammation of the endocardium. Rheumatic endocarditis is often fatal in young children owing to the pressure, also of peri and myocarditis.

Though in nearly all the cases where it lasts from the beginning to the end of an attack of rheumatism, the endocardial murmur never disappears in after-life, the physician should not alarm the friends of the patient by predicting serious heart-disease simply because he discovers a heart murmur during an attack of rheumatism. For even when the endocardial murmur exists throughout the greater part of an acute attack, complete recovery and perfect reparation takes place in a certain proportion of cases. Thus Latham records 17 and Gibson 25 recoveries out of 63 and 51 cases respectively.

Then, as a very little over-exertion may very much increase the gravity of the prognosis, which during the period of establishment of compensation depends largely on the behaviour of the patient *and* the treatment adopted, it is imperative to ascertain (1) the (*a*) extent and (*b*) the duration of the lesion and (*c*) the changes it has caused in the heart itself. (2) presence or absence of other diseases, (3) condition of the other organs, (4) hereditary tendencies and (5) the temperament, life habits, surroundings and 'calling' of the patient.

Auscultation *per se* does not give definite conclusions and many writers complain that the stethescope has done very little in the prognosis of cardiac disease; but when these two methods are combined with the powers of observation possessed by the older physicians, they are efficient aids to estimating the extent of lesion during compensation and, which is of *more* importance, the completeness of the compensation estimation.

In *mitral insufficiency*, which is the most frequent and the least serious of valvular lesions, the development of subsequent changes is slower than in any other. When not the result of mitral lesion, mitral incompetence is due to dilatation of the ventricle from anæmia, acute febrile diseases, old age or lesion in the other valves, and when found in acute febrile diseases or anæmia, complete recovery may take place, while in old age it may exist when there is only a moderate dilatation of the ventricle, and this condition, which always indicates a weakened myocardium, may exist for years.

The accentuation of the pulmonary second sound is of value in diagnosing a very slight from a very large amount of regurgitation; but when the right ventricle has given way to some extent, this sound may not be heard at all, and a most serious condition of the heart is indicated.

Irregularity of the pulse is a sign of failing compensation and the volume and tension of the pulse falls when there is much regurgitation.

The heart being nearly normal in size and there being no other evidences of serious lesion, the musical sound of the mitral murmur, produced by a narrow slit-like opening due to imperfect closure of the segment of the valves, is the indication of a 'slight amount of regurgitation,' which is also indicated by a late bruit, of an almost post systolic character, or a small volume of sound; but it must also be remembered that the musical sound may result from one of the chordæ tendinæ in the blood current, while in extensive mitral lesions of a serious nature, when the heart is much enlarged and the force of the valvular contraction is not great, a soft murmur of small volume may occur, a very loud mitral regurgitant murmur may exist when the lesion is slight. Thus Parrott mentions a case who lived 20 years, during which his heart sounds could be heard across a billiard table, but died from acute dilatation due to over-exertion, and the author

* Read before the Toronto Medical Society and specially reported for the *Indian Medical Record*.

had a case whose 'late systolic murmur' could be similarly heard, but who recovered.

As far as volume of sound is concerned, mitral insufficiency may be divided into four classes: (1) A slight murmur in a fairly healthy heart indicates small lesion. (2) A loud murmur at the apex, under scapular angle and at the spine, tells of an extensive lesion, dilated ventricle and a strong myocardium. (3) When the bruit replaces the second sound a more serious lesion and want of closure of the valves are indicated; but (4) extensive disease and a weak myocardium are betrayed by the soft blowing sound with a dilated heart.

In *aortic stenosis* scant reliance can be placed upon the volume of sound, as an aortic systolic murmur indicates stenosis in a certain proportion of cases only; but a loud systolic aortic murmur decidedly lessening in volume betokens weakened myocardium and a serious prognosis, which latter may be enhanced if dizziness or fainting fits be present since they point to cerebral anæmia. The absence of constitutional disturbances, together with the continued loudness of the murmur, offer a fairly good prognosis as long as there is compensative hypertrophy indicated by the size and shape of the left ventricle, the apex beat being downwards into the left. The pulse in aortic stenosis is small, long and tense.

Mitral stenosis has three stages: (1) where the aortic second sound is heard clearly at the apex, (2) where it is absent at the apex, and (3) where the pre-systolic murmur is absent, owing to dilatation of the right ventricle and tricuspid incompetence. The pulse is usually small and may be compressible or tense. Owing to the decreasing tendency of the opening and to the force of the right ventricle resisting the reflux into the ventricle while it fills the ventricle more rapidly in diastole, the prognosis is not very favorable and less so in children than in adults. If there are signs of pulmonary hæmorrhage, hepatic enlargement and dropsy in addition to (*a*) the tricuspid regurgitant murmur, (*b*) the venous pulse in the neck, and (*c*) the absence of accentuated pulmonary second sound, prognosis is grave indeed.

Aortic insufficiency is less dangerous when it comes on in early adult life, because compensatory hypertrophy takes place more readily than in later years. When aortic disease results from syphilis, the prognosis is unfavorable and antisyphilitic medication useless. The pulse should be carefully examined, and if it is distinctly collapsing in character it indicates a great amount of insufficiency; but the loss of elasticity of the vessels may prevent the collapse being noticed, while in cases of grave prognosis a collapsing pulse may be prevented by (1) aortic stenosis preventing the return of blood to the heart, and (2) failure of the heart muscle with too feeble blood propulsion to produce a collapsing pulse. The delay of pulse, due to emptiness, intonicity or enlargement of the vessels, is most marked when there is much regurgitation, and irregularity in the frequence and force of the pulse occurs in the latter stages of the disease.

When compensation has taken place, the size of the heart is in proportion to the regurgitation. The murmur is often more favorable when it is long and loud than when it is difficult to hear, and when it takes the place of the second sound, the amount of the regurgitation is greater than when the click of the the closing valves is heard in addition to the bruit; but the presence of the pre-systolic and systolic murmurs is of serious import as they indicate great dilatation of the left ventricle.

Aortic stenosis sometimes exerts a beneficial effect on regurgitation by preventing the rapid emptying of the aorta into the left ventricle. Tricuspid regurgitation is a severe lesion whose severity is all the more serious when it occurs as an independent disease, as it is the (1) result of serious changes in the mitral and aortic valves, and (2) the walls of the right ventricle do not undergo compensative hypertrophy as those of the left do. The following is the grade of gravity in the comparative prognosis of the different valvular lesions:—(1) tricuspid and (2) aortic insufficiency, (3) mitral and (4) aortic stenosis, and (5) mitral insufficiency.

The prognosis is always more favorable during childhood and early adult life, when valvular lesions are generally the result of inflammation, than in those occurring after middle life, and which are often caused caused by degeneration when the recuperative powers of the heart are much diminished. The presence of lesion of two sets of valves increases the gravity of the case, but patients suffering from double lesions have lived for many years. Mitral stenosis which comes on in childhood, is more serious than that which occurs in early adult life, and it is quite probable that from year to year changes do take place in the affected valves as the result of either chronic or sub-acute endocarditis. Rupture of a segment of valve is usually fatal, though cases are recorded where patients have lived for *weeks* after such a lesion.

The *condition of the other organs* of the body should be faithfully examined, as enlargement of the liver, venous stasis, œdema, albuminuria are unfavorable symptoms, which become serious indeed when they follow the period of compensation, though their prognosis becomes more favorable if they are results of overwork or if rest is followed by a decided amelioration of symptoms. The liver should always be examined carefully as it is often an indication of the condition of the right ventricle.

The *social condition* of the patient may be an important factor, and if he have ample means and the wish to take care of himself, he will probably live much longer than the one who has to struggle to support himself and family, yet the rich man may weaken his endocardium by becoming indolent or drinking too much. Tobacco acts deleteriously on the system, and is often the cause of serious changes in the heart. WHITTAKER notes that a man may smoke for 15 or 20 years without injurious effects when suddenly symptoms of nicotine poisoning may develop. Alcohol has an injurious effect, especially in the production of arterio-sclerosis. Sex has an important bearing. Mitral stenosis is more frequent in the female and aortic insufficiency in adults. BROADBENT says when the valve disease comes on in childhood, girls break down at the period of puberty more often than boys.

Hereditary tendency plays a very important part in the prognosis of cardiac disease, and though the heart symp-

toms are sometimes altogether out of proportion to the extent of the disease, there is always the possibility of congenital shortcomings getting worse, or of an attack of infective endocarditis from accidental introduction of disease germs into the circulation, or of arterial sclerosis or Bright's disease exerting a very deleterious influence on a heart weakened by valvular disease, and it is well known that a valve already injured often becomes the seat of an ulcerative process or degeneration.

Sometimes grave symptoms such as dyspnœa and tendency to syncope may exist and may not be entirely due to cardiac lesions, or a patient with slight mitral lesion may have palpitation or irregular action due not to heart but to digestive disturbances; or, again, sickly persons past the middle age of life but in whom there is no valvular lesion may have a feeling of oppression and other dyspeptic manifestations of extremely grave import, or of comparative unimportance and of a temporary character. Hence the necessity for estimating the actual extent of the lesions which at first appear more formidable than they really are.

A high tension pulse, from whatever cause, is unfavorable as it increases the heart's work and the presence or absence of anæmia (particularly), bronchitis, albuminuria and other diseases greatly influences prognosis in valvular lesions. Thus in old people there is a natural limit due to weakening of the myocardium and an attack of bronchitis will precipitate the most serious symptoms; so also will over-feeding and alcoholic indulgence.

Valvular lesions, which have originated after the middle period of life, are usually the result of various forms of degeneration, and lesions more frequently of the aortic than of the mitral valve, but they are often the direct result of an infection, and when systolic and diastolic aortic murmurs in elderly persons, are accompanied by fever, the prognosis is usually unfavorable.

Aortic disease accompanying degeneration of the arteries is probably of slow development, but the changes have already taken place in the majority of instances of persons seeking treatment, and in double aortic bruits there is always the possibility of aneurism on the sinuses of Valsalva.

Mitral incompetence, indicated by the mitral systolic murmur heard first at about the third interspace and afterwards at the apex, depends on dilatation of the left ventricle, whether from senile heart, or degeneration of the myocardium, or depressing mental emotions or sudden over-exertion.

Valvular murmurs cannot be heard in weakness of the myocardium, due to (1) local or (2) general fatty degeneration. The (1) local form, which is the result of endarteritis or atheroma in the coronary vessels, is extremely difficult to diagnose and occasionally tends to rupture of the heart, while the presence of (2) general fatty degeneration, which is often the result of an acute infectious disease, such as typhoid fever, is manifested by the character of the first sound and of the effect of exercise upon the heart's action. General fatty degeneration of the heart muscle, sometimes found in elderly people, may result in sudden death without the patient ever suspecting his heart was affected.

Attacks of syncope are very grave in elderly patients with symptoms of weakened myocardium; but they are not so dangerous when the patient belongs to a family subject to fainting fits.

When angina pectoris is the result of over-fatigue only or excitement or of indigestion, the attacks may be warded off by removing the cause; and when it occurs in aortic valvular disease, it sometimes runs a protracted course; but if there is marked tension of the pulse during an attack, there is some danger, and the cases which cause the greatest apprehension are those in which the cardiac impulse is slight and the sounds are weak.

In angina, fatty degenerations, prolonged diastole from cerebral anæmia, diseases of the coronary arteries and in all cases where advanced cardiac diseases are accompanied by dyspnœa, dropsy, pleuritic fusion &c., there is a possibility of sudden death, but there is no risk of any of the valvular lesions except aortic incompetence making a person fall down dead.

Prognosis of cardiac neuroses.—Palpitation is hard to cure and may hang on for years, but it is not usually of serious import. The paroxysmal form of bradycardia usually terminates fatally in elderly persons and so also does paroxysmal tachycardia. Arythima is more grave than palpitation; but its gravity depends on whether the cause can be removed or not. When due to alcohol, tea, coffe, or indigestion, careful treatment may cure it; but when it is due to heart failure and Bright's disease, it is a serious symptom: Yet people with Arythima may live for years. Fœtal arythima indicate a very late stage of valvular disease with dilatation due to weakness from fevers.

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WIDAL'S REACTION IN NATIVES OF INDIA.*

By W. C. Brown, M.D.

Penang.

The article on the supposed immunity of Natives of India to typhoid fever, by Surgeon-Major Freyer,[1] reopens a question which has long been of great clinical interest, and deals with it from the advantageous diagnostic basis that has been obtained by the application of serum diagnosis.

The theory that almost the whole adult native population gains immunity from typhoid on account of universal prevalence of the disease in the form of mild and unsuspected attacks in infancy—that, in short, typhoid is so rare in adults because it is so common in infants—is not a new one. It has been propounded by several authorities on Indian fevers, and is referred to in an able article on tropical typhoid by Surgeon-Captain Whitehead.[2] Surgeon-Major Freyer adopts the view that natives, generally speaking, are immune to typhoid fever; and concludes, on what I venture to think is insufficient evidence, that this doctrine of immunity is confirmed by some remarkable experiments, in which he found that the blood serum of healthy natives gave positive reaction to Widal's test. Surgeon-Major Freyer, therefore, advances the three propositions:—

1. That natives of India, generally speaking, are immune to typhoid fever.

* Reprinted from the *British Medical Journal* by request.

1. That a mild attack of typhoid in childhood confers permanent agglutinative powers on the blood serum.

2. That, generally speaking, the blood serum of healthy natives of India gives a positive reaction to Widal's test.

Perhaps it will be best to look at the last of these propositions first, and to see what are the results of the examination of the blood of healthy natives, and the consequent general applicability of WIDAL'S test in India. In venturing a clinical and bacteriological criticism of Surgeon-Major FREYER'S views, I would say that my clinical experience of natives of India has been limited to them as immigrants in the Straits Settlements in their various capacities of merchants, traders, sailors, servants, and coolies. I have, however, made numerous serum tests of their blood, chiefly for diagnostic purposes, and have compared the results with those obtained in Malays, Chinese, Burmese, Siamese, and other nationalities. So far I have not found that the serum reaction of natives of India differs, either in health or disease, from that of Europeans or other races. The sanitary conditions that surround these other Oriental races are little, if at all, better than those of India.

In the appended table of the results of examinations of the blood of 15 natives of India of different castes, the first 8 were consecutive tests for WIDAL'S reaction in the course of ordinary practice, Nos. 2 and 3 being control tests. The remaining 7 were the first of a large number of examinations carried out on healthy natives after I had read Surgeon-Major FREYER'S article. It is difficult in the face of these results to come to any other conclusion than that the blood of healthy natives of India does not possess any special agglutinative power.

The basis on which Surgeon-Major FREYER'S conclusion rests is his acceptance of the theory that a mild attack of typhoid in childhood will confer a permanent agglutinative power on the blood serum, but such a deduction is directly opposed to all the evidence which is before us as to the reaction, and is entirely contrary to the whole theory of serum diagnosis. No hard-and-fast rule as to agglutinative power or permanence can be laid down. In the blood serum of one and the same typhoid patient it varies from day to day. Sometimes it increases with convalescence, sometimes it decreases; before death it is sometimes greater sometimes less; and so with its duration. But a primary characteristic of the reaction is that it is one of infection and not of immunity. The theory that the presence of EBERTH'S bacillus causes the secretion by the blood of an antitoxin which remains permanently in the system after a successful fight with the bacillus, is a beautifully simple theoretical explanation of the reaction, but it is disproved by observation.

The time of the disappearance of the phenomenon after typhoid fever, like the tenacity of the agglutination, varies in different subjects; and according to WIDAL and SICARD[3] it is generally quite gone in two or three months after defervescence; and in one case they observed it disappear completely on the eighteenth and twentieth day.[4] ACHARD and BENSAUDE failed to get the reaction ten days after fever had ceased; and BREWER, THIERCELIN and LENOBLE had the same experience. COURMONT[5] followed the progressive disappearance of the reaction in a child, and found the blood lost its agglutinative power completely in two months. In three children whom C. FRAENKEL attended for mild attacks of typhoid fever, he found no reaction after some days of convalescence; and EUG. FRAENKEL fixed the date of disappearance as the twenty-eighth day.[6] All the evidence at hand goes to prove that in mild attacks the blood serum loses its agglutinative power sooner than in severe ones. In two severe cases in children I have found a positive reaction in the three months after defervescence, and they are

Table of Results of Widal's Reaction in Natives of India.

	Name and Age.	Class or Caste.	Native of	Reaction.	Remarks.
1	M., 18*	Hindu	Madras	Negative	A case of puerperal mania; patient had just recovered from severe puerperal fever.
2	V., 35	Hindu	Madras	Negative	Patient was quite healthy; never had any illness that he knew of except malaria.
3	S., 27	Christian Tamil	Madras	Negative	A control experiment; patient was quite healthy; said he had never been ill in his life.
4	S. M., 35	Mati	Southern India	Positive	Test carried out for diagnostic purposes on the eleventh day of illness; dilution 1 in 14 and 1 in 20; both positive. Patient died with marked symptoms of typhoid.
5	S. C., 29	Hindu	Tanjore	Negative	Test for diagnostic purposes; case turned out to be malarial fever; recovery in four days.
6	Sh. C., 10	Hindu	Coromandel	Negative	Diagnostic test made on sixth day of fever; patient recovered about eleventh day, malarial parasite found.
7	P., 26	Hindu Pariah	Negapatam	Positive	Patient very ill; recovered after severe hæmorrhage from bowels.
8	D., 16*	Christian Tamil	Southern India	Negative	A case of malarial remittent fever; blood examined many times; parasites always present.
9	M., 25	Hindu	Southern India	Negative	Patient was quite healthy.
10	R. S., 29	Sikh	Punjab	Negative	Patient was healthy
11	P., 40	Hindu Pariah	Madras	Negative	Patient was healthy.
12	W. L., 20	Eurasian	Madras	Negative	Patient had hepatitis.
13	S., 19	Hindu	Negapatam	Negative	Patient was healthy.
14	K., 18	Hindu	Tanjore	Negative	Patient suffering from measles.
15	R., 40	Hindu	Madras	Negative	Patient was healthy.

*Females.

still under observation; but in mild cases where the reaction was marked during the course of the fever, I have not known one positive reaction after the fortieth day. Though it is true that a previous attack may detract from the absolute reliability of WIDAL's test, it is abundantly proved that a mild attack of typhoid cannot confer general permanent agglutinative properties on blood serum.

In the examination of blood serum in the tropics the great source of error is the formation of false clumps—a phenomenon which takes place more frequently and more rapidly than in temperate climates, and is due to the different conditions of the surroundings and not to any difference in the blood serums. It is absolutely necessary to use a virulent culture of bacillus, with a dilution of 1 in 10, and to fix a short time limit, say fifteen minutes, certainly not longer than twenty. All the recent evidence before us points to the necessity of shortening the time limit in order to get accurate diagnostic results. Results based on lengthened observations are quite unreliable.

As to the question of the immunity of natives to typhoid fever, more careful diagnosis and more systematic *post-mortem* examinations are showing us that their exemption is not nearly so great as has been supposed. In the older native hospital statistics, published by the Government of the Straits Settlements, typhoid fever had no place; but, in the municipality of Singapore, with a population of about 100,000, the health officer reported in 1896, 186 cases of typhoid; 55 of the worst cases were sent to hospital; and of them 46 died. The diagnosis was veryfied in all, or nearly all, by *post-mortem* examination.[7] Natives have little, if any, less immunity to the disease than acclimatised Europeans, and the universality of typhoid fever and typhoid infection is now fully admitted. And, more, we have the strongest reasons for believing that the Eastern tropics are not only the home but the birth-place of typhoid fever. The universality of malaria and the difficulty of obtaining *post-mortem* evidence in native practice have been the causes of error and serum diagnosis has come only to confirm an opinion which was already partly established.

Typhoid is mostly a disease of acclimatisation, but its prevalence during that period is due to the fact that the mucous membranes of the alimentary canal then offer from a variety of causes a more congenial soil to EBERTH's bacillus than do those of older residents. It is not the case that new arrivals gain immunity by passing through a mild attack of the disease.[8] The acceptance of that theory, and of the permanent agglutination hypothesis, would involve us in the conclusion that not only every adult native, but every European in India, would react positively to WIDAL's test which would therefore be useless. The test has already proved of the greatest value in the tropics, and has elucidated many difficulties in the study of the phenomena of tropical fever.

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A MIRROR OF PRACTICE.

A CASE OF ENTERIC FEVER COMPLICATED WITH DOUBLE PNEUMONIA.

BY ASSISTANT SURGEON E. S. PUSHONG,
Station Hospital, Lucknow.

THIS case, which I venture to publish, had nothing in any one symptom or any one group of symptoms different or striking in comparison to any symptom or symptoms common to any marked case of enteric fever, with the exception that pneumonia presented itself as a complication.

It is more for the system of treatment adopted, rather than the mere enumeration and publication of the clinical features of the case that I have ventured to send the following notes. It would not be out of place here, however, to give the clinical presentations of the case from the time the case came under my observation to the period of convalescence.

On being called in to see the case, I found that the boy, aged 13, had been ailing for about 14 days with fever, his temperature having ranged between 102° and 103°F, occasionally reaching 104°F., at which point I found it the evening I saw the child.

The history given was that the child had felt unwell for a few days before he took to bed, having complained of severe frontal headache, general disinclination for any amusement, and loss of appetite: in short all the preliminary symptoms of a fever.

The fever, which no doubt was but slight at first, then began to show rather an active form, ranging between 102° and 103°F. He had slight diarrhœa for a couple of days, but was constipated when seen by me.

The boy also complained of a troublesome cough, accompanied by slight pain in the chest. I noticed also the breathing was very hurried and shallow in character

This condition naturally directed my first attention to the examination of the chest, where, on inspection, I found all the indications of consolidation of both bases of the lungs.

The peculiar bright-eyed appearance and heavy, necrotic typhoid smell led me to first examine the abdomen, which I found greatly distended, being quite tympanitic on percussion. On passing my hand over the right iliac and applying firm pressure with the palm, and exercising a right to left movement, I was able to get a distinct gurgling, the patient complaining of tenderness.

Notwithstanding the great distension of the abdomen I found that both the liver and spleen were somewhat enlarged.

A few characteristic rose spots were to be seen on the lower abdomen.

Though the temperature had persisted with a marked activity, yet the symptoms classifiable under the heading of "nervous system" were but few, *viz.*, slight frontal headache, restlessness and slight blunting of the perception.

Tongue was quite dry and leathery with a central brown patch, which condition only truly spoke of the extent of ulceration.

I saw the boy three days after and found that the lung was now full of crepitant rales the sputum being still rusty and tenacious. There was no change in the run of the temperature.

It was stated, however, that he slept well and took his nourishment better.

His pulse, which was very weak when I first saw him, had now improved and was much stronger.

The case progressed favorably, there being gradual improvement until convalescence was reached, which covered a period of over four weeks.

Treatment.—The case being recognised as that of enteric fever complicated with pneumonia and the self-limited nature of the case being considered, the line of treatment adopted was that covered by the following words :—

"Keep the temperature within reasonable limits and nurse your patient through."

Adhering to this, directions were left that a powder of Antifebrin grs. ii with brandy ʒi had to be given whenever the temperature rose above 102°4 F, which had to be taken every two or three hours.

A mixture consisting of :—

℞	Liq. Ammon. Acet.	...	... ʒiss.
	Spts. Æther Nitr.	...	... ♏ xv.
	Vin. Ipecac	...	... ♏ v.
	Aqua ad	...	... ʒi.

was given every two hours with ʒi of brandy, and a cough mixture every four hours, *viz.*, with every second dose of the fever mixture, containing :—

℞	Ammon Carbonas	...	... grs. iii.
	Tr. Scillæ	...	... ℥ iv.
	Vin. Ipecac	...	... ♏ v.
	Infusion Senega ad	...	... ʒi.

Both bases were painted with equal parts of Tincture and Liniment Iodine, and chest was wrapped in flannels

The Antifebrin powders of course, accordingly as the case progressed, became fewer and fewer daily until not required at all.

The temperature having towards the end taken on an intermittent type of fever, small doses of quinine were ordered to be given every morning.

Diet.—At first solely milk, but as the case progressed, broths were ordered, with egg-flip in the morning, until gradually solids were allowed.

The case having convalesced, change of climate and the use of Coca wine was recommended.

Remarks.—It has been the seeming general prejudice among a large number of professional men against the antipyretic system of treatment, that has led me to await an opportunity to be able to publish the results of a case so treated, and which has occurred solely under my own care, though I have been an eye-witness in the treatment of no less than fifteen cases of enteric fever occurring under the care of my father, Mr. A. L. PUSHONG, all of which, I am proud to say, have recovered, and to-day bear a living testimony to the sound, yet simple and efficient, line of treatment based upon common sense. I have noticed that the delirium, so common a feature in the severer cases at the middle or end of the second week, did not occur in the cases so treated.

There has been no hæmorrhage, blunting of the perception, sleeplessness, restlessness, that high state of nervous excitement accompanied by muscular tremor on any slight exertion, so often seen in cases of the severer type treated otherwise. In no one instance has there been any unwonted depression caused by antifebrin, which has never been given in doses over three grains and without brandy, though in some of the severe cases during the second week, when the fever has been in full activity, a powder has been even given every hour for several hours in succession ; of course this stage of a rushing temperature rarely lasts over a couple of days, when the fever will be found to begin to loose its activity, by that I mean that a powder which only kept the temperature within reasonable limits (101° to 102°F.) for say one hour, would, when this stage of tending activity be verged upon, keep the temperature down for 2, 3, 4 or 5 hours as the case progressed, so that not only is the powder found to be beneficial in helping to steer the cases through, but is a sure guide as to how things stand ; for one can almost gauge the day from when the fever begins to decline and improvement begins to be established.

I must, however, confess that the period of convalescence may be somewhat prolonged.

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HUGE PUTRID ABSCESS OF BROAD LIGAMENT: THREATENING PERITONITIS : VAGINAL INCISION AND DRAINAGE : RECOVERY.

BY JAMES R. WALLACE, M.D., F.R.C.S.I.,

Fellow of the Obstetrical Society of London, Formerly Resident Surgeon, Eden Hospital for Women and Children, and Resident Surgeon, Medical College Hospital, Calcutta, &c., &c.,

ON the 20th March 1898, I was asked by a medical man in the suburbs of Calcutta to see one of his patients. Mrs. L—, a Scotch lady of 30 years of age, who was suffering from pelvic inflammation. There was a history of a miscarriage of a two months' conception which had taken place two weeks before I was called in. Intermittent bleeding had followed expulsion of the uterine contents, and on the 7th day after the mishap fever set in and the discharges became foul, while at the same time severe pain was felt in the abdomen, and the uterus and its appendages were very tender and surrounded with an ill-defined swelling. When I saw the patient, her temperature was 104°F, the abdomen was tumified and tender, there had been much vomiting all that day, and she was very depressed and low. She was chloroformed and the uterus was quickly dilated with a set of silver-plated Hegar's dilators and the uterine cavity was thoroughly curetted. Several pieces of putrid membranous remnants were removed, and the uterus and vagina were plugged with iodoform and boric acid gauze. There was a remarkable subsidence of pain, fever and vomiting for three days, and during this time the vagina was douched with a solution of bichloride of mercury with which laudanum was mixed. On the 26th March, the pain and

fever returned, associated with a very marked swelling of the abdomen and a filling up of both sides of the pelvic cavity with effusion, which bulged into the vaginal cul-de-sacs. There was also a recurrence of the most distressing vomiting. On the 30th March, fluctuation was evident, and I aspirated the pelvic mass vaginally, and drew off six ounces of thick, putrid-smelling, sanguine-purulent matter. As the patient was very low, and as the abdominal tenderness was very acute, it was feared peritonitis might supervene, so at the suggestion of her regular medical attendant, the patient was brought into town and placed under my care. Next day I found the pelvic mass larger than before, and I decided to make an incision into the centre of it through DOUGLAS' pouch, to insert a glass drainage tube and flush the cavity with boiled water. This procedure was accordingly adopted. About a pint and a half of horribly putrid-smelling pus followed the vaginal incision, and a GREIG SMITH'S glass drainage tube (3" × ½) was quickly adjusted into the opening The pelvic cavity was irrigated and the vagina was gently filled with iodoformised boric gauze. An hour before the operation the temperature was 105°4, there was incessant vomiting, there was marked tympanites, and the patient could not straighten her limbs but kept them flexed to avoid pain She was so exhausted that I feared to give her chloroform, and so the operation was performed without any anæsthetic It was done quickly and the patient bore it most pluckily and well. Within an hour the temperature fell to 100° and it never rose beyond 101° during the three weeks of her subsequent easy and uneventful convalescence Every unpleasant symptom was completely relieved by the operation. Perchloride of mercury irrigations of the vagina were kept up for a fortnight and the gauze packing was continued for a week, though the glass tube was removed on the second day following the operation.

On the 18th April, the patient was well enough to go to her suburban home and she was seen and carefully examined by Surgeon-Lieutenant-Colonel R. HAVELOCK CHARLES, F.R.C.S.I., on this date. There was still some inflammatory deposit impeding the mobility of the uterus, but it was thought the patient might safely pass out of my hands, with the caution that she was to be fairly restful and avoid sexual exercise for at least two months.

Remarks.—This case pointedly illustrates the excellent surgical value of vaginal incision and free drainage in cases of abscess of the uterine appendages especially does it prove that this procedure may obviate the more dangerous operation of laparotomy.

ACUTE ABDOMINAL DISTENSION IN CHILDREN.

DR. GEORGE F. STILL, Great Ormond Street Hospital, in *Paediatrics* for September 15th, 1897, says that this condition occurs as a late complication of diseases, not primarily attacking the digestive tract, and common with bronchopneumonia. While not necessarily a fatal complication, it certainly is a dangerous one and often hastens death. He relates five cases, one of which recovered He gives *post-mortem* reports of the other four, showing in photographs first the abdominal distension, and second the visceral distension after opening the cavity. In one case the distension was in the ascending and transverse colon, in a second in the small intestines, and in the third in the stomach. It should be vigorously combated by position, passing tubes, and by creosote.—*Canadian Prac*

THE

Indian Medical Record.

16th May 1898.

A BILL TO AMEND THE LAW RELATING TO THE MUNICIPAL AFFAIRS OF THE TOWN AND SUBURBS OF CALCUTTA, AND TO AUTHORISE THE EXTENSION OF THE SAME TO THE TOWN OF HOWRAH.

IN the above Bill there are some points of particular interest to the medical profession, to which we think it will be as well to invite attention.

The most important of these will be found in Chapter XXXIII which deals with the "Restraint of Infection." Section 533 is as follows:—(1). Every medical practitioner who treats or becomes cognizant of the existence of any dangerous disease in any private or public dwelling, other than a public hospital, shall give information of the same with the least practicable delay to the Health Officer."

The "cognizant" portion of this section may be disregarded, for it would be impossible to prove cognisance or fix any responsibility on the practitioner unless he was actually treating the case, or brought into connection with it in a professional capacity.

In another way this section is ineffective, for there is no definition of what is meant by a dangerous disease, a dangerous disease is presumably a disease dangerous to life as heart disease, or Bright's disease, but it can hardly be imagined that the Bill contemplates the notification of these diseases

It appears to us that the word *infectious* has been omitted by some oversight, and that the section is intended to refer to *dangerous infectious diseases*: even so there is a difficulty in deciding as to what diseases are to be considered as coming under the designation. Would turberculosis be included, or measles, or whooping cough?

It is obvious that medical practitioners might hold, and would be fully justified in holding, different views upon this subject.

It is the duty of people who draft laws to construct them so that there can be no doubt as to what is intended; to this end it is necessary that all the diseases which are to be notified under this Bill should be specifically mentioned.

This is the course adopted in the English Notification of Diseases Act.

We have looked through the Bill in vain to discover what remuneration is to be made to private practitioners for this extra duty which the Municipality imposes upon them. We can find no mention of any, but we trust that this important omission will be rectified.

It is something of an innovation for a Municipality to bring in a Bill to force people to work without pay, and if the innovation were successful, there is no reason why it should stop at the medical profession. Engineers are very useful to such a body, surely a clause could be introduced by which they would be forced to submit plans

of ordinary quality free of charge; and point the legal profession. We fling a wide field for their labours under this Bill. Surely they ought to give their professional knowledge free at last.

A Municipality that worked on these lines should be very prosperous and show a large surplus at the end of the year.

SHOULD DOCTORS WORK FOR A MUNICIPALITY FREE OF COST.

We have however before maintained, and we are still of the same opinion, that these acts are legally beyond the power of a Municipality, and that they amount in fact to acts of oppression, which it will be the duty of the medical profession to unite in resisting.

A private practitioner is a free citizen, who owes no more to the Municipality than any other citizen; he has gained the knowledge necessary to his position by his own energies and at his own cost: he has adopted the medical profession for the purpose of making his living, and for a Municipality to demand his labors for nothing, is simply to make an attempt to rob him.

The section we have quoted is an irrefutable proof of the value of the services of the medical profession to the safety of the community; it is a curiosity both logically and ethically, which admits the value of one's services and in the same breath demands that they should be given to the community free of charge.

There is no precedent in English law to force a physician to notify diseases without a fee; the fee in England is a small one, but it is sufficient to establish the principle, and the fact of its being a small one makes it the more difficult to understand why it is grudged in the present case.

NON-OFFICIAL DOCTORS ARE NOBODIES!

But to continue. Section 536 runs as follows:—

(1). "When any person, in the opinion of the Health Officer or of any *commissioned* medical officer, is suffering from a dangerous disease," etc.

This section, whether intentionally or not, we cannot say, entirely ignores the private practitioner. Is it intended that the private practitioner is to be considered incompetent to pronounce an opinion as to whether a person is suffering from a dangerous disease or not? The Bill, as it stands, directs "every medical practitioner" to report to the Health Officer. Is the Health Officer then to form the opinion?

If this is the case, the private practitioner is absolved from all responsibility under Section 533 (previously quoted), as he is admittedly incapable of knowing whether a person is suffering from a dangerous disease or not

But if he is not capable of forming such an opinion, why is he directed to report to the Health Officer?

To solve these conundrums is beyond our power. We leave them with our best respects to the framers of the Bill.

REGISTRATION OF BIRTHS AND DEATHS.

In Chapter XXXIV an effort is made to put the registration of births and deaths on a more accurate footing. We learn that the entries relating to the cause of death are in a large proportion of cases wholly untrustworthy. Of the 70 persons who on an average die every day in Calcutta, the returns show that from one-third to one-half have had no medical attendant, and in all these cases the cause of death is more or less a matter of conjecture."

We have to thank the Plague for this sudden interest on the part of Government in the subject of Registration of births and deaths. For years all this has been common knowledge and would in all probability have quietly gone on for another half century at least, but for the unwelcome advent of plague in India.

For the purposes of registration, Calcutta is to be divided into as many districts as the Local Government may think fit, and a registrar is to be appointed to each district. Every registrar must live in the district to which he is appointed.

WHO ARE TO BE REGISTRARS OF BIRTHS AND DEATHS.

Who are to be the registrars? Section 546 says:—"The Local Government shall appoint a person to be registrar." From other sections, however, it appears that the registrar must of necessity belong to the medical profession, for Section 556 imposes upon him the duty of giving death certificates to the best of his ability in cases of persons who were not attended in their last illness by a medical practitioner.

To give this duty to any but a medical man would be simply to revert to the very state of affairs which it is one of the expressed intentions of this Bill to remedy, when the registrars were mere clerks who had no medical knowledge.

WHO SHALL LICENSE?

Section 553 is curious. It is as follows:—"The Chairman may grant a license free of charge to any medical practitioner empowering him to grant certificates of death under this chapter." This seems to imply that a favor is being granted, where such is far from being the case.

The author of this section can know very little about the laws relating to the medical profession if he thinks that a medical practitioner requires the sanction of the Chairman of a Municipality, before he can issue a death certificate.

DEATH CERTIFICATES.

The question of the issue of death certificates for persons who have died without medical attendance will probably turn out to be far from such a simple matter as the framer of this Bill seems to think. It is certain that in many cases a medical man would be quite unable to form an opinion of the cause of death without a *post-mortem* examination, and in such cases we do not know how a medical man can legally give a certificate, nor what power a Municipality has to authorise him to do in Calcutta what in England might land him in the dock.

QUALIFICATIONS AND DUTIES OF LICENSED PLUMBERS.

Chapter XX deals with the question of "Licensed Plumbers." The duties to be performed by these licensed plumbers are much more extensive than those usually performed by this class of artisan. Thus under Section 317, they may prepare plans and estimates for the drainage of premises, they may also carry out and repair drainage works, and they must report on the state of the drains in every house in their "Ward" once a year. We do not see that the title of plumbers is applicable to performing such duties.

They are to be appointed by the Chairman, who under Section 315 "shall grant to *any persons* he thinks fit, licences to act as plumbers" Nothing is said as to the qualifications required from persons appointed to perform these important and technical duties.

Not more than two licenses are to be granted for each ward.

Section 315 (4) seems curious; for by it the Chairman cannot refuse to grant such a license to anyone who applies for it, without giving his reasons in writing for such refusal. This seems to us to be putting an utterly unnecessary responsibility upon the Chairman, and as he may not always be competent to discriminate accurately between the technical qualifications of competing plumbers, we do not quite see how he is to carry it out.

A MUNICIPAL PLUMBING MONOPOLY.

It is more important to observe that under Section 318, various works are mentioned which only such licensed plumbers will be allowed to carry out.

It lays down that, "No owner or occupier of a building or land shall allow certain work to be done by any but a licensed plumber." This appears to us to be a rather arbitrary measure and to be an interference with the freedom which is usually supposed to exist between employer and employed.

It seems invidious to draw a distinction in this way between artisans, all of whom may be equally well qualified, and by so doing to grant a monopoly to a few.

Of course a Municipality is free to choose its own servants, in any capacity; but to distinguish them from others of the same class by granting them licenses is a step that we fear will not meet with the approval of the trade.

UNLICENSED MEDICAL PRACTITIONERS.

In a Bill which deals largely with the safety of the people, we think it an omission that no steps are taken to preserve the public from unlicensed and unqualified medical practitioners. Something of this kind is badly wanted in Calcutta; the poor and ignorant, who are unable to discriminate in such matters themselves, should be protected as much as possible against unscrupulous quacks by the law. It must be remembered too that qualified practitioners are compelled to pay a heavy license fee to the Municipality. This should entail protection of their professional position by the Municipality.

PLAGUE IN CALCUTTA.

ACCORDING to the official announcement made on Saturday, 30th April, the plague has at last entered Calcutta. How it managed to pass all the barriers established to check its approach is still a matter for speculation. There is no evidence to show that it travelled overland, nor to indicate the exact part of Calcutta which first became infected, indeed, the curious thing is that the earlier cases appeared in places widely separated, and amongst persons who had not moved their residence for a considerable time.

The current opinion of the hour that it was imported by means of infected rats from ships is plausible enough, but it is an opinion obviously difficult to put to the test of exact demonstration, and dangerous in the present state of our knowledge, to put too much faith in.

OFFICIAL PLAGUE METHODS.

One of the most important questions around which discussion centres is the preparedness of Calcutta for the reception of plague

For over ten days before the disease was finally diagnosed, suspicious cases had been occurring and the usual precautionary steps taken with regard to them, and it was only natural under the circumstances—and what should have been foreseen and guarded against,—that these precautionary measures and the marked activity amongst those responsible for the public health, should have been interpreted by the people as "proof strong as holy writ," that the dreaded plague was amongst them.

PUBLIC PANIC, ITS CAUSES AND ITS CONSEQUENCES.

The ominous silence of the Government did not help to allay these fears; on the contrary, it provoked a state of gloomy suspicion, in which congenial atmosphere the fertile Oriental mind brooded and imagined dreadful things.

On the 26th of April, it was evident that an unhealthy state of excitement prevailed amongst the natives in Calcutta. On the 28th there was a special meeting of the Municipal Commissioners; and it was confidently expected that some official announcement would then be made, but silence reigned supreme. This policy has been condemned in more than one Calcutta paper of position, and we join with them in expressing our regret, that this opportunity was not taken to make some statement which would have allayed the excited state of popular feeling.

We do not say that a definite opinion should have been expressed as to whether the disease was plague or not; but we hold that if some enlightenment had been given as to the measures to be taken in case it was found necessary to declare Calcutta infected with plague, it would have done much towards checking the wild rumours that were flying about and doing infinite mischief.

The hands of the Sanitary Commissioner were however evidently tied, and his reply, when asked for some definite statement, couched as it was in the most feeble type of stereotyped officialism, that he declined to reply for "Imperial reasons," cannot be considered fortunate.

To this lost opportunity may be credited the panic that ensued; and here again we have a remarkable instance of the failure of the Government to understand the people of the country. If there was one thing they desired to avoid, it was a panic; if there was one thing more than another to which all their aims, means, and ends were directed, it was to allay all suspicion in the native mind and to keep the population in a quiescent state. How well they succeeded may be judged from the fact, that 200,000 persons are estimated to have fled the city, before even the disease was authoritatively given out to be plague. We read of scare and panic, of a short reign of terror, of deserted markets, and of the whole of the lowlier portion of the community deserting their work and flying for their lives.

Had the Government delayed their announcement another day or two, it is impossible to imagine what the result would have been; for curiously enough, as soon as the announcement was made and some of the measures to be adopted published, the panic ceased and quiet was in a large measure restored.

The sinister fact is only too abundantly supported by evidence to which no one can be blind, that it was not the dreadful and desolating disease, it was not the plague the people feared, it was, on the other hand, the wise and beneficent measures adopted by a parental and civilised Government to deal with it and keep it in check; it was the fear, not altogether unfounded, of having their religious and caste prejudices wounded, their customs disregarded, the seclusion of their inner life invaded and their "purdah" violated.

By simply failing to recognise the real source of danger, the Government appeared to have raised up a sort of Frankenstein's monster. Happily the monster was appeased, but not quite in the way that was expected.

The secrets of the narrow lanes of an Oriental city present a dark and inscrutable problem to the European mind, and it is impossible to comprehend the wild state of ferment which must have prevailed amongst the natives of Calcutta, to urge 200,000 of them to rush forth blindly from the city. Trains and steamers were beseiged but were found insufficient, and we read of parties decamping in boats and camping on the banks of the river outside Calcutta. The suffering that such an exodus must have entailed, considering the poorness of the population and the number of helpless women and children, must have been enormous, and behind it all there must have loomed forth the gigantic image of some weighty and indescribable fear.

It is by no means reassuring, or flattering to our system of government, to read in papers, which ought to be well informed upon the subject, that police persecution was one of the evils most dreaded.

There can be no doubt however that there were plenty of scoundrels, who in the dark recesses of Calcutta played upon the terrors of their more simple neighbours, and reaped a rich harvest by their iniquities.

Official Diagnosis of Plague.

It certainly is not flattering to the *amour propre* of Indian medical officials, nor does it redound to the credit of the Government, nor speak much for the interest taken in modern scientific medicine, that in Calcutta, in the capital city of India, there was not a single man who could be relied upon to diagnose definitely a case of plague. In the whole of India there was not a single Englishman deemed competent for this task. So much for the interest taken in, and the encouragement given to, scientific medicine by the Indian Government. Specimens were therefore taken and forwarded to Bombay to Mr Haffkine, and for his opinion the whole of India had to wait.

M. Haffkine declared that he found typical plague bacillus in the specimens sent from Calcutta. Of course owing to want of qualified men this result has not been confirmed, and careful and skillful an observer as M. Haffkine undoubtedly is, there still remains the possibility of error somewhere, or of chance contamination either in Calcutta, Bombay, or *en route*.

At such a time we feel keenly the loss of so skilled a bacteriologist as Dr. D. D. Cunningham, and we cannot understand the delay there has been in filling up his post. It has now been vacant, or as good as vacant, for over twelve months, and the result of such a policy is obvious to everyone.

What is wanted is a man on the spot who can examine cases as they occur, and whose opinion will be accepted without demur Is it possible that the Government cannot find anyone fitted for this duty out of the whole of the highly trained medical officers of the Indian Medical Service?

As to the accuracy of M. Haffkine's diagnosis, we have grave doubts, which we have clearly expressed from the beginning. We have seen a large number of typical plague cases in Bombay, and judging from the clinical aspect of the Calcutta cases, we have no hesitation in expressing the opinion that they are not true cases of epidemic plague.

With reference to "the suspected cases" we saw at the Maniktala Plague Hospital, we have officially reported that they were *not* plague, and also in the case of Mr. Smith, the auctioneer, who has been reported to have died of plague, we have the best reasons for knowing that this was not so.

It is familiar to Calcutta practitioners that a form of malignant fever similar in all respects to these suspicious cases is endemic amongst the poorest and worst housed people in Calcutta. Whether the cases that have created such alarm turn out to be anything more that this, remains to be seen. Judging from the course of events, and the small number of persons affected, we think that our doubts on the subject are fully justified.

From all this it appears that from a clinical point of view, we are of opinion that these cases were not plague. M. Haffkine, from a bacteriological point of view, says they were, and the following question arises, is the mere fact of the finding of this bacillus, sufficient evidence to found a diagnosis of true epidemic plague on?

This is a question of the greatest importance and one that no doubt will find an answer before long. Had the matter been thoroughly followed up and investigated by a competent observer, since Dr. Simpson reported his cases in 1896, there would be less doubt about it now. Plenty of material exists in Calcutta for such research, and in most civilised countries it would undoubtedly have been undertaken, Yet in such a backward state do we find ourselves, that we are forced to confess that this bacillus may have been in our midst all this time without our being aware of it.

Anti-Plague Inoculation.

Inoculation appears to have created quite a scare of its own. It is evidently difficult to understand the native mind and guage what is going on in it. Inoculation is a new idea, it has taken the native by surprise, and has created a very unpleasant state of excitement, which, we regret to say, has not stopped short of serious crime.

The distinction between optional and compulsory inoculation is not understood. Most things are compulsory to the poor, and the native has seldom any chance of exercising his option.

To be offered inoculation as a substitute for segregation, is very like the famous Hobson's choice. The fact is so well known that segregation will be resisted at any price, as it was in Bombay, that the offering of inoculation in its place, actually and virtually amounts to the same thing as compulsory inoculation.

It has been proved in so many places that the natives of all classes will eagerly seek inoculation once its advantages have been made clear to them, that it seems the height of folly to suddenly rush it upon them as it were under cover of a threat. This is the way to create alarm, not to inspire confidence.

We have no objection to inoculation *per se*. We regard it as a very interesting experiment, and we have freely published M. Haffkine's results in our columns and given him all the credit to which we consider that he

is entitled. That the method is somewhat crude cannot be denied, but it is equally impossible to ignore the fact that the results have been beyond expectation. We only trust that if this method is to be at last taken under Government patronage, that it will be introduced with every care and precaution, and that the people will be allowed an absolutely free hand in the matter. To make them understand this will be no easy task.

Plan of Campaign against Plague.

To turn now to the methods to be adopted for the prevention of the spread of the disease. We publish in another place the "Notice" on this subject issued by the worthy Chairman of the Calcutta Corporation, Mr. R. T. Greme, C.S., who has proved himself a truly large hearted yet firm administrator.

It will be seen that house-to-house visitation and segregation are to form the backbone of the defence; the first has been relegated to the care of Ward Committees, the second has been modified with a view to cause as little irritation to the native mind as possible.

Inoculation is to be the main stand by.

Isolation in hospital is to be enforced only where proper accommodation cannot be obtained in the houses of those affected. While the police are to have no power to examine or remove anyone on their own authority.

It is obvious from this that the policy to be adopted in Calcutta is not a policy of option, it is a policy that has been forced upon the Government, and the only lesson that has been learnt from the Bombay experience, is the inadvisability and even danger of adopting and endeavouring to enforce methods, which are foreign and distasteful to the native mind.

We are glad to see that Sir John Woodburn, our new Lieutenant Governor, is inclined to yield to native prejudices in every possible manner, and we congratulate him upon this attitude. At the same time it must be remembered that the terms of the Venice Conference form the "*Ultima Thule*," beyond which no yielding is possible. To infringe these would be to inflict ruinous losses upon the whole country.

Classical Plague Precautions a Failure?

The Health Officer of Calcutta has published an admirably reasoned note on the subject of prevention of plague in which he shows that the three classical methods of notification, isolation and disinfection, have failed to check plague in India. Notification, he says, must fail because the people will not notify. "The more stringently the measures (of segregation) are enforced the more pains do they (the natives) take to conceal their cases, and even search parties supported by all the powers of the police and military, do not avail to discover more than a moderate proportion of them."

Again he says:—"The conclusion I draw from all this is, that the system of notification, isolation and disinfection has proved, and is bound to prove, a failure in dealing with an epidemic of plague in a city, and that we must look for some other measures which will at least give some prospect of success."

These opinions are looked upon by many as retrograde, and however admirable the reasoning, they do not command themselves to all. We trust the opportunity will not arise of putting them to the test.

THE ANNUAL REPORT OF THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA, 1896.

General Remarks.

This Report is as usual somewhat belated, but considering the large and valuable amount of information it contains, it is perhaps invidious to find fault with it on this score.

The scope of this volume is ambitious, too ambitious it has appeared to us for some time. It purports to give us the complete vital statistics of four distinct classes throughout the whole of India: (1) European Troops, (2) Native Troops, (3) Jail Population, (4) General Population.

The statistics of the first three are reliable, those of the fourth are not. Statistics which are not reliable are useless, yet 140 pages of this Report are taken up with statistics, etc., of the general native population, which, owing to the defective and primitive state of registration of diseases deaths and births, possess no substantial value.

Further, when we consider the fact that the Sanitary Commissioner of Madras, Bombay, etc., each issue separate reports for their own districts dealing with this branch of the subject, and dealing with it in greater detail than the Sanitary Commissioner for India can possibly do, we are driven to the conclusion that the Report before us would lose none of its value, and might even reach us sooner, were all this matter excluded, and complete and reliable statistics only admitted to its pages.

As we move onward, and registration becomes more complete and accurate amongst the natives of India, it is certain that the time will come when a single volume can no longer meet the requirements of such a country as India with its teeming millions, and when more decentralisation will be found absolutely necessary.

Judging from the length of time which it takes to prepare the Report at present, we are inclined to think that that time, if not already here, is at all events near at hand.

The Statistical Map.

The first thing to be noticed in the Report for 1896 is that the map, which forms an important feature of these Reports, has undergone an alteration. It has been considerably enlarged, and the boundaries of the geographical groups and sub-groups are now distinctly outlined. The map is, as usual, printed chiefly in different tones of green, and by a curious oversight, which will be no doubt rectified next year, there is nothing to indicate the fact that these tones are used to present graphically the mortality from cholera throughout the country.

This omission might lead us to imagine that the people of Hindustan were the healthiest in the world; for according to the map, the highest death-rate, corresponding with the deepest shade of green, is only 3 per 1,000. When, however, we know that this figure is intended to present the mortality from cholera alone our ideas alter.

Geographical Groups.

These geographical groups are a hideous mistake. The object of this Report is to throw as much light as possible upon disease, no matter from what aspect the subject is approached, not to teach geography.

a mere geographical boundary can have no possible connection with any branch of the subject. Climate, as far as we know, is the over-ruling power which stamps its sign manual upon the diseases of a country; these groups or divisions then should be *climatic not geographical*.

It is many years since Dr. Balfour first started this idea and tried to carry it out; and it is a pity that it has been permitted to lapse into oblivion since his day.

The importance of this matter will be easily grasped when we say that these geographical groups form the foundation upon which all the vital statistics of India are constructed, and the basis of every system of classification.

In some cases these geographical groups correspond fairly well with climatic conditions; in others they are wildly astray. Take group VII, which contains both Karachi and Peshawar. What have these places got in common that they should always be found side by side and the incidence of disease in them tabulated together? On a par with this would be the method of studying epidemiology by mixing up the diseases of Rome and London and endeavouring to trace out some of the laws which regulate epidemics from the result.

On page 45 we have a table showing the incidence of enteric fever in the geographical groups. We take it merely as an example of the fundamental importance given to these groups throughout the Report. We read: "It (the table) shows that groups V, VI, VIII, and XII are especially apt to have high ratios of admission from enteric fever, etc." Considering that, as we have shown, each of these groups may include many different places, differing in toto from each other in all those conditions which may be held to influence enteric fever, and only united by a geographical boundary which is either accidental or purely arbitrary, what real information does such a table give, and what light can it be expected to throw upon the many problems connected with the etiology of disease?

It is a subject of regret that when, as in the present Report, some alterations were made in these geographical groups, they were not altered out of existence, and a more rational division adopted in their place.

Meteorology.

The meterological data are excellent and ample as far as they go, but we here encounter the same want of system, the same want of a leading idea.

We are given, and have been given for many years, the meteorology of thirty-four stations in India, but upon what system are these thirty-four stations selected?

If it is answered, to instruct readers in the general meteorology of India, we would reply that this is much better done in the Reports of the Meteorological Department.

But no, the object of these meteorological details is, or should be, that they may be readily consulted in connection with the statistics of disease which occupy the greater part of the volume. For instance, supposing any one wanted to demonstrate under what exact meteorological conditions an outbreak of influenza had occurred at some station, it would certainly be very convenient to find all the materials in the same volume, and if the station was a large and important one, he would naturally be surprised if it was not included in the thirty-four whose meteorology is given year by year.

As it is only the statistics of the troops and jail population which are accurate, the importance of the stations must depend entirely upon the number of the troops or the size of the jail population.

The four following examples will serve our purpose, though they by no means exhaust the list; two are places where meteorology is unnecessarily given; two, on the other hand, are large stations where it is omitted.

We allude to Narayanganj, Sibsagar, Poona and Quetta. In the first there were neither European troops, Native troops or Jail; in the second there were no troops and the average annual strength of the Jail was only 59; in Poona, on the other hand, the average annual strength was as follows:—European troops 2,067, Native troops 2,686, Jail population 1,474, and in Quetta European troops 2,815, Native troops 2,522, Jail population 42.

There can be no doubt on the point, that the meteorology of the last two would be of more interest to the readers of the Report than that of the first two, yet it is the first two that are given. In this matter there is plenty of room for alteration and improvement, as will be readily admitted when we further mention that no meteorological details are given for Rawal Pindi, Umballa or Secunderabad.

Original Research.

The amount of original work carried out under the auspices of the Indian Government is but small, and it is further to be regretted that small as it is, it should be buried in the "Scientific Memoirs by Medical Officers of the Army of India," and not printed in this Report. We say buried advisedly, for few though the readers be who dip into the formidable looking Annual Report of the Government of India, they are probably numerous compared to the fraction who ever see these same "Scientific Memoirs"

We know as a fact that in one at least of the three great libraries in the British Isles, these memoirs cannot be obtained.

Statistical Tables.

It need hardly be mentioned that the improvements introduced into these latter in 1895 is continued. For completeness, for the amount of information conveyed and for the manner in which it is classified these tables are beyond praise; they are as complete as they could possibly be.

These tables and the meteorology as far as it goes are the most, if not the only, important and trustworthy portions of the Report.

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THE LIFE AND TIMES OF THOMAS WAKLEY, FOUNDER OF THE *LANCET*.

Certainly not the least interesting portion of Wakley's life is his career as Coroner for West Middlesex to which office he was elected on the 25th February 1839, and which he held until his death—10 years after his Parliamentary career came to a close.

Wakley was the first to introduce the notion that the post of Coroner should be occupied by a medical man; in the columns of the *Lancet* he published a series

of articles ably setting forth his reasons for this opinion, and regretting the state of universal and well merited contempt into which the Coroner's court had fallen; at the same time he lost no opportunity of quoting at length all cases that came under his notice in which there was a miscarriage of justice, owing to the want of medical knowledge on the part of the Coroner, who at that time was invariably a member of the legal profession.

Some of these cases form interesting reading, thus in one case where the jury at the express direction of the Coroner returned the pious but meaningless verdict of "Death by the visitation of God" all the evidence pointed to the most human agency in the matter. This was a wholesale catastrophy due to arsenic poisoning.

A family circle having partaken of a particular pie, two died at once, a third some twenty-four hours later, a fourth was exceedingly sick. The remnants of the pie were thrown into the yard, and some fowls who ate it died there and then. The bearing of all this escaped the Coroner, who obtained from his jury the verdict he desired. The bodies were afterwards exhumed and death found to be due to arsenic poisoning.

In another case an inquest was held on the body of a woman who had died from cholera, and the jury under the direction of the Coroner, returned a verdict of manslaughter. The testimony of four medical men, who had examined the body, availed nothing against that of three children, one of whom stated that the deceased was "knocked over" an iron railing, while a second asserted that she was "pushed against" an iron railing, and a third omitting the railing swore that the victim was simply knocked about.

Immediately on entering office WAKLEY, with characteristic energy, proceeded to set his court in order. Every death, the reason of which was not apparent upon the face of its circumstances, was made the subject of an enquiry, and in every enquiry, where the facts required medical elucidation or where the court required medical advice, a qualified practitioner was summoned and, if necessary, a *post-mortem* examination was made.

It was found that the beadles whose duty it was to summon the jury were not above taking bribes to let those able to pay escape the irksome duty of serving; WAKLEY declared that he would not have his court made a mockery by the quality of his juries, so he appointed an officer of his own to replace the beadle and directed him to summon fit and proper persons and take no denial.

Again he was determined that his court should be conducted with decency and dignity; he put a stop to the ribaldry and tipsy familiarity which disfigured the proceedings of many coroners' courts and insisted upon a sober jury as well as a decent one. Counsel, Solicitors, witnesses, etc., were made to understand that contempt of court was as serious a crime before a Coroner as before a Judge or even a Chancellor.

Reasonable as these innovations were, they did not please everybody, and WAKLEY'S enemies were not slow to take advantage of the fact. The authorities at hospitals, lunatic asylums, and poor-houses were also opposed to the new Coroner, WAKLEY had been unsparing in his criticism of the administration of these places, and it was feared that he would take advantage of his position to be revenged upon them.

In September 1839, he issued certain instructions to the constabulary of West Middlesex, which roused excitement throughout the country and led to a special meeting of the Middlesex magistrates and later to a Parliamentary inquiry.

We need not further enter into this matter than to say that the tenor of these instructions was entirely misconstrued, and that the result of these enquiries was not only to vindicate his character, but to materially strengthen his position.

The most sensational inquest it was ever WAKLEY'S duty to hold was on the body of Private WHITE of the Seventh Hussars, who on June 15th 1846, at the Cavalry Barracks, Hounslow Heath, received one hundred and fifty lashes, administered by two regimental farriers in pursuance of a sentence pronounced by a District Court Martial.

WHITE took his flogging manfully in the presence of his Colonel and Dr. WARREN, the Regimental Surgeon; he then walked to the station hospital, where he remained till the day of his death—July 11th following.

The official report of his death, signed by three Army Surgeons, was as follows:—"Having made a careful *post-mortem* examination of Private FREDERICK WHITE of the Seventh Hussars, we are of opinion that he died from inflammation of the pleura and of the lining membrane of the heart; and we are further of opinion that the cause of death was in no wise connected with the corporal punishment he received on the 15th of June last."

At the inquest it became known that no examination had been made of the deeper tissues of the back. Accordingly it was postponed, and Mr. HORATIO GROSVENOR DAY, a surgeon totally unconnected with the case, was directed to make a further *post mortem* examination.

Through some misunderstanding, when the court again assembled, it appeared that he had omitted to examine the spine and deep muscles of the back. Accordingly a second adjournment was made, and Mr. (afterwards Sir) ERASMUS WILSON was deputed to perform this task.

Mr. WILSON found the deepest layer of the muscles in a state of pulpy disorganisation. He considered that the pulpy softening of the muscles was due to their excessive contraction during the agony of punishment, and he had no doubt that this was responsible directly or indirectly for the inflammation of the contents of the chest.

It was his opinion that WHITE would have been living had not the punishment been inflicted. He had no doubt whatever on the point.

The result was that the jury found that WHITE died from the mortal effects of a severe and cruel flogging of one hundred and fifty lashes, etc., and added a strong rider urging the abolition of flogging in the Army.

The greatest excitement prevailed on the announcement of this verdict, and soon after reforms were introduced, bearing on the subject of flogging in the Army. So extensive were these reforms that when in 1881 the Army Act formally abolished the practice, few knew that it was still sanctioned by the law of the land.

It is particularly interesting to learn that CHARLES DICKENS once sat on a Coroner's jury under WAKLEY, and has left us his impression of the way in which he performed his duty.

The subject of the inquiry was the death of an unfortunate infant whose mother had committed either murder or the minor offence of concealment of birth. DICKENS was touched by the helpless and miserable appearance of the girl. "I took heart," he says, "to ask this witness a question or two which hopefully admitted of an answer which might give a favorable turn to the case. She made the turn as little favorable as it could be, but it did some good; and the Coroner, who was nobly patient and humane (he was the late Mr. WAKLEY), cast a look of strong encouragement in my direction. I tried again and the Coroner backed me again for which I ever afterwards felt grateful to him, as I do now to his memory." The result was that the conviction was for the minor offence of concealment only.

With DICKENS' estimate of WAKLEY as a Coroner this section of his career fitly closes. WAKLEY himself would have desired no other critic, and having earned DICKENS' praise would have considered that no higher eulogy could possibly be bestowed upon him.

COMMENTS AND NEWS.

ABUSE OF MEDICAL CHARITIES.

THE Hospital Reform Association, with DR. J. WARD COUSINS as Chairman of the Council and Mr. T. GARRETT HORDER as Honorary Secretary, is doing good work in inquiring into, and suggesting remedies for the well-known abuses which exist in connection with hospitals and other medical charities.

At the annual meeting held in London on the 19th January last, it was stated that an Investigation Committee had been appointed to report on the Manchester medical charities. Investigation had been attempted at Brighton but so far it had not met with much encouragement from hospital managers there. The managers of the large general hospitals in London had appointed a committee to draw up a scheme for the better administration of medical relief in the out-patient and casualty departments.

The following recommendations have been adopted by the Committee of the Association :—

RECOMMENDATIONS

1. That in the casualty department of the general hospitals only cases of urgent importance should be attended to.

2. That in the out-patient department patients bringing notes from medical men should have *cæteris paribus* a prior claim to treatment. That a resident physician should be appointed whose duty it shall be to see all out-patients in the first instance and select those that require immediate treatment and decide which do not require hospital treatment. That after patients have received "first aid" their circumstances shall be inquired into by a competent officer. That the honorary medical officers shall not be required to treat more than twenty new cases at one sitting.

3. That the circumstances of all in-patients, with the exception of cases of accident, &c., should be carefully inquired into before admission.

4. That in the case of well-to-do people who are admitted to hospitals in consequence of accidents, &c., the hospitals should have the power at their discretion of recovering adequate fees for attendance.

5. In the case of small provincial hospitals that the plan adopted at the Oldham and Dorchester Infirmaries be recommended for trial.

6. That both in the large general hospitals and in the smaller ones out-patients coming from outside districts should be requested to bring notes from medical men before being treated.

7. In the case of special hospitals (*a*) that payments by patients should cease; (*b*) that the eligibility for free treatment should largely depend on the recommendation of private practitioners; and (*c*) that some provision should be made outside the hospitals for people who are in a position to pay a reduced fee but are not in a position to pay the ordinary fee of specialists.

We think that this Association is deserving of the thanks and support of all private practitioners, and feel sure that in the future it will excercise a large and beneficial influence for the good of the profession.

AMERICA.

As we have before remarked, the question of hospital abuse has reached an acute stage in America, the following resolutions passed by influential bodies may be of interest to our readers as showing the steps that are being taken towards reform in that country :—

BOSTON MEDICAL SOCIETY.

Resolution.

"*Whereas*, the unrestricted abuses of medical charity in the great hospitals and dispensaries of Boston is being seriously complained of by a large number of general practitioners; and whereas, the State has granted charters to these hospitals and dispensaries for the definite purpose of giving medical and surgical care and treatment to indigent persons within the city and commonwealth; and whereas, the Boston Medical Society, individually and collectively recognise, with every feeling of sympathy, the rights and just claims of some of our citizens to the benefits of public and private charity, and will not be found wanting in generosity in whatever may tend to foster the moral, social, and physical well-being of the sick, the poor, the destitute, the lowly, the worthy, and the unfortunate; and whereas, large numbers of persons, of both sexes, frequently, daily, and repeatedly receive medical and surgical advice and treatment gratuitously for numerous cases of minor surgery and ordinary illness who are believed to be financially competent to pay moderate fees; and whereas, the time, facilities, and attention at the dispensaries being necessarily limited that which is received by the well-to-do and the undeserving is in that proportion, withheld from those who, by the chartered rules of these institutions, are justly entitled to their benefits; and whereas, the practitioners of medicine and surgery of any community, who have duly graduated from accredited medical colleges, and have incurred the expense of locating in such communities, naturally and justly feel their present and prospective rights and privileges are wrongly encroached upon by the abuses now in practice in connection with medical charities. Therefore *resolved*, that it is the opinion of this society that some means can be found to check or modify this formidable evil; and, resolved that an urgent call be made upon all such members of the profession who are in sympathy with the movement, and have at heart the best interests of the medical profession, to render such moral assistance and financial support in the adoption of such measures as will tend to eradicate these evils, abuses, and practices.—M. GERSTEIN, M.D., *Secretary*."

ASSOCIATED PHYSICIANS AND SURGEONS OF THE CHARITY HOSPITAL, PHILADELPHIA.

AT a meeting held on 5th February DR. SINKLER reviewed the report of the State Board of Charities and showed that during 1897, there were treated at the hospitals and dispensaries of this city 397,417 patients, or about 33% of the entire population.

The following resolutions, were unanimously adopted :—

"*Whereas*, the abuse of medical charities in the various hospitals and dispensaries throughout the city and State has assumed so great proportions, and has become such an injustice to the actual worthy poor, as well as to the medical practitioner, and

"*Whereas*, the Philadelphia County Medical Society being the representative body of this city and being, therefore, the most competent to consider the proper action to correct the abuse, be it

"*Resolved*.—That we request that a meeting of the society be called for the discussion of this subject, to which shall be invited the members of the Board of Charities and Correction, and the Boards of Managers and the trustees of the different hospitals and dispensaries throughout the city, to co-operate in the discussion of the subject, to suggest such legislation as may be deemed expedient, and to formulate a method for the restriction or abatement of the evil.

"*Resolved*.—That a committee of five be appointed by the President of the Society to present these resolutions to the Philadelphia County Medical Society."

ONE OF OUR MEDICAL HEROES.

The pleasant task of rescuing the name of PUGNET, a French physician born at Lyons in 1756, from oblivion has fallen to a Russian M. LE PROFESSEUR SKONITSCHENKO.

PUGNET received an excellent education, and was first destined for the law, then for the church, finally for medicine. He greeted with enthusiasm the Revolution of 1789, and was unshaken in his attitude towards it, although his father, mother and brother fell victims and he himself was sentenced to the guillotine, the timely death of ROBESPIERRE alone saving him.

Ardent in the cause of suffering humanity he volunteered for service in Egypt, under NAPOLEON.

It was difficult to work while in momentary fear of death, but the young physician knew no fear. PUGNET carried aid to the wounded amidst a shower of bullets with a calmness that was astonishing. The troops retired. PUGNET remained alone, plucking the wounded from the hands of the Mamalukes. NAPOLEON looked on in astonishment.

Plague soon appeared in the army and men died in thousands. PUGNET was transferred to Syria, where its ravages were most intense. The hospitals were overflowing, the sick sought a resting place wherever they could find it, the resources were exhausted, food fell short, the physicians died and the inhabitants fled.

Unaided PUGNET put matters to right and established a provisional hospital in a convent at the foot of Mount Carmel (near the town of Acre). The order to convey the sick to Acre (without any transport being supplied) reduced him to desperation.

Leaving Acre on foot, with his sick, he fell ill on the way but quickly recovered. The epidemic was so severe there that not a single doctor survived.

Fortunately PUGNET was transferred to Cairo, where NAPOLEON had appointed a Commission to inquire into the cause of plague M DESGENETTES, Médecin en-Chef of the Army, aided by NAPOLEON, endeavoured for a long time to conceal the nature of the epidemic On this account the Commission, which had no doubt on the matter, did not wish to have M DESGENETTES as President

NAPOLEON at this flew into a passion and upbraided the physicians, saying that they would sooner destroy the Army, their country and their fellowmen than renounce a single dogma of their absurd science.

PUGNET alone had the hardihood to stand forth in defence of the honor of the physicians.

This is what he wrote to NAPOLEON —

"M. le Général! Vous êtes conquêrant, Vous feignez de vous soucier de la gloire de la patrie, au fond cependant Vous sacrifiez Vous concitoyens a Vos interets, à Votre passion insalutre. Vous resterez le même pour toujours. Vous allez détoutre tout ce qui Vous tombera sous la main Au moins n' offensez pas certaine classe d'hommes, qui n'ont rien de commun avec Vous.

Ils ne désirent pas de gloire à force de violence, ils ont écrit sur leur drapeau l'amour de l'humanité, ils ont consacré leur vie à traiter les blessures que Vous faites Vous autres"

(Sir, you have been victorious in battle, you pretend to care for the interests of your country, in truth however you sacrifice your fellow citizens to your own interests and to your unhealthy passions. You will always be the same. You are destined to destroy everything that falls into your hands.

Spare at least from your reproaches a class of men who have nothing in common with you. They do not desire glory at the cost of violence, they have inscribed upon their standard the love of humanity, [illegible] to heal the wounds that you [illegible] made.")

This letter deeply affected NAPOLEON; for he [illegible] the noble heart of this man and promised him [illegible] should he ever require it

Four years later PUGNET heard of the miserable [illegible] which the French troops in the East Indies were [illegible] by yellow fever, and all the arguments of his Commanding Officer could not shake his desire to hasten to their relief, being forbidden by his Commanding Officer, he recalled NAPOLEON's promise.

NAPOLEON hesitated to give his consent, but the persevering prayers of this fanatic of self-abnegation gained their end, and PUGNET set off without loss of time.

Death reigned supreme, men in perfect health became sick and died in an hour. PUGNET was attacked, but he was spared, wonderful energy marked his labor on the Island of St. Lucia, and in consequence of the measures he took the epidemic came to an end

PUGNET had begun a scientific work, but the blocade of the Island by the English brought it to an end. PUGNET was made a prisoner but was soon released.

After so much suffering PUGNET was very well pleased to be transferred to Dunkerque, a small town where he spent his leisure moments in arranging the great mass of scientific materials he had collected His life was not an idle one; for there were many who sought his assistance or the fruit of his experience, and to assist a fellow creature appealed more to PUGNET than to create a theory, no matter how attractive.

For 17 years he pursued this disinterested course, refusing all recompense and ruining himself by the purchase of drugs for his patients At the end of this time his spirit was unchanged but his body demanded repose In 1822 he retired from Dunkerque and settled in Biel It was in vain that he sought rest, his fame had proceded him.

The sick flocked to him from all sides; this continued for 22 years. In giving counsel to the suffering he forgot his own troubles, and so he continued to receive his patients even on his death bed

In November 1844, PUGNET, for the first time ceased to receive the sick, but the reason for this was a serious one PUGNET was dead

This man who never ceased to render aid to suffering humanity lived 79 years He assisted thousands in their misfortunes, he restored thousands to life, but . ., they were only men, and with their existence the glory of this grand man passed away

The author who discovered in the history of medicine so choice an example of the love of humanity and of true self-abnegation, deems it his duty to make it known to the whole world, as a botanist desires to make known some rare plant that he has discovered —(JANUS)

HOW HAFFKINE NOBBLED THE CALCUTTA PLAGUE BACILLUS. WHAT DID HE FIND?

WRITING in his excellent journal, our learned contemporary, DR MAHENDRA LAL SIRCAR, M.D, C.I.E., says:—

"It is not a little remarkable that 'the Health Officer, after making special inquiry into the point, has been unable to trace any connection between the local cases and the arrivals from infected areas,' who are kept under observation. It will be remembered that Dr. SIMPSON found his first case in a man recently arrived from Bombay, and this case was satisfactorily shown to be a case of simple venereal bubo. But now we have cases which are strongly suspected to be cases of plague, and yet none of them could be discovered to

have come in contact with men arrived from Bombay or other infected places. But as M. HAFFKINE has pronounced the cases to be plague, their origin must be traced to infection from some source or other. And what better source could be found than rats? So the responsibility of introducing plague into Calcutta has been transferred from the shoulders of men to those of rats. 'Rats, however,' says Mr. Risley, 'have been found dead in considerable numbers in the press room of the East Indian Railway and in godowns connected with the coasting trade with Bombay, and it is possible that the infection has been imported by these animals.' We are, however, not told how the said rats could have migrated to the places where the cases occurred unless we are to believe that they infected their brethren in the said places by some sort of wireless telegraphic influence!

"It appears that 'cultures were made from the important organs' of only one case, namely, the first case, *after* death; and it was upon an examination of these cultures that M. HAFFKINE'S opinion was based. It will have to be remembered that these cultures were sent from Calcutta to Bombay, and that they were examined in a laboratory where the anti-toxine serum from plague bacilli are perhaps every day being prepared. We do not say for a moment that necessary precautions were not taken to keep the cultures from external contamination, and that an expert like M. HAFFKINE could make any mistake while conducting the examination. But we are bound to say that, considering the vast commercial and other no less vital interests of the metropolis of British India at stake on the opinion pronounced, a sober scientist should have hesitated before passing that opinion from a single instance. And we are bound to say also that Government should have waited for further proof before accepting that opinion as final.

"If Government had not among its numerous medical officers present in Calcutta one single individual competent to make bacteriological examination of plague and other cases, if it had no other person to depend upon in these matters than M HAFFKINE, it should have asked the Professor to come down to Calcutta to make examinations on the spot, so that they might be free from all fallacy. How we miss Dr. CUNNINGHAM at this juncture.

"In reply to the specific question asked by the Hon'ble NARENDRA NATH SEN, the Hon'ble Mr. RISLEY remarked: "Finally, I may explain that the third question asked by the Hon'ble Babu NARENDRA NATH SEN is based upon a misapprehension of the scientific aspects of the question. *Only one plague bacillus is known.* It was discovered almost simultaneously and independently by KITASATO and YERSIN during the Hong-Kong epidemic of 1894. Their discovery has been verified during the present epidemic in India by M. HAFFKINE, Mr. HANKIN, various Medical Officers of the Government of India, the members of the scientific missions sent to Bombay by the Governments of Germany, Austria, Russia, and Egypt, and by other foreign scientific authorities. But this bacillus produces three different forms of plague—simple, septicæmic and pneumonic—according as it attacks different parts of the human system. The bacilli discovered by Dr. SIMPSON were not plague bacilli at all. They were common atmospheric bacilli, and Dr. CUNNINGHAM showed conclusively that they did not come from the blood of the persons supposed to be suffering from plague, but were the result of contamination by air.

"It may be true as Mr. RISLEY said that M. HAFFKINE Mr. HANKIN, the members of the scientific commissions of various Governments and other scientists, have in a general way confirmed the identity of KITASATO'S and YERSIN'S bacilli. But it is equally true, [illegible] *British Medical Journal*, that GRAHA, a countryman of KITASATO, did differentiate the bacilli of the latter from those of YERSIN, and did show his inclination to believe in YERSIN'S bacilli being the pathogenic microbe of plague. *It is also a fact that in plague patients other forms of bacilli than the typical ones described by Kitasato,—forms almost spherical and even chains more or less long,—are not unoften found.* In making bacteriological examination of the contents of lymphatic glands and other organs of the blood, and of the excretions of plague patients, these various forms have to be borne in mind, and we ought to be able to say which form is predominant. Again 'The bacilli found in the blood and in buboes of plague patients are, according to AOYAMA, another Japanese authority, *not identical*. The latter differ in form from the former, and stain by GRAM'S method. According to Dr CROOKSHANK, —'there is no doubt that the micro-organism which was found in blood is very similar to the bacillus of fowl cholera, and *it is quite possible that the so-called plague bacillus is really identical with the bacillus of hæmorrhagic septicæmia*, and THAT THE REAL NATURE OF THE CONTAGIUM IN BUBONIC PLAGUE IS UNKNOWN.'

We leave our readers to judge on which side the misapprehension lies. Bacteriology is yet in its infancy, and to base the diagnosis of disease *on bacteriological evidence alone* may be dangerous both positively and negatively. As regards the cases reported by Mr. RISLEY we are strongly inclined to concur in the opinion of the "experienced local practitioner,' alluded to by Mr RISLEY, 'who considered the case (the first one at Kaiaitola) to be one of septicæmia of a type known to him as not uncommon in Calcutta." Indeed, we go so far as to say that if the cases reported were cases of bubonic plague, then we have had the disease long in our midst, and it is necessary, therefore, to have the bacteriological diagnosis of plague thoroughly revised."

THE SYMPTOMS FOLLOWING INOCULATION FOR PLAGUE WITH M. HAFFKINE'S PROPHYLACTIC FLUID.

THE *Lancet* (London, 2nd April 1898) says —"As might be expected, the symptoms following M. HAFFKINE'S prophylactic inoculation vary considerably in different individuals. There are many symptoms, however, which are more or less common to all. It would be likely also that the chief symptoms would resemble in a very minor degree those of plague itself. There are, however, symptoms in plague which have no representatives, so to speak, among the symptoms following inoculation. The first indications of systemic affection occur within six hours after inoculation and consist of a sensation of chilliness, with headache, a rise of temperature and pulse, and a general feeling of malaise. There are no local symptoms at first beyond perhaps a slight red blush at the site of inoculation. The general symptoms increase and continue generally for two or three days. Vomiting sometimes occurs and occasionally diarrhœa. The temperature seldom rises beyond 103°F, more frequently it is below 102. Weakness is sometimes very marked and the pulse is feeble. Headache is often very severe. Locally an inflammatory infiltration develops which becomes extremely tender. This extreme tenderness is as characteristic after inoculation as that of the enlarged glands in plague. No enlargement of the adjacent lymphatic glands occurs and only very occasionally does suppuration ensue at the site of inoculation. Desquamation of the cuticle over the inflamed area frequently follows. The local symptoms linger for several days after the patient has apparently recovered his usual health, which is most commonly in from four to eight days. The

local and general symptoms are sometimes very slight, whilst at other times they are not only very severe but last perhaps eight days or more and are followed by considerable weakness.

"The less frequent symptoms, perhaps depending upon personal idiosyncrasy, are very interesting. The minor complaints are joint pains without any swelling, lasting perhaps a fortnight. There is an erythematous rash more or less all over the body and sometimes a distinct urticaria is seen. No papules or pustules have been observed. A certain amount of anæmia and emaciation occurs in a few people, and some complain that they have never felt well since the inoculation. General weakness, loss of appetite, and constipation for some little time afterwards have been more frequently complained of, and a weakness in the lower extremities has been occasionally observed. A few people seem to develop mental excitement and a feeling of unrest: others become irritable in temper for a week or more. Confusion of ideas, a nasty clammy taste in the mouth, and a dry cough lasting for about a week are comparatively common. Nursing mothers have been inoculated without any disturbance to the child and pregnant women have not developed any untoward symptoms. The menstrual period seems sometimes to be anticipated, and if the flow has commenced at the time of inoculation, it is subsequently increased in quantity. Sexual excitement has been mentioned as having occurred in a few cases.

"It is not surprising on comparison with the effects of other toxin feverish attacks to find that certain ailments should be actually improved. Some asthmatic patients seem considerably relieved and even apparently cured for several months by this inoculation. Chronic eczematous conditions, especially in children, appear also to derive some benefit. Some apparently healthy people have even voluntarily stated that they have improved in their general health.

"Such are the symptoms following what is practically a mild dose of the toxin developed by the artificial culture of the plague bacillus. The severer symptoms of plague itself are probably explained by the more frequent and larger dosage of the toxin into the general circulation and perhaps to the actual presence of the bacilli in certain parts. The enlargement of the lymphatic glands so characteristic of plague appears to be due to the presence of the bacillus, as it does not occur after inoculation. Blebs on different parts of the body as well as the cellulo-cutaneous infiltration followed by sloughing, both of which are common in plague, have no representative symptoms after inoculation. The so-called pulmonary variety of plague, attended by extensive lobular pneumonia and œdema, with the presence of bacilli in the sputum, is also unrepresented among the symptoms following inoculation. The headache, the irritability, the mental confusion, the chilliness (which in plague itself is a frequently recurring symptom), the vomiting, the joint pains, the weakness, and the general symptoms of adynamic fever which follow inoculation are all prominent symptoms of the disease. The preparation of M. HAFFKINE'S prophylactic fluid, as well as the statistics relating to plague inoculation, have been described elsewhere. It is sufficient to state that the dose injected for adults varies from 2·5 to 5 c.c. and for children 0·1 c.c. is calculated for each year of age. If a definite reaction follows one inoculation it is generally considered sufficient, otherwise a second dose is administered after a week's interval. Re-inoculation is almost certainly required the following year, but with a recurrence of the epidemic a shorter interval is imperative. It is unknown how long the protection lasts. As a second attack of plague has in several cases been known to occur within six months, it would be probably safer for those who are more particularly exposed to the contagion to be inoculated every three months."

PLAGUE OR NO PLAGUE IN CALCUTTA.

WE quote from the *Indian Daily News* the speech of our Editor at the Municipal Council on the occasion of the discussion of the recent Plague Regulations of the Government :—

"DR. WALLACE'S IMPEACHMENT"

"The following is the full text of Dr. WALLACE'S speech at Thursday's meeting of the Corporation of Calcutta :—DR. WALLACE said : "Mr. Chairman and Gentlemen,—I have listened with attention and interest to the addresses of the Hon. Mr. MITTER and the Hon. Mr. BANERJI, and I have been much impressed with the earnestness of their appeal to the Government for a due and proper regard for those sacred rites and ceremonies and those religiously guarded sentiments and usages of caste which are so dear to the Hindu and Mahomedan. I am sure I express the feeling of the entire European community when I say that such sentiments have the warmest sympathy of the European community, and that our Hindu and Mahomedan fellow-subjects may always look with confidence to receiving the unanimous support of the European community for the protection of all their social and religious rights and privileges. I feel sure the Government is now directing its policy in regard to its plague regulations with a keen sense of the consideration and respect that are due to the feelings of our Indian brethren, and I hope that nothing will ever be done that will violate the regulations or social ritual of the home life of our Indian fellow-subjects.

"The speakers who have so eloquently dwelt upon these aspects of the Government regulations as they affect our Indian brethren, have rendered valuable services, not only to their countrymen, but to the Government. I have also heard with interest and pleasure what has been said by my learned friend DR. SANDERS. He scouts the idea of segregation and inoculation, and he says if the former measure is to be adopted, it should be so carried out that afflicted persons may be accommodated in their own homes under certain precautions. Now it is very gratifying to me to state that the method of segregation, which Surgeon-Colonel SANDERS advocates, was placed before the Bengal Government by the Council of the Indian Medical Association in 1896 at the time of the last plague scare. That body dealt very fully with the whole matter of segregation and represented the lines on which such a measure could be carried out with efficiency, and at the same time obviating all the features that would prove objectionable to our Hindu and Mahomedan brethren. The warning then given to the Bengal Government by the Indian Medical Association has turned out to be prophetically and characteristically true; for had the Government acted on it, our city would not have been devastated of its population by panic. Now, as to the presence of plague in our midst, I for one, with all due deference to the gazetted opinion of the Government, do not believe we have this dread visitor in our midst. I do not believe a single case of plague has occurred. I saw, on behalf of the Municipality, all the cases that were admitted into the Maniktala Plague Hospital, and I must admit that after a careful examination of each case, of all of which I have kept notes, that not one of them was a case of plague. I believe contrary opinions have been expressed, but there is the old and unfortunately true saying that 'doctors differ.' How did not the doctors differ in their opinions regarding the suspected cases of plague that caused the great scare of 1896? You know the story. The same scientist who now pronounces

our suspicions were at once aroused, and the same in 1896, but there was abundant evidence, and the great weight of Dr. CUNNINGHAM'S scientific opinion, which saved our city from being pronounced as plague-stricken. Now, however, things are different, we are without Dr. CUNNINGHAM, and among the highly paid, highly salaried scientists, whom the Government maintains in the Indian Medical Service, is there not one man in Calcutta who can be pitted against Mr. HANKIN? So we find the Bengal Government compelled to own its unfitness to give a competent opinion through its own official experts, and it is driven to seek confirmation of its fears from Mr. HANKIN, a chemist, and not a medical man. We observe to our horror that the fate of our city, its commercial prosperity, are at the mercy of one man's opinion, and it turns out that that man whose interest it is to back up every thing about plague, gives his verdict against Calcutta, and dumps us a plague-stricken people. Are we plague-stricken? I venture to say we are not. The Government has been most inconsistent and imprudent in arriving at this unfortunate conclusion. In its regulations it describes plague as a disease having its origin in filth; it says nothing of the plague bacillus. Yet it prosecutes segregation rather than conservancy as the means to eradicate it. It also prosecutes inoculation. Now inoculation is an experimental measure which has not yet reached the domain of scientific certainty. It is quite true that some favorable reports have been made as to its protective efficacy, but a measure of this kind is surrounded with subtle dangers, and should not be boldly and confidently advocated till it has been pronounced safe and useful, after the most extended trial, and after the most unprejudiced enquiry. Before an experimental measure of this nature receives the seal of Governmental approval, and before it is authorised by State orders, it is the serious and solemn duty of the Government to be perfectly assured that the verdict of the medical profession is in its favor and that such verdict is supported by independent, disinterested, and unprejudiced experimenters I cannot assert that plague inoculation has reached this necessary position of safety. Personally I feel that the people of Calcutta, both Native and European, owe a debt of gratitude to the Bengal Government and to the Chairman of the Municipality for the recent modifications that have taken place in the plague regulations of Government in deference to public opinion in regard to segregation and inoculation, and I believe that if the conciliatory and generous policy of the Government be fully explained to the native population, much will be done to allay panic, and restore peace and order in a city that has had its commercial and social machinery practically paralysed by a little want of prudence and proper consideration of the views of those outside the circle of the Government and its most responsible advisers."

DUTIES OF A MEDICAL OFFICER OF HEALTH.

ART. 18. Quotation from Glen's English Public Health Act of 1875. (Pages 1221 and 1222) says :—"The following shall be the duties of the medical officer of health in respect of the district for which he is appointed —

"(1) He shall inform himself as far as practicable respecting all influences affecting or threatening to affect injuriously the public health within the district.

"(2) He shall inquire into and ascertain by such means as are at his disposal the causes, origin, and distribution of diseases within the district, and ascertain to what extent the same have depended on conditions capable of removal or mitigation.

"(3) He shall, by inspection of the district, both systematically at certain periods, and at intervals as occasion may require, keep himself informed of the conditions injurious to health existing therein.

"(4) He shall be prepared to advise the sanitary authority on all matters affecting the health of the district, and on all sanitary points involved in the action of the sanitary authority; and in cases requiring it he shall certify, for the guidance of the sanitary authority or of the justices, as to any matter in respect of which the certificate of a medical officer of health or a medical practitioner is required as the basis, or in aid of sanitary action.

"(5) He shall advise the sanitary authority on any question relating to health involved in the framing and subsequent working of such bye-laws and regulations as they may have power to make.

"(6) On receiving information of the outbreak of any contagious, infectious, or epidemic disease of a dangerous character within the district, he shall visit the spot without delay and inquire into the causes and circumstances of such outbreak, and in case he is not satisfied that all the due precautions are being taken, he shall advise the persons competent to act as to the measures which may appear to him to be required to prevent the extension of the disease, and, so far as he may be lawfully authorised, assist in the execution of the same.

"(7) Subject to the instructions of the sanitary authority, he shall direct or superintend the work of the inspector of nuisances in the way and to the extent that the sanitary authority shall approve, and on receiving information from the inspector of nuisances that his intervention is required in consequence of the existence of any nuisance injurious to health, or of any overcrowding in a house, he shall, as early as practicable, take such steps authorized by the Public Health Act, 1875, in that behalf as the circumstances of the case may justify and require

"(8) In any case in which it may appear to him to be necessary or advisable, or in which he shall be so directed by the sanitary authority, he shall himself inspect and examine any animal, carcase, meat, poultry, game, flesh, fish, fruits, vegetables, corn, bread, flour or milk exposed for sale or deposited for the purpose of sale or of preparation for sale, and intended for the food of man, which is deemed to be diseased, or unsound, or unwholesome, or unfit for the food of man; and if he finds that such animal or article is diseased, or unsound, or unwholesome, or unfit for the food of man, he shall give such directions as may be necessary for causing the same to be seized, taken, and carried away, in order to be dealt with by a justice according to the provisions of the statutes applicable to the case.

"(9) He shall perform all the duties imposed upon him by any bye-laws and regulations of the sanitary authority, duly confirmed, in respect of any matter affecting the public health, and touching which they are authorized to frame bye-laws and regulations

"(10) He shall inquire into any offensive process of trade carried on within the district, and report on the appropriate means of the prevention of any nuisance or injury to health therefrom.

"(11) He shall attend at the office of the sanitary authority or at some other appointed place, at such stated times as they may direct.

"(12) He shall from time to time report in writing to the sanitary authority, his proceedings, and the measures which may require to be adopted for the improvement or protection of the public health in the district. He shall in like manner report with respect to the sickness and mortality

within the district, so far as he has been enable to ascertain the same.

"(13) He shall keep a book or books to be provided by the sanitary authority, in which he shall make an entry of his visits and notes of his observations and instructions thereon, and also the date and nature of applications made to him, the date and result of the action taken thereon and of any action taken on previous reports, and shall produce such book or books, whenever required, to the sanitary authority.

"(14) He shall also prepare an annual report, to be made to the end of December in each year, comprising a summary of the action taken during the year of preventing the spread of disease, and an account of the sanitary state of his district generally at the end of the year,

"The report shall also contain an account of the inquiries which he has made as to conditions injurious to health existing in his district, and of the proceedings in which he has taken part or advised under the Public Health Act, 1875, so far as such proceedings relate to those conditions; and also an account of the supervision exercised by him, or on his advice, for sanitary purposes over places and houses that the sanitary authority have power to regulate, with the nature and results of any proceedings which may have been so required and taken in respect of the same during the year. It shall also record the action taken by him, or on his advice, during the year, in regard to offensive trades, and to factories and workshops. The report shall also contain tabular statements (on forms to be supplied by the Local Government Board, or to the like effect) of the sickness and mortality within the district, classified according to diseases, ages and localities.

"(15) He shall give immediate information to the Local Government Board of any outbreak of dangerous epidemic disease within the district, and shall transmit to the Board a copy of each annual and of any special report

"(16) In matters not specifically provided for in this order, he shall observe and execute the instructions of the Local Government Board on the duties of medical officers of health, and all the lawful orders and directions of the sanitary authority applicable to his office.

"(17) Whenever the Local Government Board shall make regulations for all or any of the purposes specified in Section 134 of the Public Health Act, 1875, and shall declare the regulations so made to be in force within any area comprising the whole or any part of the district, he shall observe such regulations, so far as the same relate to or concern his office."

HAFFKINE'S INOCULATION FOR PLAGUE.

THE medical profession and the public are alike indebted to Surgeon-Major-General ROBERT HARVEY, M.D., F.R.C.P., for his excellent and impartial Note on HAFFKINE'S inoculation for plague. Dr. HARVEY, as Director-General of the Indian Medical Service, made it his duty to inspect the whole of the plague stricken areas of this vast country and to learn by personal observation and enquiry everything that appertained to the causation, spread, prevention and treatment of plague. We publish elsewhere in extenso Dr. HARVEY'S NOTE, from the *Gazette of India*, and we urge upon our readers to peruse it carefully and thoughtfully. Dr. HARVEY, while weighing in detail the important facts which bear upon the scientific aspects of the treatment of various zymotic diseases by a system of inoculation, makes one fact stand out in strong relief, namely, that while scientific research has aimed at preventing and curing such bacillary diseases as diphtheria, tetanus, cholera, anthrax, tuberculosis, &c., time and experience have proved that our endeavours, though they may have been rightly directed, have proved futile in both prevention and cure. Dr. HARVEY arrays with considerable tact quite a phalanx of statistics in favor of HAFFKINE'S method for preventing and curing plague. But every one knows how statistics may appear to prove or disprove anything, but all experimental measures as they affect the prevention or cure of disease conditions, must be judged from numerous standpoints before they can be accepted as either safe or sure. Hence we find General HARVEY states :—

"It must be remembered, however, that all these methods are tentative, that the experiments are only beginning, but the analogies mentioned above, point to the fact that they are experiments in the right direction, and that we may hope for ultimate success."

Mr. HAFFKINE himself frankly states that "the process is based on hypothetical considerations, and that time and experiment alone can prove the validity of his conclusions."

Dr. HARVEY further adds :—"It must be obvious that an experiment of this kind must be tried on a large scale before any trustworthy conclusions can be drawn, and that many difficulties and possible sources of fallacy will be met, and must be disposed of, before we are entitled to say that events following inoculations are effects and not sequences." "At present, however, the process is too crude and imperfect to justify any compulsion on the part of Government."

Now in spite of the "favorable reports" concerning HAFFKINE'S inoculations for plague, we most emphatically maintain upon the verdict of so careful and exceedingly trustworthy an observer and critic as Dr. ROBERT HARVEY, that HAFFKINE'S method is still in the region of doubt and uncertainty, and that the Government is in no way justified in according to it the protection of its authority as a therapeutic agency, either devoid of danger in its consequences, or fraught with any health protecting properties.

In conclusion, we would simply quote here what one of HAFFKINE'S warmest advocates, the *Indian Medical Gazette* says of his anti-plague inoculations in its current number, "The danger of drawing too hasty inferences from statistics," says this journal, "has been demonstrated too often to allow us to overlook it here, and, tempting though Professor HAFFKINE'S first group of figures are, yet we must bear in mind that they are after all only, as it were, negative proofs of the result, and that the loop-holes of fallacy are both obvious and numerous" Very properly it says that, "as an efficient treatment of recognised value, plague inoculation has yet to prove itself."

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF CALCUTTA FOR 1897.

WE learn from the Report before us that a good deal of extra work was imposed upon this Department during the year owing to the inspection of all vessels arriving from Bombay, Goa, Jeddah or Kurrachee with the quarantine flag at the fore, in addition to the inspection of all vessels arriving from foreign ports; every vessel that left the port was also inspected.

In this work Dr. FORSYTH was assisted by the appointment of four additional Health Officers, *viz.*, Surgeon-Captains JAY GOULD, B. C. OLDHAM, F. O'KINEALY, and Dr. C. BANKS.

The health of the Port shows an improvement over the two previous years, the death amongst European seamen being 21·63 per 1,000 against 28·46 per 1,000 in 1896. The death-rate from cholera showed a large decrease, being 9·15 per 1,000 against 16·01 in 1896.

PLAGUE.

One hundred and ninety-four vessels arrived during the year from the plague-infected ports of Bombay, Goa, Jeddah, and Kurrachee, flying the quarantine flag at the fore. None of these vessels had a suspicious case on board.

INFECTIOUS DISEASE ARRIVAL.

The S.S. *Africa* arrived from Rangoon with one case of small-pox on board, on the 15th January 1897. The case was removed to the Campbell Hospital, and the vessel disinfected. Unprotected members of the crew and passengers were vaccinated.

CORPSES AND CARCASSES.

The return furnished by the Superintendent of the Port Police of the number of corpses and carcasses found floating in the river and sunk within the port limits shows an increase. The number of corpses was 167 against 165 in 1896, 133 in 1895, 79 in 1894, and 72 in 1893. The number of carcasses was 2,718, against 2,707 in 1896, 2,216 in 1895, 2,179 in 1894, and 1,932 in 1893.

Five *farrash* boats patrol the river, keeping a look-out for the sinking of all corpses and carcasses they come across.

This matter we learn is to be brought to the notice of the Judicial Department.

We would like to hear a good deal more about these 167 corpses that were sunk in the river during the year.

The gruesome question at once arises—How many of these corpses found their way into the river as the result of foul play? And what steps are taken to ensure a proper investigation of all suspicious cases.

For the police to sink all corpses they come across, without any enquiry, is obviously to put a premium on crime. We would like some assurance that proper supervision and discrimination is exercised in the direction; but we can find nothing of the kind in the Report before us.

SANITATION.

It is satisfactory, almost too much so, to find only one small complaint under the head, *viz.*, that "the channel at Mullick Ghat and the latrines on its banks are not kept in a satisfactory condition," as to who is in default there appears to be a difference of opinion, for the Port Commissioners, although they own the land, say it is the duty of the Magistrate of Howrah to look after its cleanliness. As this matter has been brought to the notice of the Port Commissioners by the Government, we may hope that some solution of the problem will be arrived at.

WHAT SHOULD BE DONE TO PREVENT PLAGUE IN CALCUTTA AND TO SAVE THE CITY FROM RUIN.

To prevent plague and to save Calcutta from commercial and domestic ruin, we would recommend the following course:—

1. Find out as a fact if plague does exist.

(*a*) Let a committee of qualified official and non-official physicians meet in consultation on a given case of suspected plague, and let them decide as to the true nature of the affection, after careful examination of the patient and after due discussion of the signs and symptoms of the disease.

(*b*) Let two competent bacteriologists residing in Calcutta—say, Surgeon-Colonel G. BOMFORD, M.D., Chief Physican to the Medical College Hospital, and Surgeon-Major EVANS, M.D., Professor of Pathology of the Medical College—declare their opinions on the microscopic appearances of the blood of such patient, and decide whether any of the *three* forms of bacillus of plague is present in his blood.

(*c*) Confirm by experimentation the decision of these two excellent pathologists, by reproducing *plague* in a few dogs or rabbits inoculated with the patient's blood.

(*d*) Call in MONSIEUR HAFFKINE, and one of the following officers:—Surgeon-Colonel EDWARD LAWRIE, Surgeon-Major RONALD ROSS, Surgeon-Major PATRICK HEHIR, or some other official specialist in microscopy and bacteriology, to express an independent opinion on the "germ" aspect of this question. If after such competent opinion it be decided that we have plague in Calcutta, it will then be time to adopt active measures to eradicate or to prevent plague.

2. AT ONCE, whether there be plague in the city or not adopt the following measures:—

(*a*) Get another Health Officer to temporarily replace Dr. COOK, since he has now ceased to perform the duties of Health Officer, and has apparently—judged by the daily reports in the newspapers—become special plague inoculator.

(*b*) Clean up Calcutta.

(*c*) Adopt measures to open up crowded areas, destroy unhealthy bustees, open up a few large straight wide streets, running from east to west and north to south of the town.

3. Restore confidence, peace and happiness, to the inhabitants of the city, chiefly the native population, by adopting such governmental measures for the prevention of disease as are best calculated not to outrage the social and religious customs and feelings of our Indian fellow-subjects. Such measures were fully detailed in the suggestions made by the Council of the Indian Medical Association in its representation to the Bengal Government in 1896, during the last plague scare.

By adopting all the above means we may save the commercial and domestic prosperity and happiness of Calcutta from inevitable ruin.

DILATATION OF THE STOMACH.

DR. INGLES in the *N. Y. Medical Record* calls attention to the exaggerated importance attached to this condition.

BOUCHARD in his "Auto-Intoxication" states that "dyspepsia is accompanied by dilatation of the stomach in seven-eighths of the cases;" and again he says: "In a ward in a hospital out of ten patients taken at random, you will find three with dilatation." Once more: "Dilatation of the stomach may exist without inducing anomalous sensations, without dyspeptic or gastralgic symptoms, in two-thirds of the cases. It is a disease which does not announce itself; we know that it passes unperceived."

Put into concentrated form, these statements mean that of all dyspeptic patients seven-eighths have dilatation of the stomach, but that this very considerable number by no means represents the total; on the contrary, for every dilated stomach which causes dyspepsia, there are two others which do not. And finally, about one-third of our hospital patients of all sorts have dilated stomachs.

BOUCHARD represents the extreme of a class of enthusiasts who are looking for dilated stomachs and finding them, and who when they find them honestly believe that the first thing to do is to cure that dilatation. To this end there are multitudes of people who are having their stomachs washed out day after day for weeks and months.

According to Dr INGLES the common sense view of the case is as follows:—

"The stomach is subject to all sorts of variations in size in perfectly healthy people. Its muscular walls may at one time keep wall contracted when it is empty, or at another time they may relax. We may form an excellent idea of the varying conditions at different times in the same individual, by recalling the contracted or relaxed scrotum. The scrotum which is habitually exceedingly lax, still retains the power of firm contraction; as a rule, so does the stomach.

"Dilatation of the stomach can be easily produced. Leaving altogether to one side those cases in which pyloric obstruction,

however produced, is the efficient cause, but we note that the gases liberated by fermentation of undigested foods cause but a slight pressure; they form much as the bubbles in yeast, yet, gentle as is the internal pressure, the walls of the stomach easily yield. It is only when a sufficient nervous impulse starts a contraction that we so much as become conscious that the stomach is full of gas.

"The dilatation of the stomach is mainly a matter of lack of nervous stimulus to set up peristalsis. Now we see why, while very frequent in the sick, it is relatively uncommon in the healthy.' The sick, in the usual course of things, have a lowered nervous tone; they have dilated stomachs for precisely the same reason that they are constipated, and the latter disorder is probably quite as dangerous as the former."

WHAT IS HAFFKINE'S PLAGUE SERUM?

We have read Dr. Harvey's *Note* and have endeavoured to find an answer to the above question. What is Haffkine's Plague Serum? How is it prepared? Who knows anything about it besides Haffkine? Let Dr. Harvey reply:—

"In his anti-plague inoculation Haffkine uses the bacilli of plague to confer a bactericidal power which shall enable the individual to resist the same in its natural form; but goes a step further and by injecting the toxines secreted by the bacilli in the cultivating medium in which they grow, he strives to produce an anti-toxic effect in the tissues which shall enable the patient to throw off the poison if it should gain access to his system, and so reduce the case mortality.

The serum takes some six weeks to prepare and the *technique* of the process requires great care and can only be carried out by experts, but the actual inoculations can be done by any medical officer according to printed instructions."

This is all we know about it, and this is about as much as the general public and the medical profession know about Holloway's Pills, Mother Seigel's Syrup, Clarke's Blood Mixture or Beecham's Pills. They, like "Haffkine's Serum" are secret remedies. We find the official profession of India blindly accepting bottles of stuff called Haffkine's Serum as a plague-cure, and using it with as much credulity and probably less justification, as the gullible layman uses Clarke's Blood Mixture as a panacea for all bodily blemishes, and truly the spectacle is too ludicrous. We honestly believe that time and experience, if they prove anything, will prove that Haffkine's Serum is a huge bauble that will burst as ridiculously as did the tuberculin cure of consumption by Professor Koch

ARE CIVIL ASSISTANT SURGEONS STILL GAZETTED OFFICERS?

At the fourteenth meeting of the Council of the Indian Medical Association held on Thursday, 17th March 1898, the Secretary read an important letter from certain Civil Assistant Surgeons complaining of a new grievance that had been inflicted upon them by the recent orders of the N.-W. P. and Oudh Government, the practical effect of which is to deprive Civil Assistant Surgeons of their status as gazetted officers.

Resolved that application be instantly made to Government for a copy of the orders referred to, and that the serious consideration of the Council be given to the subject at the earliest possible date.

Office of the Indian Medical Association,
160, *Dharamtala Street, Calcutta, 2nd April 1898.*

To the Secretary to the Government,
North West Provinces and Oudh.

Sir,—Would you be so good as to allow me to have a copy of the recent orders of your Government in regard to the Civil Assistant Surgeons of your Provinces which deprive them of the position of gazetted officers.

I have &c.,

(Sd.) James R. Wallace, M.D., F.R.C.S.
Secretary, Indian Medical Association.

No. 1480 of 1898
11-220 A.

From the Under-Secretary to Government,
N.-W. Provinces and Oudh.

To the Secretary, Indian Medical Association.
Dated Naini Tal, 4th May 1898.

Sir,—In reply to your letter dated 22nd April 1898, I am directed to say that no such order as referred to by you in regard to Civil Assistant Surgeons of these Provinces has been issued by this Government.

I have the honor to be,
Sir,
Your most obedient Servant.

(Sd.) H. W. Wright,
Under-Secretary to Government, N.-W. P. and Oudh.

UNQUALIFIED ASSISTANTS: PROPOSED MEMORIAL TO THE GENERAL MEDICAL COUNCIL.

Says the *British Medical Journal*:—It is proposed to petition the General Medical Council to authorise the examining bodies to hold, if they please, one or more special examinations during the present year only for the benefit of unqualified assistants over 40 years of age who have completed the medical curriculum and are of satisfactory moral character.

The promoters of this movement hold the opinion that by so doing the Council will remove a grievance and mitigate the severity of the new rule, which, while wise and necessary, presses with some harshness upon a very helpless class of men. It is thought that many of these, if unable to get upon the *Medical Register*, will be driven into the ranks of those unqualified and unregistered practitioners whose existence in such numbers is already a grave public scandal and a serious injury to the profession and should be a subject of deep concern to the Council. If the Council take this step, there are grounds for believing that such examinations would be held by some at least of the examining bodies.

Gentlemen who may wish to help by taking charge of copies of the petition for signature are requested to communicate with Dr. G. P. Hadley, Wadham House, Loxells, Birmingham, who is willing to act as secretary to the movement.

PLAGUE PREVENTION MEASURES FOR CALCUTTA.

The Chairman's Notice.

The following notice is published over the signature of Mr. R. T. Greer, C.S., Acting Chairman of the Calcutta Corporation:—

1. Quarantine will not be enforced by Government against Calcutta.

2. No segregation will be enforced if the entire household has been inoculated.

3. No one will be declared plague-stricken without being seen by a competent medical officer, male or female, deputed by the Municipality.

4. No one will be separated from his or her family. If necessary, all will go together to a camp, where the purdah will be respected.

5. Compensation will be paid on the spot if any property is destroyed in being disinfected.

6. Encouragement will be given to the public to provide private family hospitals for the treatment of their relatives in their private houses, where proper accommodation is obtainable.

7. No person will be removed except on the order of a medical officer. The police are not authorised to examine or remove any one.

HISTORY OF THE CLINICAL THERMOMETER.

A LETTER from Dr. EDWARD F. WELLS, of Chicago, contains certain interesting details regarding the history of the clinical thermometer. He writes as follows:—"Dr. DONALD MACLEAN, in his very readable 'Personal Reminiscences of SYME,' says of the year 1839 that 'the clinical thermometer had not then been invented.' In 1745—46 CLEGHORN encountered, in Minorca, an epidemic of pneumonia and published his observations upon the same in a volume entitled 'Epidemic Diseases of Minorca, London, 1762. On page 261 of this work, in describing the symptoms of the disease, he says: 'The internal heat was in several very moderate; in some less than natural; but for the most part it was so intense as to raise the thermometer to the 102nd degree, and often in the afternoon to the 104th.' The history of the clinical thermometer, since the idea of using it in measuring the temperature of the body in disease first occurred to SANCTORIUS in the earliest years of the seventeenth century, is enveloped in considerable obscurity, yet it is certain that, with the published observations of DONNE (*Arch. Gen de Med.*, 1837), ZIMMERMANN (Prager Vierteljahrschrift, 1852), and others, it is not historically correct to say that the clinical thermometer had not been invented in 1859, however true it may have been that it was not in common use."

CAPACITY OF THE STOMACH IN INFANTS.

A COMPREHENSIVE study of this subject in Escherich's pediatric clinic results in the statements: 1. That the stomach of maternally fed infants is smaller than in the artificially fed. 2. That the true capacity of healthy stomachs is less than that of the functionally or anatomically morbid. 3. That the elasticity is greater in small stomachs, and 4 that the true capacity of the stomach is a function depending upon the size of the pylorus. With a narrow pylorus the capacity is large and vice versa. The practical importance of the research lies in the facts established that every healthy infantile stomach can by passive increase in the internal pressure, or from lavages, attain a capacity and retain it for some time, which stimulates dilatation. Large capacity after a lavage does not indicate either atony or ectasia. Repeatedly produced artificial gastroparesis injures the functions of even a healthy stomach musculature, much more where there is motor insufficiency. Consequently loading the infantile stomach should be solicitously avoided, and systematic lavages completely rejected, especially where there are gastroparetic or dilated conditions. The maximal single amount that should be allowed a normally developed infant is: First month, 90 c. cm.; second, 100; third, 110; fourth, 125; fifth, 140; sixth, 160; seventh, 180; eighth, 200; ninth, 225; tenth, 250; eleventh, 275; twelfth, 290.

A DOCTOR WITH A CONSCIENCE.

THE *Philadelphia Medical Journal* says:—"A good true story is told of a San Francisco woman and a doctor with a conscience. The doctor performed a successful operation for a rich woman, and when asked for his bill, presented one for $50. The lady smiled and said, "Do you consider that a reasonable charge considering my circumstances?" The doctor replied: "That is my charge for that operation; your circumstances have nothing to do with it." The lady drew a check for $500, and presented it to him. He handed it back, saying: "I cannot accept this. My charge for that operation is $50." "Very well," the lady replied "Keep the check and put the balance to my credit." Some months after, she received a lengthy itemized bill, upon which were entered charges for treatment of various kinds rendered to all sorts of odds and ends of humanity, male and female, black and white, who had been mended at her expense. She was so delighted at it that she immediately placed another cheque for $500 to her credit on the same terms, and it is now being earned in the same way."

OLIVE OIL IN HEPATIC COLIC.

BARTH reports the successful result of the administration of large amounts of olive oil in two cases of hepatic colic with icterus, caused by incarcerated gallstones. In one case 200 grams were taken every other day, and in the other 150 grams each day, the taste improved by a few drops of essence of anise. Part of the oil was found in the feces in a saponified condition, in the shape of small green particles which were at first erroneously supposed to be fragments of the gallstones. The rest was split into stearic acid and glycerin. The oil, besides lubricating the mucous surfaces and thus facilitating the expulsion of the stones, excites powerfully the secretion of bile, which flushes the biliary passages and removes particles that might ultimately develop into stones. On account of the increased secretion of bile, oil affects the system injuriously in adhesive cholecystitis, and it is also useless in dilatation and ascending suppurating infection of the billiary passages, and even injurious, on account of the impaired digestion and extra work forced on the liver.

CALCUTTA PLAGUE STATISTICS.

According to the official report there have been, since the 16th April up to the present date, fifty-three suspected cases with forty-three deaths. Quoting our friend the Hon'ble Dr. MAHENDRA LAL SIRCAR, M.D., C.I.E.:—"It does not appear from the official statement of Mr. RISLEY, the Secretary to the Government of Bengal, that in all the cases there were glandular swellings. No information is given as to how long each patient was suffering before he came under observation, and under what circumstances he got or caught the fever." Against this statement we have the views of CHEVERS, FAYRER, EWART, D. B. SMITH, CROMBIE and others, who declare most emphatically that a malignant type of septic fever, often accompanied by glandular swellings, is at certain times of the year endemic in Calcutta, and that such cases are to be found in filth saturated *bustees* occupied by the very poorest classes of natives.

MINOR POINTS IN GYNECOLOGIC TECHNIQUE.

AFTER vaginal hysterectomy BELIN applies tampons in three layers; aseptic, aniline dyed strings are fastened to each tampon, a different color for each layer, so that one layer can be removed and replaced at variable times without disturbing those that should remain undisturbed for longer periods. This trifling innovation, he states, has rendered him inestimable service during the last year. He also uses a cone-shaped cake of soap in making the toilet of the vagina, which does not slip out of the hand like the ordinary cake and get lost in the depths. REVERDIN's further improvement consists of a tube passing through the cone-shaped cake of soap, which fits into and closes the orifice of the vagina,

while the water passes through and distends the walls. We note *en passant* the increasing tendency evidenced at the last French Congress of Surgery to prefer the abdominal route for hysterectomy.

THE SO-CALLED "DIPLOMA" TO MIDWIVES FROM THE OBSTETRICAL SOCIETY OF LONDON.

FOR many years the Obstetrical Society of London took upon itself the authority of examining women who had undergone one year's training in midwifery and of granting them certificates, which in course of time were styled "diplomas" and the holders of such diplomas began to style themselves "*Licentiates* of the Obstetrical Society of London" (L. O. S.). We had one such instance in Calcutta which was recently brought to public notice in the *Record*. Now it ought to be very generally known that through the vigorous action of the Lancashire and Cheshire Branch of the British Medical Association, the General Medical Council of Great Britain prohibited the Obstetrical Society from granting any further certificates or diplomas, and the holders of such documents were warned not to infringe the Medical Acts by styling themselves "*Licentiates*." Let us hope that medical men in India will prevent midwifery nurses from misusing their certificates by styling them "diplomas" or "licenses."

DANGERS OF THE DAIRY.

DR. BRUSH in the *Medical News*, says:—One of the dirtiest habits which exist in many dairies is that of wetting a cow's teats to lubricate them, to make the milking process easier to the milker. This custom, not rare unfortunately, is the most common nasty habit permitted in many dairies. If it were not for the good that is sure to follow the agitation of these matters, I should hesitate to record that I have myself seen milkers spit upon their hands to wet the teats before they began milking, and then, when there was a certain quantity of milk in the pail, dip their dirty hands into it, and keep the teats dripping wet during the whole process of milking. Cow's teats should not be wetted in any manner, especially in winter, even to wash off dirt if it is already there. This should be removed with a brush or a dry towel. Wetting of the teats very often leads to chapping, and chapping to cracks, and these cracks often become running sores from the constant irrigation of the milking process.

BILIOUS HÆMATURIC FEVER.

DR. CORMOUER who has had an opportunity of studying these fevers in the French Soudan, arrives at the following conclusions (*Archives de Méd. Navale et Coloniale* 1897, No. 5).

(1). Bilious hæmaturic fever appears to be chiefly the result of malaria. As is proved by the presence of LAVERAN'S hæmatozoon in the blood.

(2). The theory which holds that it is an affection distinct from malaria is only hypothetical.

(3). Bilious hæmaturic fever cannot be confounded with yellow fever, remittent bilious fever, acute yellow atrophy of the liver, paroxysmal hæmoglobinuria, and certainly not with hæmoglobinuria due to quinine.

(4). In the Soudan this disease assumes a more severe type than in the other colonies.

(5). The ordinary drugs have hardly any effect—so far quinine is the only drug that any reliance can be placed in.

PLAGUE IN BOMBAY.

THE plague is abating slowly but surely. Our last year's experience fixed the period of decline at about twelve or thirteen weeks, and that experience promises to be repeated this year. The following table shows the plague mortality and the total mortality since the decline began:—

	Plague Mortality.	Total Mortality.
Week ending 22nd March.....	1,250	2,266
" 29th "	978	1,998
" 5th April.....	679	1,510
" 12th "	562	1,303
" 19th "	541	1,202

The total mortality now exceeds the five years' average by 542, a number closely corresponding with the present recorded plague mortality.

MEETING OF THE COUNCIL OF THE INDIAN MEDICAL ASSOCIATION.

AN important meeting of the Council of the Indian Medical Association was held on Friday, the 13th May, at which the following items of interest were considered:—"The position of Civil Assistant Surgeons as gazetted officers, the reply of the Government regarding the grievances of Military Assistant Surgeon and Military Hospital Assistants, a representation to Government regarding medical education, medical examinations and medical diplomas in India, a representation to the Bengal Government in regard to the plague question in Calcutta, and some other minor matters. A full report of the proceedings of the Council will be published in our next issue.

DOES THE L. S. A. ENTITLE ITS HOLDER TO STYLE HIMSELF PHYSICIAN AND SURGEON.

MR. H. K. HUNTER, M.D., of Philadelphia, U. S. A., and L. S. A. London, began practice in London, and on his cards and sign board, styled himself M.D., L. S. A. (Physician and Surgeon). The British Medical Council prosecuted him on the 6th April for falsely using the titles, physician and surgeon, and the court held that the possession of M.D. Philadelphia, did not entitle Mr. HUNTER to style himself "physician and surgeon," nor did the L. S. A. London, entitle him to do so, and he was accordingly fined £5 for falsely using the title of "physician." It is announced that the Society of Apothecaries of London will defend their diploma and appeal against the decision.

THE PROSTITUTE DIAGNOSED BY HER PREHENSILE FOOT.

SAYS the *New York Medical Journal*:—"IN the March number of the *Monatshefte fur praktische Dermatologie* there is a brief abstract of a study of the morphology of prostitutes, by JULLIEN, presented at the Geneva Congress of Criminal Anthropology. The author had examined fifty young prostitutes with reference to the presence of the *pes prehensilis* of Italian observers. In this malformation there is an abnormally wide space between the great toe and its neighbour. In two thirds of the girls examined by the author the average distance between the two toes was more than an inch, and the deformity was commoner on the left side than on the right."

AN OVER-SENSITIVE LADY DOCTOR.

MISS ELGUEFF, at one time an extern of the Paris hospitals, and who afterwards received the degree of Doctor of Medicine at Moscow, has recently died at the age of 36 in the following distressful circumstances. She had been appointed Physician to the Asylum for Poor Children at Nijni-Novgorod. Recently a prematurely born child admitted to that institution died, and its death was attributed to burns caused by the hot flannels in which it was wrapped to keep it warm. Believing the child's death to be due to her own carelessness, Miss ELGUEFF put an end to her life. The *post-mortem* examination showed that the child had died, not in consequence of the burns, but from malnutrition.

SHORT TYPES.

The undermentioned probationers for the Indian Medical Service are appointed Surgeon-Lieutenants from 28th January :—F. H. Delany, Bengal ; A. W. F. Raitt, Bengal ; S. R. Douglas, Punjab ; E J. O'Meara, Punjab ; G. Tate, Punjab ; R. F. Dalzel, Punjab ; A. T Gage, Punjab ; G. C. Laing, Bombay ; G. McPherson, Bombay ; S. Hunt, Bombay ; A. G. Sargent, Bombay ; W. H. Cox, Bombay ; De Vere Condon, Bombay ; H. A J. Gidney, Bombay ; H. Kirkpatrick, Madras ; F. D. S. Fayrer, Madras ; P. K. Chitale, Madras ; and W. Lethbridge, Madras.

Lord Lansdowne announced at a banquet given by the medical profession on the 4th May in the Mansion House that it had been decided to organise a separate medical corps to be named the Royal Army Medical Corps, within which members will bear the same titles up to that of Colonel as other officers of the Army. The highest grade in the new corps will be called Surgeon-General.

There is now in Colombo Dr. Simond, of the Pasteur Institute, who arrived per M. M. steamer *Melbourne* from Saigon. He is Director of the Pasteur Institute of Saigon and is leaving Ceylon for Bombay per S.S. *Chusan*. Dr. Simond has been sent by the French Government to continue his studies on the treatment of plague by serum at the Pasteur Institute.

The Court of Appeals has acquitted Dr. LaPorte, who was recently convicted in Paris by the Court of First Instance of having caused the death of a patient by performing craniotomy. In addition, the Advocate-General has withdrawn all accusations against him. Dr. LaPorte is earning his living as a shorthand reporter.

Surgeon-Captain F. G. Crawford has been appointed to act as Superintendent, Government Maternity Hospital, Madras, *vice* Brigade-Surgeon-Lieutenant-Colonel A. M. Branfoot, whose services have been placed at the disposal of the Government of India, Military Department, for employment as Principal Medical Officer, Rangoon District.

Mrs. McCloghry, wife of the Civil Surgeon of Karachi, met with a very nasty accident whilst being driven down Elphinstone Street in her victoria. The horse took fright and became quite unmanageable, and at last upset and smashed the trap. Mrs. McCloghry was violently thrown out but miraculously escaped any severe injury.

The Government of India has decided that a medical officer officiating in an administrative medical appointment should receive the full consolidated salary of the appointment if available, provided that no other officer is concurrently holding a lien on the same post, and counting service on its account for additional pension.

His Holiness Pope Leo XIII is reported to have said :—"Get only the best wine for your table ; and free from care, soothe and refresh your heart with the grateful beverage, in the company of friends ; but in all sobriety trusting not overmuch to it as a restorative."

We are informed that it is not Sir William Turner's intention to resign the Chair of Anatomy in Edinburgh University, and that the rumour that he would take this step in consequence of his election to the Presidency of the General Medical Council is unfounded.

Dr. C. Banks, Superintendent of Emigration, and Surgeon-Captain Vaughan, Deputy Sanitary Commissioner, have been appointed by His Honor the Lieutenant-Governor to be Assistant Health Officers, Calcutta, in addition to their own duties.

A public entertainment was given yesterday at the Native General Library, in Poona city, to Surgeon-Captain Lloyd Jones, prior to his departure to Matheran. The entertainment was organised chiefly by members of the Hindu Plague Committee

Surgeon-Captain D. M. Moir, Second Resident Surgeon Presidency General Hospital, Calcutta, on return from military duty, is appointed to act at First Resident Surgeon of that institution.

Surgeon-Captain H. W. Pilgrim is appointed to act as Civil Surgeon of the 24-Perganas during the absence on leave of Surgeon-Major A. W. D. Leahy, or until further orders.

Surgeon-Major A. H. Burlton, Army Medical Staff, in medical charge of station Hospital, Dum-Dum, is appointed to have charge of the civil medical duties at that station in addition to his own duties.

Surgeon-Captain C R. M. Green, on return from military duty, is appointed to act as Superintendent of the Campbell Medical School and Hospital, Sealdah, during the absence, on leave, of Surgeon-Major J. B. Gibbons.

A bill requiring applicants for a marriage-license to appear before a medical board and forbidding the issue of a license to those afflicted with dipsomania, kleptomania, insanity, or tuberculosis, has been passed by the Ohio Senate, U. S. A.

A special additional pension of £100 per annum has been conferred on Brigade-Surgeon Lieutenant-Colonel Sir A. S. Lethbridge, an Anglo-Indian.

Leave of absence for seven months is granted to Major Alexander John Maunsel Maclaughlin, of the Burma Valley Light Horse.

Dr. John P. Maynard, well known as the introducer of collodion into the practice of surgery, died at Dedham, Mass., on 26th, February aged 72 years.

Surgeon-Colonel Maxham, P.M.O., South Africa, succeeds Surgeon-Major-General Walsh as P. M. O., Bengal Command.

VITAL STATISTICS OF CALCUTTA.

Statement of Deaths from Principal Diseases in Calcutta during the week ending 16th April to the 7th May 1898.

Week ending.	Cholera.	Small-pox.	Fevers.	Bowel com-plaints.	Also other diseases.	Total.	Total population, according to the census of 1891.	Ratio per 1,000 of population per annum.
16th April	24	6	126	45	164	365	6,81,560	27·9
23rd April	42	2	145	45	175	409	...	31·3
30th April	32	8	161	50	203	454	...	34·7
7th May	16	7	131	59	164	377	...	28·8

ANTI-PLAGUE INOCULATION.

NOTE BY DR. HARVEY.

THE following Note on anti-plague inoculation by Surgeon-Major-General R. HARVEY, Officiating Director-General of the Indian Medical Service, is published in the *Gazette of India* :—

From the earliest times the treatment of plague has been the opprobrium of the medical profession, and the results of recent experience seem to show that it is so still. The case mortality both in China in 1894-96 and in India in 1896-98 has ranged from 70 to 90 per cent., and it seems to be pretty generally admitted that such cases as recover do so in virtue of inherent power of resistance rather than as a consequence of medical skill, although isolated cases are, no doubt, helped to recovery by treatment.

It is only since 1894, however, that the true cause of plague has been demonstrated as due to a pathogenic microbe. This was discovered at Hongkong by KITASATO, and his observations have now been fully confirmed by other observers. Some such cause had for years been accepted by the profession as a matter of theory, founded on the analogus cases of small-pox, anthrax, and other so-called zimotic diseases and the results of bacteriological work had led to that belief that a remedy might be worked out on bacteriological lines similar to that found in vaccination against small-pox, and the preventive inoculations against anthrax, cholera, diphtheria, etc. No practical work could, however, be done until the theory had been proved to be a fact, and the general absence of plague in centres of scientific medical activity delayed the discovery until the outbreak in Hongkong in 1894. This speedily proved that the theories were right and gave a great impetus to the hope that a protective and curative treatment based on scientific principles might be worked out. This could only be done by experiment and by practice, and time was required to prove its efficacy. Numerous experiments have been made both in the laboratory and in plague-stricken districts, some of which have been failures, others more or less successful. Some have been intended as preventive, some as curative, some as both.

It must be remembered, however, that all these methods are tentative, that the experiments are only beginning, but the analogies mentioned above point to the fact that they are experiments in the right direction, and that we may hope for ultimate success.

The most promising results so far attained are those of M. HAFFKINE, and it is to this method especially that this Note is intended to call attention. The idea is to combine a preventive and curative method which shall eliminate or greatly diminish the risk of contracting the disease, and at the same time reduce the case mortality. In his anti-cholera inoculations a bactericidal power is conferred on the individual by inoculation with attenuated common bacilli, so that when exposed to attack, his system can resist and kill off the invading microbe in its natural condition.

The result is diminished susceptibility and a consequent reduction of the absolute mortality; but when an inoculated individual does get the disease, the case mortality has so far been little affected

In his anti-plague inoculation he uses the bacilli of plague to confer a bactericidal power which shall enable the individual to resist the same in its natural form; but goes a step further and by injecting the toxines secreted by the bacilli in the cultivating medium in which they grow, he strives to produce an anti-toxic effect in the tissues which shall enable the patient to throw off the poison if it should gain access to his system, and so reduce the case mortality. He frankly states that the process is based on hypothetical considerations, and that time and experiment alone can prove the validity of his conclusions.

It must be obvious that an experiment of this kind must be tried on a large scale before any trustworthy conclusions can be drawn, and that many difficulties and possible sources of fallacy will be met, and must be disposed of before we are entitled to say that events following inoculations are effects and not sequences.

Thus plague may disappear from a village immediately after inoculations have been done It by no means follows that the inoculations have been the cause of the disappearance. The disease may have come to an end at this particular time and the inoculations be no more than a coincidence. Similarly the exemption of a jail or other inoculated community may have no connection with the inoculation, but be due to the fact that the plague bacillus has never been introduced, in which case there could have been no plague, though no inoculation had been done.

It is only when plague is actually present and when inoculated and uninoculated persons are living together under similar conditions in the midst of it, that we can begin to draw conclusions by comparing the incidence of the existing epidemic on the two classes; and it is only when a number of instances like the above have shown that under similar conditions similar results invariably appear, that we gradually substitute the relation of cause and effect for that of mere sequence; every additional instance strengthening the induction until we arrive at scientific proof.

The results so far arrived at go far to show that M. HAFFKINE is working on the right lines; that he has already obtained a measure of success which would justify the voluntary adoption of his method by the public; that there is reason to hope that still better results may follow from further experiments and observation; and that in time it may be possible to expect as much from inoculation in the suppression of plague as we now do from vaccination in the stamping out of small-pox. At present, however, the process is too crude and imperfect to justify any compulsion on the part of Government, though it might well consider the advisability of holding out inducements to inoculation, by conferring certain exemptions from unpalatable restrictions on those who have submitted themselves to it

Before discussing such questions, however, it will be well to briefly record the results already attained in different places where the inoculations have been tried,

At the Bombay House of Correction, plague broke out towards the end of January, 1897, and attacked nine prisoners, six of whom died. On the 30th January, inoculation was offered to the prisoners, a number of teachers and students of the Grant Medical College being done in their presence to encourage them. Six additional cases, three fatal, occurred the same day among the non-inoculated and three of the inoculated developed symptoms the same evening and also died. These cases are not included in the following figures, which show the results from the day after the inoculations till the epidemic ended eight days later :—

	No.	Cases.	Per cent.	Deaths.	Per cent.
Uninoculated ...	173	12	6·94	6	3·49
Inoculated ...	148	2	1·35	0	0·00

Mora in the Kolaba District, near Bombay, has a population of about 1,000; seven cases occurred among 429 inoculated persons. All recovered. During the same time there were 26 attacks among the uninoculated part of the population, 24 of which proved fatal.

Lower Damaon experienced a very severe visitation of plague in the cold season of 1896-97 The history of epidemic was very carefully investigated by Surgeon-Major LYONS, and the figures show that some 2,197 persons were inoculated, while 6,033 remained uninoculated Between the end of March and the end of May 1897, no fewer than 1,482 of the uninoculated died of plague. The inoculated lost only 36, whereas had they suffered at the same rate as their uninoculated neighbours, they should have lost 332—a saving of close on 90 per cent.

At Lanault in July 1897, M. HAFFKINE and his assistants inoculated 323 persons in the two wards most severely infected with plague; 377 others remaining uninoculated. Among these there were subsequently 78 cases and 58 deaths, while among the inoculated there were only 14 cases and seven deaths, instead of 67 and 49, as there should have beenhad they remained as susceptible as their uninoculated relatives, living besides them under identical conditions. Here the reduction in mortality was some 86 per cent.

Kirkee had a severe epidemic in the autumn of 1897, in which the followers belonging to the Royal Artillery suffered heavily, in spite of all possible precautions taken by the military authorities. These people numbered 1,530, living in about 40 barracks on the Kirkee maidan. "Out of the total of 1,530 individuals," to quote M. HAFFKINE, "671 availed themselves of inoculation, while 850 belonging to the same families, living under the same roofs, having the same food, drink, etc., and subject to the same general pre-

ventive measures adopted by the military, remain uninoculated. From the time of inoculation up to the end of the epidemic the 859 uninoculated had 148 cases, with 98 deaths. Seeing the absolute similarity of the conditions, the 671 inoculated should have had, proportionately 119 cases with 77 deaths, if they had remained as susceptible to the disease as were their uninoculated brothers, sisters, parents, wives, husbands, children. Instead of that they had 32 cases, with 17 deaths. The number of 77 deaths was, therefore, reduced for them by 60, that is by 77·9 per cent.

These cases all occurred before the recent recrudescence of plague in Bombay. A large mass of additional information has since been accumulated, but has not yet been worked out; although it all appears to point in the same direction. The two following instances, however, are complete, and have been most carefully certified.

Umarkadi Jail, Bombay, was attacked by plague in January 1898. About half the inmates had previously been voluntarily inoculated, the numbers on the 1st January being —uninoculated 203, inoculated 198. A number of men were released during the month, others were inoculated, and on the 30th there were 106 uninoculated to 134 inoculated. Cases occurred throughout the month, ten in all, with six deaths, all in uninoculated prisoners. No inoculated person was attacked, and the disease was believed to have disappeared. Since then, however, there have been three suspicious cases among inoculated persons, one on the 10th February, one on the 28th, and one on 18th March All these have recovered, and the hospital authorities at Parel were not quite sure that they were cases of plague. If they were, they were cases so much modified as to be with difficulty recognisable. I saw two of them, and they looked to me like mumps. Both parotids were equally affected (a rare thing in plague).

Undera, village about six miles from Baroda, was attacked by plague in January 1898 On the 5th February a careful census was taken, and showed a population of 1,029. Up to, and inclusive of the 14th February, only 79 plague deaths occurred, leaving 950 people to be dealt with. Of these, 513 were inoculated, leaving 437 uninoculated. As far as possible, an equal number of each sex, age, and family were done, and as all were living under precisely similar conditions as to a sanitary surrounding, food, drink, clothing, etc, the case is the best and most conclusive example yet available of the result of inoculation. Except for the inoculations all were on the same footing, and the disease had got a thorough hold of the place The usual sanitary precautions as to segregation and disinfection were carried out, all plague cases being removed to hospital and every effort made to combat the disease in the usual way. The inoculations were done on the 12th, but the following figures are taken from the 15th, so as to eliminate cases in combating plague at the time of the inoculations. Three deaths occurred among the uninoculated between the 12th and the 14th inclusive, none among the inoculated. These three deaths, together with two others which might possibly have been due to diseases other than plague, have been eliminated, so that no exaggeration as to the effects of the inoculation may be possible. The results up to the 2nd April are as follows, but no case occurred after the 26th March, so that we are probably dealing with a finished epidemic:—

Between the 15th February and the cessation of the disease plague cases occurred in 29 families, living together, as already said, under exactly similar conditions, save that some were, and others were not, inoculated. These 29 families comprised 135 individuals of all ages, 71 of whom had been inoculated and 64 not. The 71 inoculated had eight cases, with three deaths, while the 64 uninoculated had 28 cases, with 26 deaths, Had the inoculated been as susceptible as the uninoculated, they should have had 29 deaths, instead of three, and the inference seems irresistible that the inoculation saved 26 lives out of this small number or 89·65 per cent. Taking the whole numbers, inoculated, 513 had eight cases, or 1·56 per cent., and three deaths, or ·58 per cent, while the 437 uninoculated had 28 cases, or 6·4 per cent. and 26 deaths or 5·9 per cent, just ten times as many.

The protective influence of the inoculations is brought still more strongly in some particular instances. Thus in hut 84, ward 4, five persons were inoculated in a family of ten. The five inoculated remained healthy, while two out of the five uninoculated got plague and died. In hut 18 of the same ward three inoculated persons remained healthy, two uninoculated died out of a family of five. In hut 36 also in ward 4, one inoculated person escaped; two uninoculated died out of a family of three. In hut 8, ward 1, four inoculated persons escaped, while the one who remained uninoculated contracted the disease and died. In hut 24, ward 2, out of a family of two the inoculated member escaped, the uninoculated died. In hut 20, ward 3, one of three inoculated contracted plague, but recovered, while one of four uninoculated got it and died.

In two out of the three huts where fatal cases occurred among the inoculated a death also occurred among the uninoculated, and in only one instance in the whole village did a case occur among the inoculated, while the uninoculated went free. This was in hut 31, ward 4, where one of four inoculated contracted and died of plague, while two uninoculated escaped.

These figures have been verified* case by case and family by family, and seem to me to prove that, while inoculation, as at present practised is not an absolute protective either against seizure or death, it is of immense value both as a prophylactic and as modifying the severity of the disease and reducing the case mortality. This was 37·5 per cent among the inoculated, against 92·85 in the uninoculated.

Sulaiman Mussalmans at Baroda, a population of 404, living in an extremely dirty crowded locality, by the influence of their headmen and mullah, have had 332 inoculated, and no plague has occurred among them, although cases have been prevalent all round about them. They have been taken into camp in batches, while their houses have been cleaned, disinfected, and whitewashed. This case proves nothing, but, so far as it goes, is favorable to inoculation.

The Khoja community of Bombay has been largely inoculated, but the figures are not yet available. It is believed, however, that only some twenty cases of plague have occurred among several thousands inoculated, and that only three or perhaps four have been fatal.

Similarly out of some 600 inoculated dependents of His Highness the Aga Khan at Poona, all are believed to have escaped plague, though mixing freely with the general community among whom the disease was exceedingly severe.

The people at Undera are thoroughly convinced of the efficacy of inoculation and those of a neighbouring village (Jotai), where plague is now prevalent, sent in a deputation of their headmen to implore that they might be done. Arrangements were made to do as many as possible the following day.

It seems to me that these cases go very far to show the great value of the process. Those at Damaon and Undera have been carefully verified by independent observers, while some of the others have been already published and have not been challenged. How long the protection lasts can only be established by time, but were it only for a few months, we should have a valuable aid in saving people from attack during an existing epidemic. There is reason to believe, however, that it lasts much longer than this, for the large numbers inoculated during the first epidemic both in Bombay and Poona have, with very few exceptions, escaped the disease during the recrudescence.

The position, therefore, seems to warrant Goverment in extending facilities for inoculation and inducing the people to accept it by all legitimate means. The serum takes some six weeks to prepare and the *technique* of the process requires great care and can only be carried out by experts, but the actual inoculations can be done by any medical officer according to printed instructions. The operation is painless, but the serum causes a certain definite reaction in which the temperature rises to about 102° F and local irritation at the seat of infection usually lasts some days and is frequently severe. This makes people shy of undergoing inoculation unless they have something to gain by it, and the fear of plague is in many instances insufficient to overcome these objections. Most people take an optimistic view of their chances of escaping plague—as YOUNG says, "All men think all men mortal, but themselves"—and, considering that the total mortality in both the Bombay outbreaks has been little more than three per cent., the chances of an individual escaping are very large—thirty-two to one.

* By Surgeon-Major Bannerman, Madras Medical Service; Surgeon Captain Dyson, Bombay Medical Service, M. Haffkine and myself.

Current Medical Literature.

MEDICINE.

Extreme Hæmatemesis treated by Perchloride of Iron.

Two interesting cases are submitted by ST. GEORGE REID ESQ, M.R.C.S.E. The first, a woman *æt* 43, had for 9 months suffered from pain after eating, but had not been treated for it. She was at work when the hæmatemesis occurred with such violence that the floor and her clothes were soaked with blood, and there was beside her a small wash basin half full of blood, when medical aid arrived. She was pulseless, with pupils widely dilated and lips blanched, and apparently dead, but for the pulsations of the heart that could barely be detected. After partial revival under the usual treatment, she was placed on her back and given teaspoonful doses, every hour, of a mixture of pounded ice, glycerine and liquor ferri perchloridi. In 12 hours the quantity of ice and glycerine was increased but the iron was kept at 15 minims. The ice was then substituted by ice water and in two days she was taking ℥i of the mixture every four hours but nothing else by mouth. She was kept absolutely still on her back and fed *a recto* for 15 days, after which she drank beef essence and milk. She made a perfect recovery and now (8 months after the attack) can do the hardest work and eat any kind of food without the slightest inconvenience. The second case, a delicate woman, *æt* 33, was under treatment for gastric ulcer and hæmatemesis for a month during which she had three times vomited blood, and on the last occasion she was very collapsed and speechless with a very faint and rapid pulse and shallow breathing. She received the same treatment as the foregoing case, and making a slow but steady recovery, was five months later reported to be perfectly well and without the slightest pain after food.—*Brit. Med Jour.*

Treatment of Epilepsy.

DR. PAUL FLECHSIG states that, by his bromide-opium method of treatment, in a series of fifty cases he has had six excellent results, with cessation of attacks for two and one four years. All the patients presented the following:—(1) long duration of the disease, some even twenty years; (2) other treatment, and particularly by bromides, has been without avail, (3) all kinds of psychical phenomena were present, such as weak memory, lack of nerve tone, irritability, morbid fear; (4) a "torpid" constitution, generally with anæmia. As a rule, he does not begin with the combined opium and bromide treatment, except in those cases in which the disease has apparently developed through fear, sorrow, &c.; but starts with the ordinary bromide treatment. He uses the opium when bromides do not affect the disease, when bromidism begins, &c. The reasons for the good results of this treatment are as yet not positively known. The writer regards diet, rest in bed, rectal enemata, &c., as important accessories to the treatment. It may be that the opium produces its good effects in overcoming the nervous irritability and the causeless fear of these patients, for most epileptics are psychically perturbed. The patients must be treated as if quite ill, i.e., they must be under the continued observation of the physician and of a reliable nurse.—*Clin. Jour.*

Aphasia.

THE object of treatment is to restore the conduction of impulses along the usual paths or to open up new paths. In amnesic aphasia, endeavor to strengthen the defective recollection of words. Learn the words by heart, and then adopt short reading-exercises. The exercises should be performed in front of a mirror, so as to enable one to recall the memory of the necessary movements. In motor aphasia other parts of the brain may take on function. Single sounds, then syllables, and then words, are taught. Along with the articulation exercises, writing-exercises with the left hand should be performed. Teach the patient to form words from printed letters. Sensory aphasia is far more difficult to teach. First attempts are made by means of written language. Develop lip reading, combining with it reading, writing, and other exercises. These cases are often complicated with a combination of different forms of aphasia. Much patience is required. Results so far encourage further efforts.—*N. Y. Med. Rec.*

Treatment of Diabetes.

As his investigations have convinced him that (1) the rigid exclusion of carbohydrates from the diet does not cause the disappearance of the sugar which is *always* present in the blood, and (2) that the increased albumen decomposition from a purely nitrogenous diet means loss of body weight by increased metabolism which diabetics are especially predisposed to; but which the injection of carbohydrates retards, MONSON says that as diabetes have by no means lost the power of burning sugar, they should be placed under no different conditions of diet than are granted a healthy person. If anything they *must* be allowed sugar; even more than in health, the form of carbohydrates, to overcome the loss of weight and muscular weakness that may eventuate in death by asthenia as well as to prevent and retard the production or formation of various toxic bodies, and the severe and often fatal nervous and cerebral symptoms which they induce in the diabetic subject.—*Jour. Amer. Med. Assoc.*

Complications of Dysentery.

BEING an infectious disorder, dysentery may present complications analogous to those observed in various microbian pyrexias. As a contribution to the study of these complications, which are still imperfectly known, F. ZAGATO reports three interesting cases encountered by him during a severe epidemic of dysentery which raged in a small borough in the valley of the Po. The patients had suffered from severe attacks. Once on attempting to rise noticed that he could scarcely raise his right arm. Several days later the loss of power was complete and presented the form of a paralysis having all the characteristics of an infectious peripheral monoplegia. It disappeared a month after convalescence.

Both the other patients were seized by acute nephritis with excessive albuminuria and multiple œdema, the nephritis beginning, as in scarlatina, with the decline of the original disease. Cure took place under the influence of an appropriate *régime*.—*Le Bulletin Médical.*

Results by Flechsig's Opium-Bromide Treatment of Epilepsy.

DR. KELLNER, who has over one hundred epileptics under his care at the Alsterdorf settlement tried Flechsig's treatment in twelve cases. These twelve patients took large doses of opium very well. In none of the cases was there any cure effected, but six cases were much improved.

There was hardly any gastric disturbance of importance to combat, and in all the twelve cases the opium treatment could be carried on for six weeks without interruption.—*Treatment.*

SURGERY.

Death from Catheterization.

At a recent meeting of the Vienna Medical Club, Dr. Otto ZUCKERKANDL described a curious case of stricture of the urethra by which death occurred two hours after catheterization. The patient, aged thirty-four years, had for two years been suffering from urinary troubles due to an annular stricture of the membranous part of the urethra. Dilatation was performed by Charriere's instrument, No. 15, and was within two weeks continued to No. 20 without any accident. The urinary troubles then disappeared and the patient remained well for a year. When Dr. ZUCKERKANDL saw him again he was well-nourished, but his skin and mucous membranes were pale, and the state of his urine showed the existence of purulent catarrh. A sound on being passed up to the stricture made its way out of the urethra and traversed the corpora cavernosa in various directions. After some ineffectual trials the stricture was at last passed by a No. 12 metallic sound, whereupon the patient was seized with nausea and rigors and died in collapse after four hours. *Post-mortem* examination showed in the bulbous part of the urethra an annular stricture permeable only by a slender sound; above and below this place the mucous membrane was marked with reticular scars, between which there were numerous apertures of false passages leading into the corpora cavernosa. There was also fatty degeneration of the heart-muscle. Death from catheterisation, said the speaker, is an extremely rare accident and may be preceded by urethral fever. French writers such as CLADO, HALLE and ALBARRAN have proved that urethral fever is an infective process originating in the urinary organs and, according to them, is due to bacterium coli. Dr. ZUCKERKANDL also made some reference to death after catheterisation without fever. There are cases where anuria due to reflex action follows catheterisation and proves fatal, and in hypertrophied prostate death may be the result of an attempt to introduce a sound. This is most likely to happen with patients who are suffering from incomplete retention of urine and whose distended bladder rises above the umbilicus. In these cases a trifling irritation of the genito-urinary tract—even the evacuation of the bladder—may aggravate latent disease of the kidney and rapidly bring about a fatal result.—*Lancet.*

Surgery of Chronic Peritonitis.

As the setting free of adhesion or the division of a band of organised lymph often immediately removes intolerable gastric or gastro-intestinal disturbance and chronic obstruction, LANGENAU advocates abdominal section for chronic peritonitis of the peri (cæcal,—cystic,—gastric,—hepatic), pelvic and above all traumatic or postoperative types as well as in the ascitic or the dry form of tuberculous peritonitis; but care must be taken that the disease is not assuming a temporarily acute form when the abdomen is opened. As the diseased peritoneum is not always easy to distinguish and the intestines is often adherent, the abdominal wound should be small and the deeper tissues divided *with great care*; but the lower end of the incision should be brought low down in the female subject since it is important to explore the internal genital organs which are often the primary seat of the whole mischief. The cæcum and appendix must be searched and tuberculous disease of the omentum or ulcerated areas in the small or large intestine looked for. The main part of the operation is *thorough* drying of the exposed cavity, DOUGLAS's pouch and all diseased peritoneum, lying under coils of intestine, with fine sponges or compresses. It is very important to close the abdominal wound carefully. Washing out with chemical solutions or flushings of the peritoneum are superfluous—often harmful—and drainage is compulsory only when the intestine is ulcerated.—*Progrès Medical.*

A form of Neuralgia occurring in Cyclists.

W. H. BROWN, F.R.C.S.I., says:—"Cyclists cannot be too particular as to the kind of saddle, as he had several cases where an ill-fitting saddle exerted an injurious pressure upon the nerves of the perineum. The lady patients complained of excruciating pain at the anus and the skin round about, so much so that in one case in particular defecation caused great distress, though there were neither piles nor fissures to account for such suffering. Among the male patients he noted scrotal and testicular pain with hypoæsthesia of the skin of the scrotum and of the inner sides of both thighs; retention of urine; extravasation of blood beneath the skin of the perineum, and one case complained that after two hours ordinary riding his penis became so insensitive that he could pinch the skin *hard* and feel no pain while the glans had lost its normal sensations. This anæsthesia, which passed off in three or four hours after his ride, returned as soon as he mounted his bike. The treatment under which all of them recovered consisted in rest for rider and bike and local sedative to the affected area."—*Brit. Med. Jour.*

Minute Anatomy of Intussusception.

POWER contributes a most interesting report upon the minute anatomy of intussusception based upon an examination of thirty-one specimens. Some of these were very old, but were so well preserved as to be excellently fitted for microscopic examination. One of them, taken from the cæcum of a child, is of especial interest, as it was shown by JOHN HUNTER to a medical society in the year 1789.

From the examination of these specimens it is clear that any part of the intestinal wall may be affected though the stress of the infection falls most often upon the submucous tissue and upon the circular layer of muscle. The mucous membrane may also be seriously injured. The amount of extravasated blood as well as its seat varies greatly. The extravasation is followed by inflammatory changes, in which the submucous tissue and the circular layer of muscle are chiefly involved. These changes terminate in hyperplasia of the connective tissue, leading to sclerosis; in a tryptic digestion, leading to the disappearance of every element in the wall of the bowel, and the conversion of its connective tissue into reticulin, or in diffuse suppuration and sloughing of the inflamed bowel, which is then separated and cast off by the ordinary process of ulceration.—*Med. & Surg Rep.*

Sterilisation of the Skin in the Area of Operation.

LANDERER and KRAMER of Stuttgart record their experience of the capacities of formalin as a germicide to be applied to the skin of the patient. After the usual cleansing with soap and water, and shaving with the razor, a compress soaked in 1 per cent. solution of formalin is applied, and covered with a sheet of mackintosh. Immediately before the operation, the washing and shaving are repeated; the skin is then rubbed with ether, and finally with corrosive sublimate. Careful bacteriological examination showed the skin to be sterile in 80-90 per cent. of the cases. The wounds in sixty cases healed by first intention, except in three cases of large hernia, in which portions of the think ane were thrown off without any rise of temperature. The special merit of formalin as a disinfectant for the skin, lies in its capacity for acting in the form of vapour as well as of solution; it is thus able to penetrate the deeper layers of the skin, and to act upon the organisms therein embedded. The usual antiseptics, when applied to the skin, are only able to account for the bacteria on the free surface.—*Edin. Med. Jour.*

OBSTETRICS AND GYNÆCOLOGY.

Crossbirths and Cæsarean Section.

TEN-CATE-HORDEMAKER read notes before a Dutch medical society in June, 1897 on seven successful Cæsarean sections. Two were performed for neglected crossbirth cases. MENDES DE LEON objected to abdominal operations for such cases. TEN-CATE-HORDEMAKER and other experienced surgeons could doubtless save a majority of their patients, but the obstetrician and practitioner would be unfavorably influenced by his advice, as they might probably save just as many neglected crossbirths by purely obstetrical manœuvres. TEN-CATE-HORDEMAKER alleged that there was great danger of rupture of the uterus in these cases, and the risk was actually increased if the obstetrician or practitioner attempted embryotomy. On the other hand, STRATZ and KOUWER had performed these obstetric operations without ever causing rupture of the uterus. Professor TREUB, the President, said that he agreed with the opposition, and considered that the meeting should express condemnation of Cæsarean section in neglected crossbirths.—*Brit. Med. Jour.*

The Hand in Obstetrics.

THE hand as a dilating agent is the best obstetrical instrument at our disposal—better than BARNES' bags and the instruments which have come to us from the French school. As a result of extended experience, I am still able to say that in ninety-eight per cent. of all cases, the woman being within six weeks of full term and under surgical anæsthesia, any man can dilate the cervix with his hand sufficiently to enter the uterus and extract the child.

The use of the hand in obstetrics is of the utmost importance. For purposes of dilatation, examination and manipulation, the hand is the obstetrician's instrument.—*Canadian Prac.*

Length of Time a Lying-in Patient should Remain in Bed.

AN extensive series of tests at the Breslau Clinic is reported by BRUTZER which establishes the fact that in certain cases discriminated by the physician, the patient can leave her bed on the second or third day, and that it is injurious rather than beneficial for normal women to stay in bed more than five days at most. Danger of lacerations is much more imminent from defecation or urination than simple moving around. Embolisms do not occur after the second day in normal women if we accept the published statistics. The patients who had quitted their bed early were much stronger when finally dismissed at the tenth day, than who had kept the reclining position longer.—*D. M. Woch.*

Tympanites Uteri.

LINDENTHAL discussed, before the Vienna Royal Society of Physicians, the origin of tympanites uteri, as derived from a series of four cases he had investigated. From these he demonstrated the condition to be due to the influence of organisms. Though a variety of germs were found in the different cases, in all he found an anaerobic bacillus, which was capable of producing gas in large quantities in a short time. The bacillus seemed to correspond closely with the bacillus of malignant œdema. He also stated that, from the fact of the tympanites being present, although the fœtus survived, the former supposition of its origin from fœtal decomposition was untenable.—*Edin. Med. Jour.*

Phenomena attributed to Menstruation.

LAURENT does not entirely disbelieve in certain ideas, popular amongst women in different countries, relating to menstruation. In the sugar refineries in the North of France the female hands are carefully kept out of the premises when the sugar is being boiled, and also when it is undergoing the process of cooling. The objection to women is that if one or more were menstruating the sugar would be blackened. A similar notion prevails in Cochin China in respect to the preparation of opium. Another doctrine, also common to Europe and Asia, is that the hands of a menstruating woman break objects of strength and toughness. Especially is this notion entertained in relation to stringed instruments. A performer on the double bass at a theatre in Paris declared that if his wife touched one cord of the instrument during her "period" it snapped at once. Two young women, excellent violinists, informed LAURENT that they never played when menstruating, as the snapping of cords interfered greatly with the performance. One of these ladies admitted that she was extremely nervous and irritable at the period. Several much more credible phenomena have been reported, and clearly come under the head of neuroses. Young girls sometimes acquire an idea that their clothes stick to them at the period. Such a person gets nervous during the catamenia, and trying to pull off a tight glove fails, and then believes that it sticks to her. Since she thinks that the same must be the case with her clothes, she loses the power as well as the will to pull them off. LAURENT observed this in two sisters. Their body linen did not stick to the skin through perspiration or any visible cause, but it could not be taken off during a "period" till a servant pushed her hand between it and the skin.—*Brit. Med. Jour.*

Indications for Curettage.

DR. LANCASTER in the Virginia Medical Semi-monthly sums up the indications for curetting the uterus as follows: 1. All those cases of persistent leucorrhœa, with tender and subinvoluted uterus. 2. For dysmenorrhœa in young girls and maiden ladies who, in spite of internal remedies, must spend two or three days out of each month in bed, and in whom an undeveloped and oftentimes flexed uterus is found. 3. For barrenness, when the fault is plainly with the women, and no tangible cause other than poorly developed uterus exists for failure to conceive. 4. In all cases of menorrhagia, whether from fibroids, polypi, or other neoplasms, especially in the menorrhagia occurring at "the change of life," and which is not amenable to other treatment. 5. In all septic diseases of the uterus or its appendages, whether following accouchement, abortion, operations, or gonorrhœa, whether the inflammation be acute or chronic, curettage is indicated, and the earlier the better. —*Med. Times & Hosp. Gaz.*

Hæmorrhage at commencement of Pregnancy.

SEVERE flooding occurring 15 days after suppression of menses of a multipara in her fourth conception MIGHLIEFF stopped the flow by tampon; but as hæmorrhages recurred causing severe anæmia, he advised the induction of abortion which she refused to submit to. So gestation was allowed to proceed, and later on when the fœtal heart sounds were audible, a sero-sanguinolent discharge persisted. The woman had not reached full term when this paper was read. In another case, where there was twin pregnancy, the delivery of the second fœtus was followed by the extraction of a great red mass (a very large thrombus) with much liquor amnii. The patient said she had been struck on the abdomen. Anæmia compelled TREUB (*Lancet*) to induce abortion in a patient who had uterus bipartitus from one cornier of which he removed a living fifth-month fœtus and from the other an aborted ovum.—(*New Arch. f. Obstet. et de Gynec.*

PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

Contribution to our Knowledge of the Thyroid Gland.

THE hitherto views of (a) the thyroid being an organ so necessary to normal life that the products of metabolism occasioned by its loss poison the central nervous system, inducing metabolic disturbances (cachexia and tetany) that cause serious illness and death, and (b) the administration of thyroid extract (secretion) acts as an antitoxin to such products and prevents these symptoms by the iodothyrin which is formed and stored in the gland are flatly contradicted by HERMANN MUNK whose experiments show—

(1). That while the thyroid gland is *not* absolutely necessary to life or health, its removal is seldom or never followed by ill effects, and those animals that survive the operation grow healthy and fat Thyroidectomized cats conceived and bore healthy kittens.

(2). If kept in captivity after any serious operation, most animals refuse to eat, and this accounts for the cachexia Some animals never show any symptoms at all, in others spasms and tetany arise at very varying periods after operation, and these attacks may never recur or may recur many weeks after, and may result in death, but there are no myxœdematous symptoms and everything goes to prove that after thyroidectomy metabolic products do *not* poison the central nervous system so as to produce tetany and a special (myxœdematous) cachexia

(3) The giving or withholding of thyroid gland preparations makes no difference to the animals on whom thyroidectomy has been performed

MUNK admits the removal of the thyroid endangers life, but contending that *few* of the experimenters, whose views he opposes, knew the clinical features of tetany in animals, he argues that if an animal remains in good health for weeks and months after the removal of the thyroid, that gland is certainly *not* an organ necessary for life, and one cannot therefore maintain that all animals necessarily die of tetany or cachexia after removal of the thyroid, if they fail to die of some intercurrent disorder, while there is no kind of evidence to show that thyroid substance has any antitoxic influence on the metabolisms supposed to be evoked by excision of the thyroid gland.—*Edin. Med Jour.*

Role of the Blood-Vessels and of the Parenchyma in Inflammation,

R. VIRCHOW claims that inflammation shows itself as an irritation, both of the blood-vessels and of the nerves, of the specific as well as of the non-specific parenchyma He differentiates four kinds of inflammation, exudative, infiltrating, parenchymatous, and proliferating The irritation is generally of a chemical, occasionally of a mechanical nature Proliferation is only a peculiar form of cellular power, it always implies the formation of new material The "new material" need not be taken directly from the vessels, since this form of inflammation (the proliferating) likewise occurs where there are no blood-vessels, in the latter case the cells take their material from their surroundings through their power of attraction. Nourishment consists in the assimilation of the taken-up material, the cells having the peculiar innate elective power of absorbing from the neighbouring tissues what is best suited to them at that time. Heat and redness do not occur in inflammation of non-vascular parts. Inflammatory redness is due to irritation of the nerves. The result of parenchymatous inflammation is fatty metamorphosis. This inflammatory fatty metamorphosis is to be distinguished from the non-inflammatory; the latter [illegible] nutritive disturbances. The former always implies, as a condition preceding the fatty change, either cloudy swelling or cellular proliferation, both caused by the attractive power of the cells. In conclusion, VIRCHOW remarks that the fibrin in inflammation can very often be regarded as the product of parenchymatous metabolism.—*N. Y. Med Rec.*

Pathological Physiology of Thrombosis or Blood Coagulations.

CORNIL gives the results of a study of the changes he has observed in the process of clotting of the blood within the vessels during life. Organisation of the intravascular blood clot is made at the expense of the endothelial cells lining the lumen, both in veins and arteries, the fibrinous network of the clot serving only as a scaffolding or support for their development The phenomena of organisation are very rapid On the first day there is a modification of the endothelial cells Capillaries appear about the third or fourth day, and connective tissue about the ninth or tenth. Infection of the blood clot delays both the extent and rapidity of the process of organisation, though a certain degree of traumatism may favor them. The phenomena of organisation are everywhere the same, *e g* vessels, heart, lung, and ordinary connective tissue It is always the lining endothelium which starts the process, and it is most perfectly seen in the connective tissues.—*Edin Med Jour*

Microbes in Acute Rheumatism.

DR SINGER of Vienna has examined 92 cases of acute rheumatism, and in a great number of patients has ascertained the presence of staphylococci and streptococci He has examined the blood, urine, synovial effusion, and various complications during life In three necropsies he was twice able to find the same microbes that he found during life, in one of them the synovial effusion was sterile, though the walls of the synovial cavity contained bacteria, in the third case there were hæmorrhages in the periarticular tissue, and in these hæmorrhages he found groups of streptococci SINGER considers that the necropsies explain why arthritic effusions in cases of acute rheumatism are found often to be free from microbes in such cases the bacteria probably have their seat in the periarticular tissues only SINGER believes that these microbes are the actual cause of acute rheumatism, which shows its pyæmic nature by its relations to erythema multiforme, sorethroat, etc He therefore does not accept the view that the action of salicylates is actually specific.—*Berl Klin Wooh*

The Gonococcus.

DR HENRY HEIMAN, of New York, who has been conducting an extended series of experiments with the bacilli of gonorrhœa, has summarized his work as follows —

1 The gonococcus can be kept alive in certain liquid culture media as long as eighty-two days

2 The gonococcus can be transplanted probably indefinitely from one culture medium to another. I succeeded in transplanting it twenty-five times

3 Fifteen cases of chronic urethritis, pronounced on clinical evidence cured, were found to be entirely free from gonococci when judged by cover-glass preparations and cultures

4. The statements of STRAUSS, PESCIONE and BRAUD that the gonococcus occours in the normal urethra is not satisfactorily proven in their published experiment

5 Rectal gonorrhea can often be detected by suitable examination. In two out of four cases of my own, bacteriological diagnosis was possible

6 Gonorrheal arthritis may be a sequela of ophthalmia neonatorum.

7. My experiments on the inoculation of the eyes of newborn rabbits and kittens with gonococci gave negative results.—*Med. Age.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Bacteriology of Milk.

A YEAR or two ago, the public were startled by the report of myriads of bacteria in every drop of ice-cream, and were very near inaugurating a raid of extermination on the poor Italian itinerant vendors, when it was announced that the ices in the best West End and City cafés were even more prolific in bacteria because richer in cream. On the other hand, Sir W. ROBERTS showed long since that milk (as well as blood and urine) drawn direct from the body through sterilised tubes into sterilised flasks stopped with sterilised cotton-wool would, without boiling, remain unchanged for months or years. The fact is that all so-called "spontaneous" changes—curdling, souring, etc.—are the work of agents introduced from without, though, under the ordinary surroundings of industrial and social life, practically unavoidable. The actions of B. coli, B. typhosus, and other pathogenic or excremental organisms, have been carefully studied, to the neglect to some extent of those which are ubiquitous and non-pathogenic—a grave omission, since these may prove directly or indirectly no less dangerous to life. C. GUENTHER and H. THIEMFELDER show that the ordinary coagulation of milk is due to one species of bacillus absent from fresh drawn milk, but always present in large numbers a few hours later. It is 1 *u* + 0·5 *u*, stationary, not sporiferous, colored by GRAM'S method, gives rise to lactic acid, grows best in saccharine solutions at 28° C, with or without access of air; it does not liquefy gelatine, gives off no gas, forms a dew-like film on the surface of agar, grows badly on potato, and not at all on wholly non-nitrogenous media.

A. LEUBERT, describes a bacillus (B. I of FLUGGE) which peptonises milk It is short and thick, very mobile, and, in strong contrast to that above described, has no action on sugar or fat, but liquefies blood-serum and reduces albumin in twenty-four hours to about one-thirtieth by peptonisation. Such milk may be drunk by adults with impunity, but is dangerous to children. The poison does not seem to be in the cases nor peptones formed but in the bodies of the bacilli themselves.

Streptococci and staphylococci may be found along with pus cells in the milk of cows suffering from "garget," mammitis, or mastitis, and abscesses in or near the gland. They are best detected by centrifugating the milk, drying some of the thickest deposit on a glass slide, washing out the superfluous fat with ether and staining. Much infantile diarrhœa is doubtless caused by such milk, and outbreaks of gastro-enteritis among adolescents or adults have been traced there-to.—*Prac.*

How to Prevent Typhoid Fever in Rural Districts.

BASHORE says that the introduction of cisterns in rural districts will almost entirely eradicate typhoid fever. As an example he cites the experience in a town in Pennsylvania in which cistern water is used almost exclusively for drinking purposes because the limestone underlying the soil makes it impossible to obtain good well water. In this town, within the last five years, there have been only three cases of fever which were plainly typhoid, but even calling them so and reckoning one death for every twenty-six cases, would make the death-rate in this community from typhoid fever something like one per ten thousand. The unpleasant taste of cistern water is due to decomposing vegetable matter. This can be in a great measure avoided by having a "cut-off" by which the first water of the rainfall is turned into the street, and not into the cistern. Further improvement in the water can be readily obtained by dividing the cistern by a brick partition, filling one-half of this to a depth of three feet with a filter of coarse sand and broken stone. The water is allowed to run into the side which contains the filter. It then passes through the filter and through holes at the bottom of the partition into the other side of the cistern from which it is pumped out for use. In this manner pure water may be obtained at small expense, and the family using it will absolutely avoid the possibility of having typhoid fever.

Diet and Health.

For breakfast I have a large cup of tea, with milk or cream; brown bread from two to three ounces; and usually one and a half ounce of fish, or half that quantity, and that very rarely, of bacon. Sometimes for a few days I take a cup of coffee with half milk, but no fish or bacon. Lunch is a cup of cocoa or chocolate, if the weather be cold; if it is warm, a small tumbler of milk, about six ounces, with the same quantity of bread as at breakfast. At both meals I use butter, not a quarter of an ounce, and quite as much jelly or marmalade. This is my usual lunch, but occasionally instead of cocoa I have a baked apple, or some prunes with milk, or strawberries and cream so long as I can get them, or, very rarely, vegetable soup. When I have no milk I take usually a morsel (not half an ounce) of cheese. At 4 p.m., a small cup of tea, and sometimes biscuit or cake. For dinner, at seven, which is my chief meal, I have soup, from peas, lentils, potatoes, celery, carrots, etc., the first two made with no meat stock, and the others with a little from lamb or a bone; or fish soup, the only animal soup I indulge in. Fish, mostly white deep-sea fish, direct from Montrose Of this I take no more than three ounces with a potato and always another vegetable fresh from the garden. If there is no fish, I may take once or twice a week an ounce or two, certainly not more, of lamb, game, rabbit, or tripe; but often I have neither fish nor flesh. The dinner ends with stewed fruit with cream, or pudding, or fruit tart; of these I take a fair helping. During the winter season instead of fruit or pudding, I often have celery, with cheese, oatcake, and butter. On this diet I enjoy the best of health, and for my age (seventy-eight) am up to a fair amount of exercise, walking three to six miles daily in good and sometimes in bad weather, and usually part of this is up a steep road with a rise of 250 feet. The only confession I have to make is, that when at home, I do not rise till I have had breakfast and read the newspaper. This is a habit I have recommended to many approaching my own age, and those who have tried it admit that they are stronger for the rest of the day. I enjoy breakfast just as much as my other meals, though I never feel what can be called hunger, and have not done so for many years. I could omit a meal at any time without discomfort. This I have long looked upon as the best proof of perfect digestion. During very warm months I take rather less bread and butter, and I do not try to make this up by taking anything else.—GEO. KEITH, in the *Practitioner.*

Medico-Legal Question of the Infection with Syphilis of the Nurse by the Nursling.

As either may have contracted the disease from the other or the attacks may be independent, and as in the event of an action being brought the question of priority of syphilis in nurse or child must be determined to enable a true verdict, Professor FOURNIER points out that in examining the child the first point to be proved is "whether the syphilis is acquired or congenital" and the absence or presence of chancre must be first ascertained and every case in which secondary symptoms occur within the first eight weeks of life *is* congenital not acquired because the secondary symptoms of acquired syphilis can *not* appear before 60 days since the incubation period of chancre is 20 days, to which add the second incubation period of an average 40 to 45 days. Again, the presence of lesions such as nasal and cranial deformities, coryza, pemphigus, marasmus, epiphyseal dislocations, &c., peculiar to congenital syphilis will decide the question.

In examining the nurse the genital organs must be carefully inspected and mucous patches and erosion distinguished from chancres and especial notice paid to the presence or not of buboes. If a chancre be found in a position likely to convey contagion to the nursling, and its induration and the existence of an indurated axillary bubo noted, there is no need for further evidence, but should there be no sore, other relics of syphilis must be looked for and the previous condition of the nurse, her husband and her own child must be closely investigated. The condition of her own child is of the highest importance, as its immunity is almost absolute proof of the immunity of the mother. Syphilitics may very rarely bear apparently healthy children, but this is scarce probable when the mother has recent secondary syphilis present.—*Lancet.*

THERAPEUTICS AND PHARMACOLOGY.

Hyoscin and Hyoscyamin as Mydriatics.

EMMERT is surprised at LANDOLT and GYGAX saying in their recent *Pocket-book of Therapeutics for Ophthalmic Surgeons*, that "hyoscin and hyoscyamin have been abandoned owing to their uncertain action." For the last sixteen years EMMERT has found hyoscin to be the most constant and reliable mydriatic we have, and this has been the experience of many others. As to the hydrobromate it is a very stable salt, and has been introduced into both the Swiss and German (under the name scopolamin, which is identical with hyoscin) pharmacopœias. Its advantages over atropine are: (1) It dilates the pupils more quickly; (2) the mydriasis does not last so long, and the paralysis of accommodation lasts about the same time, and this is an advantage for healthy eyes; (3) it cures inflammatory affections of the eye quite as quickly as atropine; (4) even if used for a long time it has no local irritant action (as "atropine conjunctivitis"); (5) it is five times more powerful; (6) used in solutions as strong as 1 in 500 or even 250, any general intoxication is very rare, and even if present, quickly passes off and is not dangerous; a solution of 1 in 1,000 is usually sufficient, and never causes poisoning; (7) intraocular tension is not influenced in chronic, though hyoscin is contraindicated in acute, glaucoma; (8) instead of stimulating the cerebral cortex and quickening the pulse like atropine, it has a paralysing action on the former and slows the pulse, and hence is much safer in heart disease. Considering the weaker solutions required, it is practically as cheap to use as atropine. As regards hyoscyamin, its little use as a mydriatic is not due to an uncertain action, but because it has no advantages over atropine.—*Brit. Med. Jour.*

Internal administration of Salol in Scleroderma.

THIS being a disease sometimes tending to spontaneous recovery, some reserve is necessary when speaking of the curative action of remedies in scleroderma of which rheumatism has also been regarded as an etiological factor; but A. PHILIPPSOHN claims to have obtained good results in scleroderma by the internal exhibition three to four times daily of 7 to 15 grain doses of salol. Massage and gymnastics are also indicated where muscular atrophy or contraction has set in.—*Treatment.*

Serum Treatment of Leprosy by the Carrasquilla Method.

BLOOD to the extent of 250 cc. (about ℥vij) being drawn from a leper is allowed to stand for 12—25 hours, when the blood serum, drawn off under antiseptic precaution, is slowly filtered through two layers of wadding (between which is interposed a layer of camphor) into flasks and sterilised, 15 to 60 cc. of this serum are injected beneath the skin of a horse. The injection is twice repeated with 10 days' interval and 10 days after the last injection 1 to 3 litres (from 35 to 106 ounces) of blood are drawn from the horse, and its serum, separated as was the leper's blood. The leper to be operated on is first injected with 0·5 cc. of this horse serum the quantity of which is every third day raised by 1 cc. at a time till 20 cc. have been attained unless the reaction is too lively. CARRASQUILLA and MEDINA, who thus treated 100 lepers, claim amelioration in all and cure in some; but HALLOPEAU was not so successful with his 9 cases and JEANSELME declares the serum is not pure enough to yield the results claimed for it, since leprosy also mends spontaneously.—*Treatment.*

Thymol in the treatment of the Fever of Tuberculosis.

E. DE RENZI finds that thymol is a valuable remedy in the treatment of this often obstinate and troublesome symptom. He finds it to be of distinctly greater value than quinine, antipyrin, acetanilid, and sodium salicylate, as unlike these the thymol has no depressing effect. It is administered in four-grain doses in the form of a powder enveloped in a wafer. These may be given three or four times a day, and gradually increased in frequency until sixty or seventy grains are given each day. He finds that tuberculous patients are very tolerant of large doses of thymol, and that it is well borne by the stomach, it seeming to favor digestion.—*Medicine.*

Atropin in Delirium Tremens.

THE remedies employed in delirium tremens are only relatively effective, but cold baths affect the syndrome favorably. Reasoning from the assumption that they stimulate the inhibited cerebral centers, TUWIM, of St. Petersburg, has been trying atropin, which also stimulates the centers, and announces that it is extremely successful. In ten out of eleven cases a single injection of one milligram of atropin threw the patient into a calm and deep sleep in fifteen to twenty minutes. In the one case in which delirium persisted it was complicated with erysipelas, and yielded finally to a cold bath. He recommends, therefore, subcutaneous injections of atropin, supplemented, if necessary, by cold baths in the treatment of delirium tremens.—*Semaine Méd.*

Unna's Ichthyol Ointment for Profuse Sweating of the Feet.

Ichthyol	...	...	25 parts.
Water ...	...	...	15 „
Lanolin	...	...	25 „

M. Oint.—*Prac.*

Acne with Constipation.

"KASAGRA" (Stearns Cascara Aromatic) in laxative doses preceded by a saline laxative. After the proper dose of the kasagra has been ascertained in each case, combine with it 1 to 3 drops of Fowler's solution three times a day. If the anæmia is marked use hæmoferrum (Stearns') in conjunction with the above. If a scrofulous condition exists, employ Stearns' wine of cod liver oil. The usual topical applications of sulphur, hot water, green soap, etc., should not be neglected.

Take of kasagra (Stearns' cascara aromatic)	...	...	1 fl. oz.
Fluid Extract of Berberis Aquifolium	...	...	1 fl. oz.
Simple Elixir	...	...	2 fl. oz.

Mix. Sig.: Dose, teaspoonful after meals

Hepatic Stimulant.

"Kasagra"	...	...	1 fl. oz.
Fluid Extract Wahoo	...	...	½ fl. oz.
Fluid Extract Senna	...	...	½ fl. oz.
Fluid Extract Wild Cherry (soluble)	...	...	½ fl. oz.
Simple Syrup, q. s.	...	...	4 fl. oz.

Mix. Sig.: Dose, 1 to 2 teaspoonfuls.

A combination acting especially on the liver and of unusually pleasant and effective action. The wild cherry may often be well replaced by hydrocyanic acid in proper doses, thus giving the combination especial value in dyspepsia as manifested in vomiting and gastric distress with constipation.

Neurasthenia.

THE following formula is said to be useful in neurasthenia:—

Iron Lactate	...	...	2 drachms.
Iron Arsenate	...	...	8 grains.
Extract of Nux Vomica	...	...	7 „
Extract of Gentian	...	...	45 „

M. Divide into a hundred pills. Two to be taken with each meal.

Correspondence.

PLAGUE INOCULATION.

To the Editor, "Indian Medical Record."

Sir,—In the 'Plague Notification," there is one item—inoculation,—which is, in the opinion of the authorities and the Health Officer, a prophylactic of plague. Where are the statistics to prove that it is so? Like the anti-cholera inoculation of M. Haffkine, which was proved by Dr Sanders to be a failure in the majority of cases, and which, we know, signally failed where it was tried, plague inoculation would share the same fate. None will like to introduce a poison into his system, unless he is fully assured, that it is a prophylactic and not attended with any immediate danger. Inoculation, it is evident, did not succeed in Bombay. Did it succeed anywhere? The test of the *vaccine virus* can alone be had in a place, where an epidemic is raging. Has M. Haffkine tried his so-called specific in such a place, and with what result? Our Health Officer, who seems to have a well-balanced mind, ought only to give his verdict in favor of inoculation after extensive trials. Mere assertions of Haffkine will not carry conviction to the minds of the people, unless they are corroborated by *statistical facts*. Educated people cannot encourage fads and faddists, but practical measures and practical men. Mr Risley is an advocate of inoculation, but has he made the experiment upon his own person, or on the person of any of the members of his family? If not, who is to show the way? Unless some Europeans and Indians of high position show the way, the people will not take to it. Preaching is one thing, practice is another The unrest that was subsiding will only increase in its dimensions, if the scarce of inoculation be not thoroughly removed from the minds of the people, and there will be a general stampede of the citizens, both high and low. Why are the authorities over solicitous with regard to a so-called antidote which is even now a puzzle to the scientists? Government, we find, is going to import twenty-five medical officers from Bombay, but why we don't know. Would it not be more advisable to bring out from any part of Europe a sound bacteriologist? There is a cry in the town that the plague has come. We have some knowledge of this subject, and our opinion is that those cases, which have occurred are not real plague cases, but cases of remittent fever with glandular swelling, and they break out at certain season of the year Plague breaks out generally in provinces and countries situated on the sea-coast and places which are adjacent to hills and mountains. In a disputable question, the opinion of other experts must be taken and full reliance should never be placed upon one expert, however high his scientific attainments and bacteriological knowledge be.

Yours &c., A. Medico.

3rd May 1898.

II.

To the Editor, "Indian Medical Record."

Sir,—With reference to a statement by H. H. the Lieutenant-Governor of Bengal, it seems to have been forgotten by His Honor, that since last year, the utmost endeavour has been made by the Municipality and a number of the people at Bombay [illegible] Not only were 53 inoculation [illegible] ling Inoculators (two of whom [illegible] round from house to house and [illegible] gard to the cases of plague seen by [illegible] cutta in 1896, I have already expressed an opinion [illegible] report on plague that Dr. Simpson was absolutely [illegible] and justice was not done to him.

I have not the least doubt that plague has been occurring sporadically in Calcutta since 1896, or possibly even previous to that, and that possibly it is endemic in Bengal. In regard to the measures that are to be taken against plague in Calcutta, I may say that they are practically the same as the measures that were carried out in Bombay in 1896, except that inoculation may be used, as let us hope, on a larger scale.

Rule 17 of the instructions issued by me in September 1896 for the treatment of cases of plague was as follows:—

"Whenever the Medical Officer of a ward is satisfied that the isolation or proper treatment of a patient suffering from bubonic fever is not practicable in the house where the patient is, the Medical Officer is forthwith to call on the Ward Inspector to make arrangements for the removal of the patient to the hospital appointed for that purpose at Arthur Road"

The methods about to be used in Calcutta are practically the same as those that were used in Bombay by the Health Department in 1896. The idea that cases of plague will at once be followed by an epidemic, is a delusion, which may cause a confidence in measures that will not be fulfilled, and a loss of all faith in the right measures when the epidemic comes. The fall in the mortality, previous to the recognition of cases of plague, is an ominous sign often observed In Karachi, the phenomenon may be studied. In the calamity gathering over Calcutta, let not the people think that there is any new method, except inoculation, about to be used, that will save them; for, if they do, they will be disappointed; and great as the hopes excited, deeper will be the despair afterwards. If in the warfare against this disease the pest was easily to have been destroyed, it would not have borne in all ages the terrible designation given to it.

Yours &c. T. S. Weir,

Brigade-Surgeon Lieutenant-Colonel.

Bombay, *2nd May 1898.*

:o:

THE ADVANTAGES OF HOME SEGREGATION.

To the Editor, "Indian Medical Record."

Sir,—At the present moment it might be of public service to enumerate the following advantages which are claimed for home segregation in a case of suspected plague:—

1. The infection remains confined to the locality where it has originated.
2. Quarantine of the infected house can be resorted to if necessary.
3. Voluntary isolation of the sick becomes the rule when there is no forcible removal.
4. Notification of the disease will come voluntarily from the people.

8. [illegible] by the [illegible] as an isolated building.

7. [illegible] inspected [illegible] the case.

8. Removal of plague hospitals and segregation camps are averted, as they themselves become the foci of infection.

9. The infection cannot be transmitted to other healthy parts of the town by the ambulance service.

10. No falsification of the death reports.

11. No panic and therefore no chance of riot.

12. No abandonment or secretion of dead bodies of suspected plague cases.

13. Less strain upon the sanitary inspectors and medical staff.

14. Better chance of recovery of the sick when they have no dread of removal to hospitals.

15. Benefit to the patient when he can get his own medical man to attend him and his own relations to nurse him.

16. No inconvenience to the people for want of menial servants or bazaar supplies.

17. Trade is not paralysed.

18. A better chance of stamping out the disease when the co-operation and confidence of the people are secured.

Yours &c., RAKHAL DAS GHOSH, L.M.S.

CALCUTTA, *14th May 1898.*

———:o:———

ANGLO-INDIANS IN THE I. M. S. OF MADRAS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—You ask for the names of Anglo-Indians who have risen in the service belonging to Madras, I give you a few names :—

Dr. Shortt, who had most of the letters of the alphabet behind his name and took so much interest in snake poison. He sucked a wound of a native who was snake bitten and suffered from symptoms of poisoning, and is supposed to be the first person to have done. He rose to be Surgeon-General and Inspector-General of Vaccination.

Dr. Keess, another Eurasian or Anglo-Indian, rose to be Surgeon-General. From being a student in the military branch of the Subordinate Service he became the Principal of the very College he was educated in. His son is an M.A., and Professor of the Agricultural College, Madras. Another is M.R.C.S., and L.R.C.P. Lond., and is a practitioner in Madras.

Dr. Wilkins, a retired Military Assistant Surgeon who went home and took his degrees and the much coveted F.R.C.S., Edin. He was for years Demonstrator of Anatomy in the Madras Medical College.

Surgeon-Lieutenant-Colonels O'Hara (two brothers I.M.S. Madras).

Dr. H. A. F. Nailor. You will see by the italic letters after his name in the Army List that he is a linguist having passed in Hindustani, Tamil, Persian, (high proficiency in all) and also in Russian. He is an excellent example of a self-made man who worked his way [illegible] without [illegible] a great credit to the [illegible] community.

Surgeon Colonel T. H. [illegible], another Anglo-Indian, partly educated in Madras and partly in Edinburgh, is the son of the Rev. Mr. [illegible], the great Tamil Scholar, now Professor of one of the universities in England in Tamil. There are two other brothers of Dr. POPE, one in the Educational and the other in the Survey. All three are excellent men.

Surgeon-Majors BURTON, NEWLAND, and DACOSTA, Surgeon Captains PINTO, STEWART, PEREIRA, VICKIN, and SUTHERLAND—are all Anglo-Indians. More names another time.

Yours &c., MADRASI,

(Brave Madras ! the Benighted Presidency has a noble record for the Anglo-Indian race. It only needs publication. Let's have the roll.—ED., *I.M.R.*)

———:o:———

PUBLIC ESTIMATE OF OUR EDITOR AND HIS PUBLIC WORK.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Though the annexed article taken from *The Critic* of the 18th April concerns yourself, I trust, for the benefit of your readers, you will not object to keep it out of the columns of the *Record*. An excellent portrait by Messrs. HARRINGTON and NORMAN of Calcutta was issued with this laudatory notice of our Editor :—

"DR. JAMES R. WALLACE, M.D., F.R.C.S."

"Only when genius is married to science" says HERBERT SPENCER, 'can the highest results be produced" —and when to these, allied in close communion, a will that triumphs over all obstacles, and an energy that never tires, such attributes must necessarily mean success to any undertaking with which the possessor is associated.

Dr. JAMES R. WALLACE, whose portrait the *Critic* presents to its readers to-day, is essentially a man of many parts and infinite capacity. As a medical man his name is a household word all over India, and in his recent visit to England he added fresh laurels to his fame by obtaining the much-coveted title of F.R.C.S. His contributions to the *Indian Medical Record*, of which he is Editor, mark him as a vigorous thinker abreast of all the medical questions of the day, while his pen is the pen of a ready writer, demonstrating the truth of VOLTAIRE'S, BULWER LYTTON'S and W. KING'S variously-translated axiom that "the pen is mightier than the sword." He has also been elected a Municipal Commissioner for the Town of Calcutta, a position which this paper feels confident he will adorn with ability and that enthusiastic energy which is one of his chiefest characteristics.

The recently-started Imperial Anglo-Indian Association which has risen like the phœnix out of the ashes of the Eurasian Association, and is already spreading its arms, octopus-like, all over the country, owes its inception principally to the energy and zeal with which Dr. WALLACE has advocated its interests, and so fanned the smouldering flame into a steady, vigorous blaze. In stating this, the *Critic* does not, even in the least degree, wish to detract from the earnest and able co-adjutors of the Doctor, but his recent visit to England, where he

headed a deputation to the Secretary of State to represent Anglo-Indian disabilities with a view to their removal, the time and attention he is giving to the Association, his contributions to various Indian subjects in its interests, all entitle him to special honorable mention, and this paper feels confident that his fellow-directors will join hands with the *Critic* in wishing Dr. WALLACE all the success his energy and ability so richly deserve.

Yours &c., J. M. PEREIRA, M.B., C.M. Edin.

———:o:———

HIGHLY PLACED ANGLO-INDIANS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—This my fourth list as follows, for which you will, I hope, gladly make room :—

1. F. E. Brewin, Examiner, Marine Accounts. Bombay.
2. J. A. Guider, Superintendent of Police, Poona.
3. J. H Irvine, H. M. S. Mint, Bombay. (Died June 1897.)
4. *J. S. Maidment, Assistant Superintendent of Stamps*, Bombay
5. George Miles, Assistant Secretary to Government General Department, Bombay.
6. John Hampton, (Captain) Superintendent Punjab Government Flotilla, River Indus.
7. U B. Bix, Assistant Engineer, P. W. D Karachi Canals (Retired), now Managing Agent, Karachi Tramway Company.
8. William Swanseger, Assistant Auditor-General, Bombay. (Retired) Died at Panchgani, June 1897
9. William Turner, Assistant Secretary to Government, Railway Department Bombay (Retired)
10. J. D'Arcy (Captain), Consevator of Rivers. Punjab.
11. William Pearson, Assistant Secretary to Government, General Department, Bombay.
12. Samuel Abdiel White, Assistant (Uncovenanted) Commissioner in Sind
13. W. A. Blakeman, Chief Superintendent, Accountant-General's Office, Bombay.
14. W Plankett, Deputy Collector, Poona
15. H J. Miles, Deputy Sheriff, Bombay

Yours &c, W. H. T.

———:o:———

CROMBIE TAMASHAS AND THE LIKE, PROHIBITED BY GOVERNMENT.

TO THE EDITOR, "INDIAN MEDICAL RECORD"

SIR,—As a proof that your views of things are generally very sound, I wish to refer to the fact that you referred in scathing terms to the demoralising effect of "sham shows" such as the recent CROMBIE episode, and is it not remarkable that following close upon your condemnation there goes forth the following resolution calling attention to the ideas of the State as to unfitness and impropriety of the very "shams" you recently exposed. Here is an epitome from the *Gazette of India*:—

The Government of India in the Home Department draw attention to their Resolution of the 22nd July 1887, regarding the receipt of testimonials and addresses by Government servants:—By the rules attached to the resolution quoted, all servants of Government are prohibited, subject to the stated exceptions, from receiving complimentary or valedictory addresses in any form or testimonial of any kind; and from attending public meeting or complimentary entertainments or formal public character held in their honor. Several instances have recently occurred in which arrangements for the presentation of testimonials have been made and subscriptions collected apparently in ignorance of the fact that the proceedings were irregular, and that the rules prohibit officials from receiving testimonials of any kind. It has also happened more than once lately that a formal character has been given to farewell entertainments, such as are permitted by Rule 3, by the publication in the newspapers of the speeches made at them. The Governor-General in these circumstances finds it necessary to call the attention of local Governments and Administrations to the rules, and to request that it may be again impressed on all officers that they must be strictly observed. With a view to bringing them to the notice of the public, the Governor-General directs that they be re-published in the *Gazette*. The rules do not apply to the receipt of addresses by the head of any Government or Administration.

Yours &c., MEDICUS.

———:o:———

OUR QUANDAM SUPERIORS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—As I hear that the President of the Madras Municipality, to whom the services of a few Hospital Assistants have been lent by the Surgeon-General with the Government of Madras for Plague Duty, wishes that these medical officers *should work under the orders of his Sanitary Inspectors*, I request you and the numerous readers of your valuable journal to be good enough to inform me whether a Hospital Assistant, who gets a full training both practically and theoretically in almost all the branches of the Medical Science for about *four years*, can in any way be considered inferior or subordinate to a Sanitary Inspector who is instructed *only* in the elements of Hygiene for the short period of *three months*, just because the former draws a less pay ?

I think that these Hospital Assistants ought to be under the immediate orders of Surgeon-Lieutenant J. W. CORNWALL, the Health Officer of the Municipality, (as per orders of the Surgeon-General to the Hospital Assistants, *viz.*, "to report themselves to the Health Officer for orders") or at least under the supervision of his assistant, Mr M. K. MATHEW, L.R.C.P. and S., who is entertained as a temporary measure on account of prevalence of plague in other presidencies, as these officers alone are capable of supervising their work and not the Sanitary Inspectors, the majority of whom are not even able to look after the conservancy staff of sweepers and toties, &c.

Yours &c., A. QUERIST.

MADRAS, *1st May 1898*,

———:o:———

IS IT THE PLAGUE ?

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The following letter has appeared in the *Englishman* —"As a mofussil Civil Surgeon, I have read Mr. RISLEY's statement as to the plague in Calcutta with no little interest and anxiety and I think that more information should be given. The details of each case should be circulated that we may judge whether the clinical symptoms are those of plague. The mere finding of a bacillus is no proof of plague as we know from the 'plague scare' in October 1896. There is of course a 'plague' bacillus, but it is not so typical as we are led to believe.

The strongest proof is that of infection, and we may well refrain from hasty judgment when we know that of those who were isolated with the supposed cases of plague none were attacked. How is it that with a Professor of Pathology at the Medical College and a Bacteriological Laboratory in the General Hospital compound, it becomes necessary to ask for M. HAFFKINE'S assistance? I do not wish to blow my own trumpet or that of my service, but if I could not find ten men in Bengal capable of doing such bacteriological work as is required in a properly furnished laboratory, I would resign the service.

Yours &c., CIVIL SURGEON."

:o:

THE SUN LIFE ASSURANCE COMPANY.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Will you kindly let me know through your columns whether the "Sun Life Assurance Company of India, Limited" is a reliable one. In the policy, issued by it, the word *Limited* is omitted. They say as it is only a branch of the London Sun Life Assurance Company, Limited, and therefore the word limited is not used. It is under the management of GEORGE LUCAS KEMP, Esq., Calcutta. I don't see its advertisements in your esteemed journal.

Yours &c., A. OOMMAN, L.M.S.
Civil Apothecary.

PUNALUR, *28th April 1898*

Book Reviews & Medical Trade Notices.

ESSENTIALS OF PHYSICAL DIAGNOSIS OF THE THORAX.

BY ARTHUR M. CORWIN, A.M., M.D.

(Publishers . W. B. SAUNDERS, Philadelphia.)

THIS very handy synopsis is the Second Edition of a work published not long ago, under another title, and presents in systematic form the gist of the science of physical diagnosis as applied to the thorax. There is an additional section setting forth the signs found in each disease of the chest. The methods of physical diagnosis and the signs in the diseases of the several organs, as detailed in the book before us, should, and will, we feel sure, prove of great value and usefulness to practitioners and students.

MEDITERRANEAN, MALTA, OR UNDULANT FEVER.

BY M. LOUIS HUGHES,

Surgeon-Captain, A. M. S.

(Publishers : Messrs. MACMILLAN & Co., Ld., London. Price *7s. 6d.*)

THE subject treated in this work must necessarily be of great importance to Great Britain as well as to the French, Italian and other Mediterranean nations, being the result of the experience gained by the writer in the treatment of the fever mainly among the Military at Malta. He feels very strongly the need that exists for discovering and removing the cause of "this scourge of the Mediterranean." The work is illustrated with undulatory tables and a series of charts describing experiments on monkeys.

THE PATHOLOGY OF RELAPSING FEVER.

BY L. J. PISANI, F.R.C.S., I. M. S.

(Publishers: Messrs. THACKER, SPINK & Co., Calcutta).

THIS little book, dealing exclusively with the pathology and the methods which should be employed for the detection of the spirillum of relapsing fever, should prove very useful to all medical men, for though the clinical aspects of the disease are generally well described in ordinary text-books very little is mentioned of the pathological changes. It is a handy little volume which is very well got up and has three colored illustrations.

EXERCISES IN PRACTICAL PHYSIOLOGY.

BY AUGUSTUS D. WALLER, M.D., F.R.S.

(Publishers: Messrs. LONGMANS GREEN & Co. Price *2s. 6d.*)

THIS volume forms Part III of a series of exercises and demonstrations to accompany "An Introduction to Human Physiology," and deals with the Physiology of the Nervous System. It is intended to facilitate the class-work of the laboratory, and is meant for advanced students, by whom it cannot fail to be appreciated.

KOLAVIN ; KOLA-STEARNS KOLABON ; KOLACYLS, KOLA CORDIAL

THESE compounds are prepared by Messrs. FREDERICK STEARNS & Co. from fresh undried true African Kola, which, as is well known not only takes the place of food and drink, without impairing the digestive functions, but is also a powerful cerebro-spinal stimulant and therapeutic agent specially indicated in cardiac, pulmonary and renal affections and wherever a bracing tonic is required. It is also an antidote to the opium habit, and has the property of giving greater resistance to muscular fatigue, but does not make its patient its slave like Coca does.

CARBOLIC SMOKE BALL.

EVERYBODY knows the immense value of carbolic acid as a germicide and how difficult it is to handle this substance. Influenza is very troublesome also, but has been known to yield to carbolic smoke. With these facts in mind the British Druggists, Limited, of 86 Clerkenwell Road, London, have devised a handsome and handy inhaler (the carbolic smoke ball) which costs very little compared with the great good does in all catarrhal diseases. For further particulars apply to Messrs. BARKER BROTHERS, 150, Dharamtala Street, Calcutta.

Government Medical Gazettes.

GOVERNMENT OF INDIA.

Surgn.-Lieut.-Col. James Charles Harding Peacocke, I M. S. (Bombay), Civil Surgn., Karwar, is permitted to retire from the service, from 14th May 1898.

The undermentioned senior Asst. Surgns., I. S. M. D., are permitted to retire from the service, from the dates specified :—

Hony. Surgn.-Capt. Joseph Holmes (Bengal), 17th Feb, 1898.

Hony. Surgn.-Capt. Francis Green (Madras), 9th Sept, 1897.

Surgn.-Lieut.-Col. Percy deHaga Haig is granted the tempy. rank of Brig.-Surgn.-Lieut.-Col. from 9th Aug. 1897.

The services of Brig.-Surgn.-Lieut.-Col. A. M. Branfoot, M.B., I. M. S. (Madras), are replaced at the disposal of the Mily. Dept., from 28th April 1898.

Mily. Asst. Surgn. Charles Reginald Washington Bancroft, having passed his deptl. exam., is entitled to the enhanced rate of pay of his class, from 15th April 1897.

BENGAL GOVERNMENT.

Surgn.-Capt. C. B. M. Green to act as Supdt., Campbell Med. School and Hosp., Sealdah.

Surgn.-Major A. H. Burlton, A. M. S., Stn. Hosp, Dum-Dum, to have charge civil med. duties at that station from 6th Jany.

Surgn.-Capt. H. W. Pilgrim to act as Civil Surgn. of the 24-Parganas.

Surgn.-Capt. D. M. Moir, second Resdt. Surgn., Presy. Genl. Hosp., Calcutta, to act as First Resdt. Surgn.

The services of Miss M. M. Tytill Christie, M.D., an Inspg Med. Officer at Chanda Station, B. I. R., are placed at the disposal of the Sany. Commr., Beng.

Asst. Surgn. Annoda Prosad Ghosh, Raniganj sub-div. and Dispy., to have tempy. med. charge Burdwan Dispy.

Asst. Surgn. Suresh Chandra Banerjee, Asst. Suptd. of Emigration at Raniganj and Asansole, to have tempy. med. charge Raniganj sub-div. and Dispy.

Asst. Surgn Chunder Coomar Gupta, Burdwan Dispy. leave for three months.

Asst. Surgn. Satis Chandra Basu, Puri Dispy., did supy. duty Med. College Hosp., from 15th to 20th April 1898.

Asst. Surgn. Jogendra Nath Ghosh, Teacher of Midwifery, Campbell Med. School, leave for two months.

Asst. Surgn. Devendra Nath Bag, Teacher of Medical Jurisprudence, Campbell Med. School, leave for two months.

Asst. Surgn. Bhola Nath Pal, a sapper Med. Coll. Hosp., leave for three months.

Asst. Surgn. Maso Mohun Gupta to do supy duty Med. Coll Hosp., Calcutta, from 16th April 1898.

Asst. Surgn. Sarat Chunder Sur, a supy Med. Coll. Hosp., to have tempy. med. charge of Kishoreganj subdiv. and Hybutnugger Dispy., Mymensingh dist.

Asst. Surgn. Surat Lal Basu, Kishoreganj sub-div. and Hybutnugger Dispy., leave for three months.

Asst. Surgn. Kasi Nath Ghosh, Samastipur sub-div. and Dispy., leave from 24th June to 3rd July 1897, in extension of that granted to him on 15th May 1897.

PUNJAB GOVERNMENT.

Asst. Surgn. Inayatulla Nasir, Sadar Dispy., Gurdaspur, is placed in med. charge Gurdaspur, from 16th April 1898.

Asst. Surgn. J. T. Weston resumed charge civil med. duties of Hissar, 18th April 1898.

Asst. Surgn. J. T. Weston, Civil Surgn. of Hissar, is deputed on special duty in connection with the plague, Jullundur dist., from 19th April 1898.

Asst. Surgn. Hardial Singh, Gujrat Dispy., is placed in civil med charge Gujrat dist. from 8th April 1898.

Surgn.-Major L. T. Young, Civil Surgn of Umballa, has obtained furlough to Europe for six months.

Surgn.-Major M. J. Sexton, A. M. S., is placed in civil med charge of Dalhousie, from 17th April 1898.

Surgn.-Major L. T. Young, Civil Surgn, to officiate as Civil Surgn., 1st class.

Surgn.-Lieut.-Col. A. W. Mackenzie resumed charge civil med. duties of Abbottabad, 16th April 1898.

The services of Surgn.-Major J. A. Cunningham, M.D., M Ch, I.M.S. (Bengal), are replaced at the disposal of the Govt. of the Punjab.

CENTRAL PROVINCES GOVERNMENT.

Hosp. Asst. Ramkrishna Apaji, Murwara Branch Dispy., Jubbulpore dist., held charge of the Murwara Poor-house from 2nd Nov. 1897 to 15th March 1898.

Hosp. Asst. Ramkrishna Apaji, Murwara Branch Dispy., Jubbulpore dist., was deputed on plague duty, Katni Ry. Stn, from 1st Janv. to 30th March 1898.

Hosp. Asst. G Ramiah Naidu, doing plague duty under Inspg. Med. Officer at Itarsi, to Venkatapur Dispy., Chanda dist.

Hosp. Asst. Vithal Raghoba Landay to Banda Poor-house, from 5th Sept. to 10th Dec. 1897.

Hosp. Asst. Vithal Moreshwar to Rehli Poor-house, from 1st Dec. 1896 to 20th March 1897.

Hosp. Asst. Behari Lal to Bergi Poor-house, Jubbulpore dist., from 24th Aug. to 22nd Oct. 1897.

N. W. P. & OUDH GOVERNMENT.

Brig.-Surgn.-Lieut.-Col. W. A. May, A. M. S, officiated as Civil Surgn, Naini Tal, from 4th to 23rd April 1898.

Surgn.-Major E Hudson, Supdt. Central Prison, Benares furlough out of India for one year from 25th April 1898.

Surgn.-Capt. H. B. Melville, Civil Surgn., on return from mily. duty, to Etawah.

Surgn.-Capt J. Morwood, Civil Surgn., on return from mily. duty, to Hardoi.

Surgn.-Capt L. G. Fischer, Civil Surgn., on return from mily duty, to Basti.

Surgn.-Capt. J. M. Crawford, Civil Surgn, on return from mily. duty, to Muttra

Surgn.-Major G H Baker, Civil Surgn, on return from mily. duty, to Gorakhpur.

Asst. Surgn. Sri Ram, to Lalitpur Dispy, in Jhansi dist.

BURMAH GOVERNMENT.

Asst. Surgn. Maung Chit Tun, assumed charge duties of Civil Surgn., Thaton dist, 14th April 1898.

Hosp Asst. Ram Lal Chakr[illegible] Hosp., Bhamo.

Hosp. Asst. S. Abdul Majid assumed charge [illegible] Hosaitu, Upper Chindwin dist., 22nd March 1898.

Hosp. Asst. Mahomed Sherif is granted sick [illegible] of three months and four days' leave from 18th April 1898.

Hosp. Asst. Mahomed Sherif, assumed charge as [illegible] at the Genl. Hosp., Rangoon, 23rd April 1898.

Hosp. Asst. Lakhim Kanta Bose, assumed charge Police Hosp., Kamaing, Mogaung sub-div, 10th April 1898.

Hosp. Asst. Lakhim Kanta Bose assumed charge Civil Hosp., Kamaing, Mogaung sub-div. 10th April 1898.

Hosp. Asst. Maung Aung Pru assumed charge Police Hosp., Pakokku, 13th April 1898.

Hosp. Asst. Maung Aung Pru assumed charge Jail Hosp., Pakokku, 13th April 1898.

G. O. C. C.

The undermentioned Hosp. Assts. qualified themselves for promotion to the next higher grade and are entitled to the pay of the same :—

Bishenbar Nath Sukul, Pohlo Ram, Shakar Abdus Khan, Imdad Husain Khan, Ali Naki, Saiyid Turab Ali, Inayat Khan, Nizam-ud-din, Dhondi Nagoji Venray, Balkrishna Kashinath, Gopal Narayen and Shaik Mohideen.

ASSAM GOVERNMENT.

Hosp. Asst. Rajani Kanta Karmakar, a supy. Goalpara dist., to Darrang dist., Sipajhar Dispy., from 5th April 1898.

Sick leave for two months is granted to Hosp. Asst. Jamini Kumar Ghosal, Dispy. and Lock-up Barpetta, from 12th April 1898.

Hosp. Asst, Raj Mohan Ganguli, Sipajhar Dispy., Darrang dist., to Kamrup dist. Dispy, and Lock-up at Barpeta, from 12th April 1898.

Sick leave for six months is granted to Hosp. Asst. Kailas Chandra Das, Jalaguti Dispy. Mangang dist, from 1st Feby. 1898.

Babu Sarada Mohan Bhattacharyya is appointed for six months a Civil Hosp. Asst. in Assam and posted to Sibsagar for duty as supy. from the 29th April 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Re. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

MARRIAGES.

EVANS—HOWSE—On the 13th April, at the Church of All Hallows, Londodwall, E. C., by the Rector, the Rev. S. J. Stone, cousin of the bridegroom, Harold Ward Evans, M.R.C.S, L.R.C.P., of Littleport, Cambs., younger son of the late Francis Stone, Evans, Esq, M.A., late Principal of the Presidency College of Madras, to Hilda Mabel, fourth daughter of the late Alfred Howse, Esq, M.R.C.S

BARNES—DISSENT—On the 23rd April, at the Free Church of Scotland, Calcutta, by the Rev. David Reid, James Fits-Ernest Barnes, to Florence Hope Dissent, M.D.

WHITTENBURY—KNIGHT.—On the 2nd May, at the Fort Chapel, Bombay, Miss Margaret Marie Knight, to Mr. Joseph Henry Whittenbury, Assistant Surgeon, Mhow. (No cards.) (English papers, please copy.)

NOTICES TO CORRESPONDENTS.

A. B. E—Despatch a sample of the food to the Editor, *Indian Gardening*, Elliott Road, Calcutta, giving particulars for its preparation. Do the same to the Chemical Examiner to the Government of Bengal. Send another sample to the Director-General of Agriculture in India, Simla.

A. D. M.—Many thanks.

J. B.—The papers in connection with the Imperial Anglo-Indian Association will be published shortly and will be distributed broadcast over all India.

C. C. G.—Your case is a hard one. You ought to rejoin college and put in your full course.

A. L. M.—Special plague allowances have already been gazetted. Look up your back numbers of the *Record*.

M. S.—The papers you have sent prove that Military Hospital Assistants undergo a very fair training in medicine.

ORIGINAL ARTICLES.

CLIMATE AND MALARIA.

III.

BY SURGEON-MAJOR R. R. H. MOORE, M.D., A.M.S.
Jalapahar, Darjeeling.

IT is well known that forests have the power of conserving the moisture of a district, and that the soil under trees is always damper than the soil of open spaces.

This leads us to the consideration of another set of important phenomena.

When woods are cut down upon a large scale, the excess of moisture accumulated by their presence is released, the cause which preserved it in that particular spot is removed, what happens? What are the immediate and ultimate results?

The immediate result is that a large surface is suddenly laid bare, containing a larger amount of water than it can dispose of, and larger than a bare space of land under the same circumstances could contain: in other words, the deforested land is in the first instance *a swamp*.

In time of course this rights itself; the excess of moisture is removed, either by sub-soil drainage or evaporation, and the land gradually assumes the characters of neighbouring bare places, and becomes as dry as if it had never been covered by trees.

What more natural than that an outbreak of malaria should mark the period of deforesting, and that this should gradually subside and a healthy condition be restored?

This is the natural sequence of events, and this is the simple explanation of those numerous and extensive epidemics of malaria which have so often been reported in the United States, when trees were removed from the whole face of the country.

This however is a matter which has never received the attention it deserved, and which has never been carefully or scientifically investigated; so much so indeed that, as far as I am aware, this explanation, simple and obvious as it appears to be, has never previously been even suggested.

The idea is undoubtedly held by many that in malarious countries, woods are unhealthy. I believe this idea has entirely arisen from the fact of the general dampness of the soil, and of the general association of dampness with malaria.

TOMMASI-CRUDELI in this connection says:—"Woods covering malarious ground may favor the production of malaria by preventing evaporation and preserving moisture in the surface soil." He also says:—"If the layer of soil is thin the removal of the wood will help the sun to dry it."

This is of course all theory; for not a single instance is brought forward in support of the notion that when malaria prevails in a forest, the clearing of the trees will remove it.

It is a subject for regret that there is such a scarcity of reliable observations on this point from which to draw deductions, but the reader will have far to search before he finds a well authenticated case of a malarious and thickly wooded district being rendered healthy by the complete clearance of the trees.

All woods are damp, but all woods are not malarious, therefore something else must be looked for beyond the mere dampness to account for the malaria when it is present; again afforesting must induce dampness of soil, yet we have seen that in Italy it is highly lauded as a prophylactic against malaria.

There is, I think, sufficient evidence of the beneficent action of trees in malarious places, in sub-tropical and temperate climates to warrant my putting it forward as a general rule *that in such climates trees always antagonise malaria, while their removal has the contrary effect.* To assume that such a rule should be without exceptions, would be to assume that this rule must be an exception to all other rules.

Regarding exceptions. I may say that I think all cases of malarious woods should be carefully investigated; it by no means follows because a forest is malarious that the removal of the trees in toto will affect a cure. Many other things may have to be considered, and in the absence of exact data the subject is not an easy one to discuss.

Probably the most notorious of malarious forests is the Terai, but there is reason to believe that this region is not nearly so deadly as it is often made out to be.

I have it on the authority of two Darjeeling Civil Surgeons that in the cleared portions of the Darjeeling Terai, Europeans can live without contracting fever.

One of them, Dr. T. DUKA, writes:—"Those planters who have well built houses to live in, affording due protection particularly at night during sleep against these sudden changes of temperature, are known to keep their health in the Terai, even as well, as almost in any part of the plains of India."

This is another example of what I have several times drawn attention to, namely, the marked way in which malaria avoids a well built house. Dr. DUKA continues:—

"The shanties above mentioned are not only inadequate as domiciles, but they are positively dangerous to live in, considering the climate. The nights in the Terai are, as a rule, very draughty, and there is a great difference at some seasons between the temperature of the day and at night, which in the latter case is still further lowered by the sharp breezes which often sweep through the "shanties" in every direction from the sides and from the top, as well as from below."

To travellers camping there at night without sufficient protection the Terai is very deadly.

Another curious point about this district is mentioned also by Dr. DUKA. He says:—"In the sanitary report furnished by my predecessor for 1868, it is stated that Europeans living in malarious places (tea plantations at a low elevation are meant) never get fever except when visiting Darjeeling."

Dr. SEALE of Darjeeling, who has had an extensive personal experience, both of the Terai and of Darjeeling, bears witness to the truth of this statement, though not inclined to put it quite so strongly.

Cases like this are frequently put forward as proof of

an incubation stage, that they prove nothing of the kind appear to me too obvious to admit of discussion.

They only prove the paradox that people can contract malarial fever where it is generally admitted that there is no malaria.

Given the fact that Europeans can live with impunity in the cleared portions of the Terai when well housed, would we be justified in advocating the clearing of the whole of the district?

By no means, for the fact that people can live in health under such circumstances is no proof that the malaria has been banished, on the contrary we have unmistakable evidence that it is not banished, for those living in "Shanties" suffer in an extensive degree. What is the explanation of this apparent contradiction? It is only the question of exposure, which I have already dealt with in this journal for 16th March 1898.

It is difficult, if not impossible, to believe that a poison diffused in the atmosphere, and capable of being carried from place to place by the wind, or by any other agency, could make such distinctions

It is evident that malaria is not exterminated by these clearings, therefore there is no reason to believe that clearing the whole Terai would drive it away. In my opinion it would, on the other hand, make matters much worse.

The climate of the Terai presents important peculiarities whose full value must be carefully weighed. They are due to its situation, to the towering range of the Himalayas which springs from its northern boundary.

We read that "the nights in the Terai are very draughty," and subject to "sharp breezes," the cause of these cold currents of air is to be found in the situation, and they depend upon certain physical laws which have a large bearing on climate.

I have mentioned that the effect of nocturnal radiation is to cool and raise the specific gravity of the air in contact with the earth. What is the result?

To quote from the Encyclopedia Brittania :—"Valleys surrounded by hills and high grounds not only retain their own cold of radiation, but also serve as reservoirs for the cold, heavy air which passes down upon them from the neighbouring heights; along low-lying situations, in the valleys of the Tweed and other great rivers of Great Britain. Laurels, Araucarias and other trees and shrubs were destroyed during the great frost of Christmas 1860, when the same species growing on relatively higher ground escaped."

"Hence mist is often formed in low land, while slight eminences are clear."

Respecting a mountainous country, the experiments made in Switzerland are of special value. "In Switzerland it is observed in calm weather in winter, when the ground becomes colder than the air above it, that systems of descending currents of air set in over the whole face of the country. The direction and force of these descending currents follow the irregularities of the surface, and like currents of water they tend to converge and unite in the valleys and gorges, down which they flow like rivers in their beds; on such occasions the temperature of the tops of mountains and high ground is relatively high. In rising above the current of cold air in a valley the increase of temperature is readily felt."

In the Terai these conditions must, as a rule, be much accentuated; the great difference between the temperature of the Terai and of the lofty mountains increasing the force with which the cold air from the latter rushes down the ravines at night, "causing the icy blasts so often experienced at the mouths of ravines and gorges."

Trees break up, and shelter from these cold currents, to remove them under such circumstances would be to alter the climate in such a way that it would be much worse than before.

There appears to be absolutely no evidence to convict trees of playing any part in the dissemination of malaria.

Some people are greatly prejudiced against the presence of trees or shrubs in close proximity to dwellings. Dr. MEREDITH, who interested himself particularly in this subject, and who had extensive experience in British Guiana and in Assam, says as follows :—"I consider shrubberies, bushes, plants with the character of trees, but growing only from 2 or 3 feet to 10 or 12 feet in height, healthy, and in moderation desirable about dwellings." "One noteworthy instance of the advantage of a well-kept garden, I may" he says "mention, that of a merchant in George Town, (British Guiana). He had taken great pains to drain what in India could be called his compound, and having drained it, he laid the ground out with a profusion of shrubs and bushes of various sizes and descriptions, it was attended with marked improvement in the healthiness of the place." "Instead therefore," he concludes, "of taking it as an axiom that brushwood is almost always bad, I am decidedly of opinion, all other matters being regular, that the reverse is the case.

Significant as these remarks are, they conceal a fallacy due to the general looseness of language in which many writers on malaria rejoice "Brushwood" has been condemned as malarious time out of mind by an uninterrupted chorus of authors, but none of them have paused to tell us exactly what they meant by "brushwood"; the word, as it stands, has no definite meaning at all; in fact may mean a bundle of branches cut off from a tree. Why then has it been passed on and re-echoed from one to another, unless we are to conclude that the vagueness of language is the result of vagueness of ideas?

That Dr. MEREDITH should suppose the term is applicable to well-kept shrubs in a carefully laid out garden shows that some definition is necessary.

How then is the distinction to be drawn, to shew that all observers may be in the right, and not contradicting one another.

We frequently hear of healthy and unhealthy vegetation, but what meanings do the terms imply?

The nature of the vegetation depends or the most part (leaving climate considerations aside) on the nature of the soil, healthy vegetation will spring from a healthy soil and unhealthy from an unhealthy soil. A healthy soil is a well drained soil, and vice versa.

The vegetation of a swamp is unhealthy; the rank undergrowth of many forests is unhealthy; rank undergrowth, well marked in the Terai, is associated with

excessive dampness of the soil; and in this extreme degree of moisture which is the cause of the unhealthiness and the undergrowth, probably tends to check it more than anything else.

Wherever in sub-tropical climates there is a large amount of moisture there is certain to be a luxuriant vegetation. Luxuriant vegetation is an index to damp soil, and a damp soil is unhealthy.

The removal of "brushwood" has frequently, and especially in connection with the laying out of camps, been accused of producing malaria. Well it is hardly fair, when one gets malarial fever from lying on a damp soil, to put it down to the credit of the vegetation that was removed to make a space to lie down in; for in these cases two things are fairly evident, first that the ground occupied by such growth was damp, second that no one would have taken the trouble to remove it, had the ground not been wanted for the men to camp on

RAVINES.

In malarious countries ravines and punch-bowl valleys have long enjoyed an unenviable notoriety for being extremely malarious; in these places the air movements are identical with the movements already described as taking place in Switzerland and in the Terai. At the bottom of such valleys there is a broiling sun all day., succeeded at night fall by a downpour of cold air from above, and cold gusts of wind in the ravines.

I allude to this matter here in connection with the enormous extent to which our troops suffer from malarial fever when engaged in active service in the hills on our Indian frontier.

In the recent Tochi Expedition, I have it on the best authority that malarial fevers accounted for almost the whole of the enormous sickness, and actually disabled a whole regiment.

In the Chitral Relief Force in 1895, the admission rate for intermittent fever amongst European troops was 513·4, though this figure falls much below the average of several Indian stations, especially those in the Punjab, it has still to be taken into consideration that the troops in active service are all picked men.

An admission rate of 513·4 is very high for such a body of men from which all those debilitated or sickly have been removed.

It is not known that the natives of these hills, suffer extensively from malarial fevers, nor can it be maintained that the conditions usually associated with malaria prevail more in these hills than in the Presidencies of Madras and Bombay.

On the supposition then of a specific poison the explanation of this great amount of malarial fever amongst our troops is still wanting.

On the other hand, it is easily seen that the men must be greatly exposed to extreme vicissitudes of temperature from the causes above stated.

In these campaigns, our troops are of necessity almost invariably obliged to camp in the bottoms of ravines, in which the cold at night as well as the heat during the day are in excess of what they are at higher elevations, so mountainous hills, such situations are liable to be much damper than higher ground. As slightly confirmatory of the phenomenon of cold air flowing down from higher levels and settling in the beds of ravines, I may refer to the third of the series of thermometric observations I made at Darjeeling (see last number of this journal.)

The figures are as follows in twenty-seven observations, the mean minimum temperature at night was 31·1°F, at the bottom of a small ravine 300 feet below the summit of the hill. On an open place on the summit the mean minimum was 30·1°F, while in a small grove of trees it was as high as 34·3°F.

This shows that it was much colder at night in this ravine than it was in the trees on the summit, though the elevation was 300 feet less, while the open space on the summit was only 1°F colder on the average.

As the ravine ran east and west and was in shade most of the day, the maximum temperatures are of no value. The rule, however, is that places on the side of a hill below the summit have a greater diurnal range of temperature than the summit BLANDFORD says:—Even at one and the same station, houses on the crest of a ridge have a smaller diurnal range of temperature than those on the lateral slopes. Thus at Darjeeling the present observatory, which is on the crest of the ridge, shows a difference of night and day temperatures about 2°F less than the old observatory, which for many years existed lower down (500 feet), on the side of the same hill, and this notwithstanding that the new observatory is more exposed than the abandoned site."

That these cold currents flowing down from higher to lower elevations and collecting in valleys, low lying grounds and ravines have an injurious effect upon health, especially on the health of soldiers exhausted and over heated after a long day's march under a hot sun, cannot be doubted, and from the view of the sanitarian, they deserve much more attention than has ever yet been paid to them

It requires no great strain on our reasoning faculties to conclude that some connection exists between the phenomena I have just been discussing and the undisputed fact that the malarial poison reigns chiefly at night, and we may turn aside for a minute to consider the explanations that have been given to account for this peculiarity.

One set of authors maintained that the malarial poison was drawn up by the heat of the sun; that during the day it hovered about at some unknown elevation, and when night came it swooped down, as ARMAND humourously says, like a flock of wild fowl to seek the marsh.

The difficulties in the way of accepting this idea were so great—and I will not now waste time in discussing them—that it had to be given up.

There is, however, one point in it which is deserving of attention, the evaporating power of a tropical or sub-tropical sun is enormous, and under its influence a considerable weight of water is drawn up from the soil into the atmosphere; if the germ or poison is in the soil, how is it that it has the power to resist this immense force? On the other hand, if the poison were the result of putrifactive changes, is it not during the day, under the

action of a powerful sun, that it should be most in evidence?

Undoubtedly it would have been more convenient for these theorists if malaria had been most redoubtable while the sun was up, but this was too obviously not the case, so some other theory had to be found.

It was the custom in the Roman Campagna for farmsteads to be built in the form of a court yard, with all the doors and windows opening inwards, and with the exception of one door for entrance and exit, nothing but a bare wall on the outer face; now the man who let his imagination so outrun itself as to declare to the world that this form of construction was undertaken to keep out malaria, which of course could not get over the wall, rather than as a means of security to the inhabitants and their flocks was evidently predestined for this desperate attempt.

TOMMASI-CRUDELI accordingly not to belie his character, advanced the astounding doctrine that owing to the variations in temperature which occur at sunset, ascending currents are formed which carry the malarial germ out of the soil and disperse it in the lower strata of the atmosphere. Such was his theory, and this theory strange as it may seem, instead of being scouted, buffeted and kicked out of existence as it should have been almost before it had time to breathe, was listened to with respect in the civilised capitals of the world, and reproduced as a solution of the whole matter by one author after another.

But what these wonderful ascending currents of CRUDELI were no man has ever been able to discover

The fact is in this idea of CRUDELI'S the simplest physical laws are ignored or denied.

At sunset the earth cools quicker than the surrounding air; therefore the air in the interestices of the earth cools and contracts, and far from rising has a tendency to sink, while other air from the outside comes in to replace the loss by shrinkage. Further from the surface of the earth upwards, every succeeding strata is warmer and lighter than the one below it, and all are tending to grow cooler and therefore heavier, yet in spite of all these adverse circumstances, like love that laughs at the locksmith's art, CRUDELI'S germs that all day long were unmoved by the burning glances of APOLLO, start forth at nightfall on the airy wings of imagination, and dance like fairies on the sward.

Such are the theories that have been propounded to account for the nocturnal habits of malaria.

CULTIVATION.

There is one other point to be considered here; a great deal of emphasis is laid at the present time on the necessity for cultivation before land can be freed from malaria. I cannot however discover the exact idea that lurks in the brains of those who lay so much stress on this point.

The word cultivation is usually paired off with drainage —"drainage cultivation, etc." we read, have made lands healthy. There is some talisman in the word cultivation; it seems to be possessed of some occult powers, but what the powers attributed to it by the writers are I know not. KELSCH and KEINER say:—"Marshes that have been dried or filled up, and lands that have been drained only, become really healthy when the soil is subsequently exhausted by continuous cultivation. So essential is this, that it ought to be as much enforced by law upon owners of land, as the proper maintenance and care of salt marshes are upon the companies who work them."

According to this the proprietor of land is to be forced to exhaust it, a pleasant prospect truly, and one to which we can easily imagine he would not readily submit; but we are given to understand that if he does not exhaust it, it cannot be healthy, truly a pretty dilemma for the landed proprietor.

Further we are given no clue to the kind of cultivation, and it is somewhat of an embracing term; for instance, would rice cultivation be likely to be beneficial, or irrigated meadows? The state of the cultivation, in my opinion, may be simply taken as an index of the state of the soil, crops as a rule do not thrive in a marsh, and when we see a good crop of wheat or potatoes, we are justified in the conclusion that the soil is a dry one. Furthermore, good grass land is generally healthy, yet it cannot properly be called cultivated land.

Beyond this I cannot imagine what else authors, who held such general views as KELSCH and KEINER, can see in cultivation, marshy land is drained, by this process it is made available for cultivation, and is cultivated accordingly, and becomes healthy, but it is the drainage which rendered the land fit for cultivation which also made it healthy. Are there any instances of land well drained being left uncultivated with the result that they still continued malarious? On the other hand, however, land covered by vegetation does influence the local climate. The influence being of the same kind that is exercised by forests but less in degree according to the nature of the vegetation.

"The essential difference between the climates of two countries, the one covered with vegetation and the other not, lies in this: that the heat of the day is more equally distributed over the twenty four hours in the former case and therefore less intense during the warmest part of the day." Such is the climatic difference to which, of course, these authors would not attach the least importance, and it is brought about in this way: the vegetation forms a screen as it were between the earth and the sun, reducing the amount of heat the earth takes up by radiation on the one hand during the day, and gives off during the night, the cooling process during the day is further aided by evaporation of a certain amount of moisture from the leaves of plants.

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HOW DIABETIC PATIENTS DIE, AND HOW THEY OUGHT TO LIVE.*

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DANGERS unnumbered beset the path of the diabetic person, though death is rarely the direct result of diabetes. In so-called pancreate diabetes the patient sinks and dies in consequence of increasing marasmus and denutrition; but the glycosuria of patients with pancreatic

* Being a clinical lecture delivered at the Tenon Hospital, Paris, France, and specially reported for the *Indian Medical Record*.

lesions (fibroids, neoplasm or sclerosis) can hardly be viewed as diabetes, since patients affected with degeneration of the pancreas are hopelessly doomed to helpless decay within the space of a few months, and they are not inclined when insisting on precautions to be taken by diabetic persons to escape the intercurrent complications that curtail the lives of most all them.

The tissues of persons affected with general disorder of nutrition becoming incapable of burning up the sugar produced by the glycogenic function, inhibits the normal function of the nervous system regulating nutritive metabolism, and this may be the consequence either of a hereditary arthritic diathesis or of some primary lesion in the nervous centres themselves.

This arthritic diabetes polymorphic in its manifestations, is so insidious in its origin and variable in degree, that it escapes suspicion by practitioners who do not systematically analyze the urine of *all* their patients; yet it frequently permits its victims to live for a long time if they only follow medical advice and regulate their life habits: still it is our solemn and bounden duty to warn such patients that they are *always* on the verge of an abyss into whose depths they may be precipitated at any moment.

Dangerous nervous complications frequently environ diabetic patients and carry them off in coma or collapse, the starting point of which may be professional or cerebral strain, or some operative or traumatic shock.

One of my masters, a specialist in mental diseases, a prolific writer and a popular lecturer, like many other medical men, took absolutely no care of his own health and refused to have his urine analyzed for sugar, though he presented all the outer aspects of the diabetic taint, and he latterly complained of an unusual sense of fatigue. One evening he went to bed earlier than usual, but being unable to rise next morning, he sent for me, I found him expressionless and drowsy with marked paresis in all four limbs and a good deal of dyspnœa, without, however, any stethescopic sounds, but the coma progressed continuously and he died peacefully some 24 hours later. The urine passed during the night preceding the morning he sent for me, contained 400 grammes (*i.e.*,14 ounces) of sugar.

Shock may hasten the end. A patient I had had under observation for several years first came to me for advice about a fall he had had in the streets. I tested his urine and found glycosuria; but he professed most absolute unconcern for my warnings. He several times fell in the streets and getting off with a few insignificant scratches was able to walk home, resignedly; but one day he was picked up helpless, and taken first to the hospital and then to his own house, where my colleague, Dr. QUENU, saw him. There was neither fracture nor dislocation, and nothing beyond a few trifling scratches and contusions. Nor were there abdominal symptoms beyond *one* involuntary defæcation; but there was anuria with a low temperature (35.5° C.) and the patient seemed utterly indifferent and unconcerned as to possible consequences of his fall. Injections of artificial serum failed to restore diuresis, and 48 hours after the fall the patient died quietly. This was really a case not of diabetic coma, but of shock or of collapse.

In another case of collapse of a diabetic patient who had been hurt, the existence of glycosuria was ascertained a *few days before* the accident; but from that time to the time of his death no trace of sugar could be detected in his urine. The urine was not suppressed, the patient fell into a dozing condition accompanied by complete muscular resolution.

That *proper hygienic precautions* can *ensure fairly long life to the diabetic* was verified by an intelligent chemist of very high professional rank, who was 32 years old when he accidently discovered he was diabetic. He studied the disease closely, and shunning all nervous excitement so carefully regulated his emotions and his pleasures that, though he was still glycosuric, he enjoyed excellent health up to the age of 60, when grief tipped the beam of the balance and the arterio-sclerosis, hitherto quiescent, began to reveal itself in (1) dyspnœa, (2) albuminuria which slowly became serious, (3) œdema about the malleoli, and (4) then infiltration. The sugar and albumen resisted all curative attempts, but he might have dragged on for a while longer only for a trifling surgical interference with an otitis which developed as a complication of his influenzal attack and refused to yield to medicines. Within a few hours after the operation by one of the most qualified specialists the patient fell into a comatose state from which it was impossible to rouse him and he died. I do not wish to infer that no surgical operation should be performed on a diabetic, as cataracts have been successfully removed, gangrened limbs amputated, furuncles and abscesses incised, &c. in such cases, but I do maintain that indispensable operations alone are to be risked as the issue is always uncertain.

The *weak points* in diabetic individuals are the liver, kidneys and blood vessels

Some pathologists consider the liver as the pivot of the morbid process, and in the majority of diabetics it is enlarged from nervous hyperæmia or hypertrophy from increased cellular activity, more especially in polyphagic persons, and particularly so if alcohol is largely indulged in: cirrhosis of the liver is one of the epiphenomena of diabetes.

Overworked by incessant elimination of sugar and of the toxins produced by imperfect nitrogenous destruction the epithelial cells become the seat of hyaline degeneration, glycogenic infiltration, and necrotic lesions frequently leading to albuminuria in diabetes and ending in uræmia.

The various changes in the circulatory apparatus for the most part take place around the arteritis putting the tissues in a state of hypo-nutrition and rendering them favorable culture media for every variety of micro-organism, which easily set up grave complications. Gangrene from ischæmia is always one of the most serious complications threatening diabetes. Angina pectoris occasionally occurs and endo—and peri-carditis sometimes cause death.

Danger of tuberculous infection in densely populated areas particularly threatens the diabetic whom it invades insidiously, and then in the majority of cases breaks out and evolves *with great rapidity*. When the tuberculosis fully developes, the sugar often disappears from the urine by the pyrexia activating the various oxida-

tions. Thus last year I had to deal with a polydipsic, polyphagic and polyuric commercial traveller who weighed 106 kilogrammes (233·69 lbs.) though he had distinct arthritic heredity, and for the past 15 years passed 40 grammes of sugar per litre of urine (*i. e.*, nearly 16 grains to the ounce) while he was in the habit of taking 20 glasses of alcohol daily. Suddenly his appetite vanished, he lost virility, his vision became blurred, and his legs weak, while his obesity decreased by 40 kilos (*i.e.*, 88·16 lbs.), in one month. Then the signs of consumption positively showed themselves, the polyuria and glycosuria vanished, and in less than five months he was dead.

Rapid evolution is the rule, still a tuberculous diabetic may live for many years. I knew a general officer who died at a comparatively advanced age, though his tuberculosis and diabetes began when he was a sub-lieutenant and in the last months of his life traces only of sugar were found in his urine.

The *pneumococcus is a source of danger*, and the pneumonia may evolve in a remarkably insiduous way and run through its deadly course at most without fever. One of my patients, who was slightly diabetic, was very rapidly carried off by pneumonia, though he hardly coughed at all, and seemed unconscious of excessive dyspnœa.

The streptococcus and staphylococcus carry off many diabetics by inducing suppuration in regions favorable to furuncles and abscesses. One of my lady patients, who had an extremely mild attack of facial erysipelas which led to suppuration of the parotid gland, died of profound asthenia after the abscess was drained; but in another woman, who was passing 185 grammes (nearly 6·6 ounces) of sugar every 24 hours and had suffered from furuncles in various parts of her body, the suppuration was less unfavorably located in the lumbar region. After keeping her on anti-diabetic treatment for a few days, the anthracoid mass and its numerous diverticula were freely laid open and emptied and moist antiseptic dressings applied. She mended rapidly and 42 days after the operation the wound was completely healed and the sugar went down to 20 grammes (30·9 grains) a day.

Excess in drugs and alcoholic drinks are two common iniquities that ought to be carefully guarded against. Most patients get frightened as soon as their diabetes is revealed to them and eagerly enquire right and left as to the best remedies. They exhaust the list of specialities recommended by their friends or advertised in their daily or other 'papers' to despairingly find their improvement, if any, is only temporary and gradually growing tired of everything finally refuse even to observe diet which is their sheet anchor. Then under the mistaken idea that they require, general 'tonics,' too many diabetic patients drink wine, ales and alcohols freely, or they go in largely for 'medicated wines' which are senselessly advertised as being *able* (??) to arrest wasting or to increase strength; but which do more harm than good even though their formulæ are legion and some of them actually bear the signature of professional men or are 'backed' by some of the medical journals.

Individual study of each case is requisite as the result of treatment depends upon a goodly number of influences quite distinct from the nature of the diabetes itself, and his employment and habits and the way of thinking of those habitually in contact with him very often *are* so many obstacles to the success of the rules of living, that he *must* observe closely if he wishes to get well, or at least to live along with his diabetes without losing ground.

The best regimen for the diabetic is:—(1) Early to bed and early to rise at a regular hour. (2) Friction all over with a horse-hair glove every morning before dressing. (3) Before going to bed rub himself with a woolen glove impregnated with some aromatic tincture. (4) According to the season of the year practice hydrotherapy, as keeping the skin clean not only prevents skin affections and microbial invasions, but also insures the proper working of the glands and the activity of the circulation, as well as exerts a favorable influence on nutritive changes through the influence of peripheral expansion of the nervous system. (5) Physical exercise, which must be so regulated that it *just* suffices to activate the respiratory movements and increase oxidation and no more, as when it passes into fatigue exercise becomes injurious in a variety of ways. It is most convenient to advise 'merely walking,' but the exercise may take the form of riding, shooting, cycling, housework, gardening and a variety of open air games, according to the age and condition of the patient and his apparent power of resistance, but the patient *must* beware of the temptation to overdo it and of consequent cold. (6). After each meal the mouth and teeth *must* be cleaned with antiseptic gargles and tooth powders. (7) Carefully regulated diet. (8) Minute toilet care of the genitals (9) No wound, be it even a tiny scratch, ought ever to be treated lightly. And (10) all accidental catarrhs of the respiratory passages must be got rid of as speedily as possible.

The question of diet has always been a vexed question, the answers to which are multiple and often apparently contradictory; but if the patient has not reached the stage of consumption and there is nothing in his urine to justify any fear of auto-intoxication or of coma, put him for ten days on CANTANI'S saccharo-adipose test-diet, which exclusively consists of meat, fish, eggs and fat, with only water to drink and sometimes a little wine or coffee, *minus* sugar. If this severe diet does away with the glycosuria, the progress of the diabetes may be checked without the medicinal intervention that is necessary in more severe cases; but as it leads to satiety and disgust from too much uniformity or to dyspepsia from exclusive ingestion of quaternary food stuffs, the CANTANI diet must not be continued too long and must give way to a more varied diet with the smallest possible quantity of sugar-producing substances. Therefore allow:—

Soups made from meat-broth, yolk of eggs and vegetables.

Meat, the quantity of which should range from 400 to 500 grammes (*i.e.*, 14 to 17 oz.) daily, may consist of beef veal, mutton, poultry, game, sweet-bread, grains, smoked meat, ham, pork (not often), and should include from 100 to 200 grammes (3·5 to 702) of fat daily.

Fish of every description, whether fresh, salt-water or shell-fish and mollusks (but *not* oysters) and whether fresh or preserved in oils may be recommended.

Vegetables—Asparagus is looked upon with suspicion and sweet potatoes especially interdicted, while cabbage may sometimes be indulged in, but artichokes, Brussels sprouts, cauliflowers, French beans, salsify, sorrel, sourkrout, and spinach may be freely eaten, provided they have been well boiled in water and properly drained before use or being made up with cream, meat juice or yolk of egg. All the herbaceous greens, such as corn-salad, dandelion, endive, lettuce, &c., are allowable and may be eaten cooked or raw.

Dessert may include almonds, filberts, olives, pistachio nuts, walnuts and every variety of cheese.

Opinions are divided as to the use of *fruit*, the *less saccharine* varieties of which may be tolerated in the slighter cases of diabetes; but cherries, dates, figs, grapes and melons must be forbidden.

The matter of bread has been a theme for considerable discussion, but most modern authors agree that ordinary baker's bread is harmful as it usually contain 60 per cent. of sugar, while gluten bread with its 20 per cent starch and from 27 to 31 per cent. sugar is unpleasant to taste and hard to chew, insalivate and digest. PAVY and SEEGEN'S almond bread is expensive and, like PROUT'S bean bread, heavy to digest, while Echaudte and soja hispida bread contain 40 to 50 per cent. of carbo-hydrates. EBSTEIN'S aleuronat, which contains 50 to 60 per cent of albuminoid substances and a little starch, is pretty extensively used in Germany but hardly as yet in France, where we allow 100 to 150 grms. (3·5 to 5 2 oz) of boiled potatoes, or 150 grammes (5 2 oz) of boiled potates and 25 grammes (0 88 oz) of bread-crumb as prescribed by ROBIN; but DREYFUS-BRISSAL, DUJARDIN-BEAUMETZ and LECORCHE advise 40 to 80 grammes (1·4 to 2·8 oz.) of the crust only.

"*Drink to your thirst*" is rightly advised to the diabetic patient, who must ingest a certain amount of liquid to drain out the excess of sugar contained in his blood, but that liquid should be water or unsweetened aqueous infusions of quassia bark, chiretta, or small centaury. Alcohol, ales, beers, cider and sweet wines should be especially forbidden. If he will insist on taking wine, let him use the drier and unsweetened varieties, and even this with extreme caution and moderation, because of the propensity of the liver to cirrhosis.

Milk, when it does not increase the glycosuria (check maintained by regular analysis of the urine) proves of great service to the diabetic patient suffering from cirrhosis, renal lesions, or cardiac complications with disturbed compensation. Besides which milk is an article of food that often renders the "special diet" more readily borne.

I believe the medicinal treatment of diabetes to be of secondary importance only, and I agree with TROUSSEAU that with sound hygienic and diabetic measures, aided by a *few* drugs discreetly and prudently handled, we may hope to cure a few and relieve a great many diabetic patients.

WHAT OPERATION CAN DO FOR CANCER OF THE TONGUE.*

BY HENRY T. BUTLIN, F.R.C.S., D.C.L.

Surgeon to St. Bartholomew's Hospital, London.

WITH the object of ascertaining (1) the necessity or not of removal of the entire tongue in every case of cancer, and (2) what proportion of the patients die from affection of the neck without recurrence in the mouth, I began last October (1897) to put together all my cases and to search out the further history of the 102 patients I had operated on until 1896. Of these 53 were hospital and 49 private patients.

I have had the good fortune to trace all but 7 of these patients, and knowing that the mortality due to the operation itself was singularly small among my private patients, I thought there would be some difference in the results of the operations in the two groups; but I was quite unprepared for the much more satisfactory results, so far as the cure of the disease is concerned, in the private patients. Thus:—

	Hospital cases.	Private cases.
Died of Operation	9	1
Recurrence in situ	8	10
Affection of glands without recurrence ...	16	12
Died later of other cause than cancer ...	4	4
Well within 3 years after operation ...	2	9
Well more than 3 years after operation ...	7	13
Lost sight of	7	...
Total ...	53	49
Grand total of cases ...		120

Why are the results of private practice so much better than those of hospital practice? Because the cases are earlier operated on People in good or moderate circumstances being better educated in the possibility of cancer of the tongue and being more apprehensive of danger, will not put up with the fungating offensive masses of cancer so frequently seen in the mouths of hospital patients, and many of which render large operations necessary, while the straitened circumstances of the victim make it impossible for him to be properly nourished before the operation: so that the chance of recovery from a severe operation is much smaller for the hospital than for the private patient, who also has the additional advantages of special individual attention, good nursing and plenty of nourishment and medical comforts, all of which cannot conveniently be obtained in the open wards of an hospital.

In the majority of the cases that were cured, the cancer was in the anterior two-thirds of the tongue; while, as was expected, those were particularly fatal where the disease was far back in the dorsum or along the border in the neighbourhood of the anterior half arches of the fauces, but there is evidence to show that even some of these cases may be treated with success provided the cancer has not invaded the tonsillar and neighbouring regions.

Had the private patients who were cured without the glands being removed from any one of them at the time

*Being a lecture delivered before the Hunterian Society on 23rd February 1898, and specially reported for the *Indian Medical Record*.

of or after the operation of the tongue, formed the sole material for study, it might be concluded that affection of the *lymphatic glands* renders the prospects of a cure hopeless; but the 7 hospital cases that were cured tell a different tale as in 4 out of 5 of these, who had their glands removed at or after the operation on the tongue, *the glands were not only* enlarged, but also decidedly cancerous.

II.—*The question of the necessity for the removal of the entire tongue* is one of considerable importance, and though some surgeons decline to operate for the removal of half or a portion only of the tongue, I am not in the habit of removing the entire tongue as a routine operation in every case of cancer, as it is not only a serious mutilation which creates a difficulty in taking solid food, lets mucus and saliva collect in his oral cavity and, if his occupation depends on speech, deprives the victim of his livelihood, but the operation also is much more dangerous than the removal of the fore part or of one-half of the tongue, and the plea that "a very considerable proportion of the persons who suffer from recurrence in the mouth would have been preserved from that recurrence had the entire tongue been removed as a routine operation" is scarcely justified by the results obtained. In the foregoing groups of 102 cases, the entire tongue was removed in 16 persons, of whom 4 died of the operation, very shortly after which 2 more died, 5 suffered from recurrence *in situ*, 1 had his glands affected without recurrence, 3 were lost sight of, and *one* only was really cured. Then local recurrence was observed in 18 only out of 66* of my patients in whom it might have taken place. In 5 of these 18 cases the entire tongue had been removed, while in 7 other cases the recurrence took place in the anterior half-arch of the palate or in the floor of the mouth or in some part which would not have been more freely dealt with even had the entire tongue been removed. In 1 patient too small a portion of the tongue was, inadvertently, removed, and while I might have done wisely in removing the entire tongue in 2 patients, I think a *little* more than was done would certainly have sufficed for the remaining 3 cases

Of course when there is no help for it, I do sometimes excise the entire tongue, but as there is ample proof that removal of a portion of the tongue suffices to cure a considerable percentage of patients and to save a much larger percentage from recurrence of the disease in the mouth, I always aim at removing the cancer with three-fourths of an inch of apparently healthy tissues around it in every direction. When the disease is on the border of the tongue I remove half the tongue to an inch behind the margin of the cancer; but when it is near the tip or forepart of the dorsum, the forepart of the tongue is removed and the results obtained lead me to take so much more hopeful a view of the operative treatment of the disease than I did 10 or 11 years ago, that it seems fair to say that the prognosis of cancer of the tongue, whether it is situated in the substance or in the border of the anterior two-thirds of the tongue, is not by

* Made up thus:—18 patients who actually suffered from recurrence *in situ*, 20 who died of affection of the glands without recurrence in the mouth and 30 who remained well more than three years after the operation.

any means bad, when [illegible] of cancer of most other parts [illegible]

III. *What can be done* [illegible] *Lymphatic glands.* Every surgeon who deals with Carcinoma linguæ knows that [illegible] liable to become cancerous [illegible] of the disease and my tables show how frequently [illegible] treatment of cancer of the tongue has been spoiled by secondary affection of the glands, which had appeared normal at the time of the operation.

Unhappily we cannot forstall how soon the removal of the cancer of the tongue will be followed by secondary affection of the glands of the neck, and we have yet no means of discovering which cases of cancer of the tongue are likely to be associated with secondary cancer of the glands, unless there is enlargement of the glands at the time of operation on the tongue.

Looked at in its proper light, cancer of the tongue (Squamous-celled carcinoma) is a malignant *local* disease so limited to the tongue and the neighbouring lymphatic glands of the neck that the prospect of dissemination of the disease may be dismissed, since operation can deal so successfully with 70 per cent. of these cases that there is little fear of recurrence *in situ*, but of these 70 from 30 to 40 will probably die of affection of the glands of the neck against which there seems to be no 'rule of thumb' means of protection; because every case of cancer of the tongue has the glands of the neck already inoculated with cancer, and if the inoculation is successful, glandular disease will, as a rule, show itself within 8 months of the operation on the tongue.

Two alternatives suggest themselves. (1) the immediate and (2) the expectant; but both are fraught with singular difficulty and danger and considerable doubts We might adopt (1) the first alternative by removing the lymphatic glands (whether obviously diseased or not) at the time of the operation on the tongue, but for the uncertainty on the all-important point of the group of glands which is likely to be affected in any individual case of cancer of the tongue. Sometimes the affected glands are half way down the neck, on a level with the thyroid cartilage, at other times behind the angle or the symphysis of the lower jaw, while at others again they may be in the floor of the mouth. so that no sufficiently regular rule seems to be observed to justify the extirpation of a particular group of glands in each case of cancer of the tongue, and the knowledge of these facts has deterred other surgeons, besides myself, from a routine removal of the glands in cases of carcinoma linguæ.

The expectant method (2) is to remove the glands as soon as the slightest enlargement of them is apparent; but here we often meet with grave disappointment; as by the time the glandular enlargement becomes apparent to the patient or his medical attendant the affected glands are usually so fixed or so numerous, or both, that it is useless, and often dangerous, to attempt to remove them. The difficulty also of discovering the glands, through the structures that cover them, sufficiently easily to

[illegible] [illegible] which had not been felt, although they had been closely searched for when the patient was under an anaesthetic.

IV. In spite of this necessity I have become so convinced of the necessity of a routine operation for removal of the glands, if operative treatment of cancer of the tongue is to be more successful that I have carefully studied the subject during the last two years. The lymphatics of the tongue are so disposed that they may pass through one or more of four groups of glands: (1) the sub-mental group lying under the floor of the mouth behind the lower law; (2) the submaxillary, some of which actually lie in the substance of the salivary gland; (3) the parotid and (4) the carotid which lie over the course of the carotid and particularly over the bifurcation of the common carotid.

So far as the majority of cancers of the tongue are concerned—especially those that can be removed and are unlikely to recur in the mouth—it may be foretold that they will inoculate one or more of the three *anterior* groups of glands—the submaxillary and carotid groups particularly—and their removal ought to preserve the patient from glandular affection. With this in mind I have, during the last 18 or 24 months, removed all the contents of the great anterior triangle of the neck, including the submaxillary salivary gland. To do this, I make one seven-inch incision on the anterior border of the sternomastoid muscle from the mastoid process to below the thyroid cartilage and a second incision from the symphysis of the lower jaw to meet the first incision at about the upper level of the thyroid cartilage. Raising the two triangular flaps thus mapped out, I carry the dissection from the apex of the triangle below, upwards to expose a considerable portion of the large vessels which I clamp and then cut through, and the submaxillary salivary gland is removed. The connective tissue and glands are all carefully dissected out from the triangle and taken out in one continuous mass The muscles in front are searched for one or two deeper-seated lymphatic glands, which are removed with the glands in front of the parotid gland, those about the angle of the jaw, and the other contents of the triangle The submental and parotid glands are not so easily and certainly removed *en masse* in this operation as are the submaxillary and carotid groups, which are readily removable. This dissection occupies from 60 to 75 minutes, but the wound heals so rapidly that the patient can go out of doors eight or ten days after the operation The disease of the tongue should be first removed, and when the patient has had five or four weeks to recover from that operation and can take food well, the removal of the contents of the anterior triangle may be undertaken without fear.

The time has not yet arrived to speak definitely, but in the course of the next two or three years I hope to be able to judge of the results of this preventive method which I shall then publish. A more detailed account of the modes of performance of together with a note of the patients on whom it has been performed and of the features, good or

[illegible] their patients to take a more [illegible] view of the operative treatment of cancer of the tongue, particularly when the disease is situated in the anterior [illegible] of the tongue, and above all when the operation is performed at an early period of the disease.

WHO ARE FRAUDS?

A FEW NOTES ON THE C. D. REGULATIONS.

By Wm. Huntly, M.A., B.Sc., M.D.

Nusserabad.

As another man styling himself "A Medical Man" joins in with a "Hater of Frauds," it may be well to set before your readers a few fresh notes on this subject.

"A Medical Man" begins badly. He says 79 medical ladies; the number noted in the *British Medical Journal* for 26th February 1898 is 73 It would hardly be worth while noting this, only that loose manipulation of figures is and has been characteristic of his party.

Then he writes, "some 8,000 cases of venereal disease are imported from India to England every year, and later on adds in opposition to the contention of the medical women that "soldiers" "are treated far more carefully than the same class in civil life; they spend long periods in hospital at the expense and to the loss of the State"

The natural inference from the above two statements is that in spite of professed long and careful treatment, 8,000 soldiers go home yearly, taking with them uncured venereal disease. I place no faith on the figures 8,000, but our medical friend will see that he is adding a fresh proof of the contention of these same medical women that it is nigh impossible to say when one is quite free from venereal, and, moreover, it has been shown over and over again by independent medical men and was demonstrated by myself some years ago in a paper in the *Record* written in opposition to the late Sir William Moore, that it is fatally true concerning venereal in women If venereal can be thoroughly well treated in military hospitals, then it is a lasting stigma on army medical men that 8,000 are sent thus home. What more evidence does "Medical Man" want? Whoever said that we should not try to check venereal disease? What the opponents of the C D Acts aver is this, that we should no longer go on perpetrating a fraud, and a failure, and a thorough-going immoral practice.

"Medical Man" finds himself sadly put to it when he tries to criticise the statement that " it lies to a large extent within the power of the individual to avoid infection. With other contagious diseases there is not the same power of voluntary escape." The individual here alluded to is the "*soldier*," and the statement for him is *absolutely true*. "Medical Man" tries to throw dust in people's eyes, by alluding to women contracting it in the marriage-relationship.

The man who stands up expecting to receive a pure woman and one free from venereal and who himself consciously conceals the fact that he has the disease is committing a big crime—and he knows it in his conscience. He expects cleanness while he knows he has only unclean-

nion to give in return. The party who consciously having this disease enters into the marriage relationship with one who has it not and who knows not that the man is diseased, is a criminal in God's sight. *The means of preventing* this can never come from C. D. Acts, and that our "Medical Man" knowing, yet throws it before our readers as if C. D. Regulations would do away with this. It can only come by infusion of more honor and moral stamina in men, and for imparting that, I don't think even "Medical Man" would advise a course of the C. D. Acts.

Can venereal diseases be treated in the same way as other infectious diseases and treated successfully? Are the present Cantonment Rules framed to do so? Is it not true that when the authorities in India had far more power than they have now in this matter, *or will have again in the future, please God*, the Acts as confessed by themselves were a failure—a big medical failure, in spite of the quotation of two feeble French sentences by "Medical Man." "Medical Man" should study the yearly rise in venereal as shown by army figures, submitted by army men when regulations were in vogue.

Concerning venereal and other infectious diseases the following paragraphs may help "Medical Man" to see things in their right relations:—

"We quote the weighty words of Lord LISTER, who, speaking in the House of Lords, on 17th, May 1897, said: 'Such a disease [small-pox] and others enumerated carry upon their face the evidence of their existence by symptoms that any medical man can at once discern. But with venereal disease the case is totally different. In the early stages of the complaint, in which it is of the most essential consequence that it should be recognised—for efficient treatment depends upon early recognition—there is no general effect produced upon the system whatsoever. The person appears to all ordinary examination perfectly healthy, and it is only by special examination, which it is enacted shall not be compulsory, that evidence of the disease shall be obtained. How can any notice be given to the medical man that a person has such a disease? Who is to give the notice? I do not understand it. In truth it is the fact of prostitution, not evidence of the presence of venereal disease, on which the authorities must proceed."—*Times*, 18th, May 1897.

"We should also refer to the memorial addressed to Lord GEORGE HAMILTON by the British Committee on 15th, April 1897, in relation to his despatch to the Indian Government.

"'With regard to the placing of venereal diseases on the same footing as other contagious disorders in the manner proposed in your despatch, we respectfully submit that this is, in the nature of the case, impossible. In this relation we would direct your attention to the following considerations:—(1.) It casts no stigma on the name or character of a person to assert that he, or she, is affected with 'cholera, small-pox, diphtheria or typhoid fever,' and it can be ascertained whether such statement is true without shock to the feelings of the most refined. The opposite is the case with venereal disease, in regard to which a mis-statement is a virtual libel, and a compulsory examination is an indecent outrage. (2.) As regards the former classes of disease, no conceivable measures can have any moral bearing; whereas in the latter class compulsory (and in some of its relations, even voluntary) submission to examination or treatment has the gravest moral consequences, both to the individual and the community. (3.) The procedure under the Rules you propose is as follows:—The Medical Officer is informed by a soldier that a certain woman is diseased. Believing that, he orders her for examination at the hospital. She may be perfectly honorable or perfectly healthy. In either case, if she refuses to attend, she is held to be diseased and is expelled from the cantonment. We submit that the whole of this procedure, though it may be in words the same as in a case of cholera, is in fact utterly different in the means by which information is secured, in the nature of the evidence as to fact, and in the consequences to the woman who disputes the fact. The operation of the Rules, so far as venereal disease is concerned, is not general. In the Report of the Special Indian Commission, appointed in 1893 by the Government of India to enquire into the working of the regulations, it is stated that, so far as venereal disease is concerned, the operation of the Rules is 'practically confined by sheer force of circumstances to women who are frequented by British soldiers. Even with regard to them information is difficult to obtain, for a man often does not know, and still oftener will not tell, which woman has diseased him.' And the same Report further says: 'Except in the not infrequent cases where a woman herself applies for medical aid, this (*i.e.*, information necessary to proceed upon) can only be obtained from men who have been diseased by them.' It is clear then that a man, as the result of an admittedly immoral act, becomes an informer, and in many cases a false informer, upon whose testimony the State has to rely for submitting the woman to the most degrading process. We submit that there is no parallel between venereal disease and cholera, either in the procedure here indicated, or in the effect of that procedure on moral conduct, or in the position in which it places the State.'"

"It will be seen that the above quotation refers to the procedure under the Cantonments Act in India. But it will be observed that the same sort of difficulty must arise under the proposed scheme. For instance, take the clause in that scheme, 'Health authority to have the power to communicate with the patient. . . .' We ask who is the patient? It is clearly here a person suffering from venereal disease who refuses to report the fact. How is the fact of his or her suffering from it to be ascertained? It can only be by the information supplied by the person who has been infected, or by the assumption that prostitution is itself an adequate evidence of disease. In the former case we have the evils described in the above quotation, in the latter case we have practically the re-establishment of the Contagious Diseases Acts in the periodical examination of prostitutes, whether diseased or not, in the determination of whether a woman is a prostitute or not, and in the segregation of a class of women subject to compulsory examination.

"The inclusion of men in such a scheme does not get rid of or in any way mitigate any of the above objections.

"Nor, indeed, is the inclusion of men practically possible. Lord LISTER, in his speech in the House of Lords above

quoted, said: "Dealing with the cases in the civil population on the same lines is an absolute impossibility."

It is with little hope however of convincing "Medical Man" and a "Hater of Frauds" that these notes are penned.

It is true that with a free hand for many years Regulation failed to stem disease and on the contrary promoted vice.

It is true that army medical men in India concealed the fact that from '89 to '92 in spite of a Resolution against these Regulations, they were carried out.

It is true that on the increase during these years when the rules were in force they tried to bring in a case against those who were opposed to Regulations.

It is true that they climbed down, beginning with Lord ROBERTS,—only when exposure of their ways compelled them to. What fine courage the A. M. S. has shown all along? It is true that the examination of women as the examination of only one of the units necessary to acquiring this disease is a fraud.

It is true that the examination of both parties sanitarily is a thing impossible to be carried out, and that any such attempt would defeat its own end.

It is true that in those countries such as Russia, where Regulation has been even more thoroughly carried out than by England, venereal literally floods the country. Do not medical men go to Regulation countries to study venereal diseases? It will be seen to be true that only moral means aiming to bringing men out of this filth will ever help to stop venereal.

It is true that Regulations encourage immoral tendencies and lead young soldiers into sin by fraudulent misrepresentations.

It is true that those who have from time to time framed these regulations have done practically nothing to raise the moral tone of the army.

But why go on. "Medical Man" says it is an unwelcome sign of the times that these women should have thus come forward. He again here utters truth. It must be an unwelcome sight to those who making a pretence of adopting moral measures and professing themselves zealous to raise the moral tone of the army are steering straight for the introduction of immoral regulations, a cowardly and immoral course. The devil airing his theories as righteous and good. The rake holding his head up and saying, "I am the man whom the Government delights to honor." Small wonder that in answering one of the questions submitted to soldiers for answer in the *Indian Medical Record* of 1st February, a soldier wrote.—"The libertine is preferred." Was KIPLING thinking of an A. M. S. man, when he drawe "TOMLINSON"? "Medical Man" also writes of the "unscrupulous manner" in which light on the subject of prostitution is disseminated "amongst women of all classes and even amongst unmarried girls." One wonders what type of a man "Medical Man" is, who thinks it bad for the women of England to know what is going on in India and to know of the results of immoral intercourse. Has he any daughters himself? Because women and girls and Rectors have their eyes opened to the unscrupulous conduct of unscrupulous men, this medical [illegible] is indeed an evil day for men with such [illegible] as evidently owns, and the more evil such men think it, the greater will be our cause of rejoicing.

No sir, the importance of the memorial does not arise from the fact that behind it is arrayed what Mr. RHODES would call the unctuous self-righteousness of England, but because behind it is the great God himself. We think the unctuous righteousness is on the other side, or shall we call their plans, unctuous immorality? Pray who are those that "could guage this memorial at its proper value,"—not Parliament or the Secretary of State? I suppose "Medical Man" and "Hater of Frauds" and the Indian authorities who have as concerning the Regulations been acting a dishonest and fraudulent part all along, would be the right party. We should like these men to have shown a cleaner and honester record in the past. We don't need a French phrase to settle the question. The question has been settled long ago by the very figures and the Commission appointed to examine those figures. Failure and deceit are writ large in this matter. Or are we to send memorials to such as are represented by Colonel WYNEN who acts as spokesman for all scoundrels and rakes when he says, "sexual *vice* never has and never will be considered disgraceful in men—at least, by the great majority of men, and I may add of women also." It says very little indeed for the type of women in Colonel WYNEN'S social circle, if this be his experience. The sex question is a root one. And if such a statement be at the root of the boasted civilization we are supposed to be giving to other races, it is a pitiable, immoral, fraudulent thing, filled with rottenness.

It is not venereal disease which will ruin our nation, but the vice which is propagated and the sea of impurity which is set free by the vicious and immoral tenents of such as "Medical Men," WYNEN, DASHWOOD, and others of the impurity party A vicious nation can never be a strong one, for God must ever be opposed to vice.

COLD IN THE ÆTIOLOGY OF DISEASES.

CHELMONSKI, in the 'Deutsches Archiv, fur klinische Medicine, 1897, p. 140, reaches the following conclusions:—

1. Taking cold, in the ordinary acceptation of the term, does not exist. 2. The ætiological *role* of cold is very subordinate; in inflammatory affections it does not figure, except as a predisposing cause. 3. Chilling is dependent upon the action of thermic agents that are ordinarily difficult to avoid. 4. The mode of reaction of the skin against the thermic excitation produced indicates whether the individual may, in certain conditions, contract a cold. 5. The degree of tendency to colds is not a constant property of the individual. 6. Old persons, those attacked with intermittent fever, and individuals suffering from renal affections seem to be more subject to taking cold. 7. There does not exist any relation between the tendancy to colds on the one hand, and the condition of nutrition and the thermic sensibility on the other. 8. Individuals may be protected from diseases caused by cold by developing, with appropriate means, the power of reaction against the thermic influences.—*Clin. Jour.*

A MIRROR OF PRACTICE.

UNINTELLIGENT *VERSUS* INTELLIGENT MIDWIFERY NOTES OF A CASE.

By Edith A. Howell, M.D.
Sindh.

Native Dhais have obtained for themselves such a bad name for prejudice against enlightened obstetrical surgery, at least until too late for it to have a chance of success, that it gives me real pleasure to be able to tell a different tale.

On a recent Sunday morning, I was requested by a native servant to come and see a woman of his family who had been two days in labor. He led me to a very neat and clean little servant's godown in a sahib's compound—highly decorated, indeed, I may say—where the patient was lying on a decent bed, with two women in attendance, *viz.*, her sister and an intelligent little *dhai* from whom I learnt that the patient had had pains for eight days, and for two days severe with no rest at night, and that sometimes a hand, sometimes a hand and foot, sometimes two feet, were presenting. The pains were irregular, and by no means strong; and examination shewed me the membranes intact, the os soft and distensible but not fully dilated, and both feet presenting, the head being plainly to be felt in the right flank, and the heartsounds faintly audible in the immediate neighbourhood of the umbilicus and the fœtus evidently a very small one. It transpired that a family council had been held over the protracted labor, at which the calling in of another *dhai* and the removal of the patient to hospital had been discussed, but the *dhai* had objected to "any more black *dhais*," and the husband had negatived the hospital alternative, and so they had decided to ask whether I would come and see the case.

The choice of treatment plainly lay between seizing the feet and so easily securing a longitudinal presentation by the breech; and an attempt at external cephalic version, with risk of accidental rupture of the membranes during the process and so of losing the good chance of the feet without gaining the head. The membranes, however, seemed so strong and the pains so mild and infrequent, that the latter plan appeared to me justifiable. After working away for some time at external manipulation, the *dhai* evidently entering into the spirit of the enterprise and giving me intelligent assistance, and when to external appearance some ground had been gained, I again examined internally and found the feet still there (though a little more to the left), and no sign of the head. It was clearly a dorso-posterior position with a very small and flexible child, offering therefore comparatively slight purchase on the large parts of the fœtus; so I then determined to change tactics and resort to podalic version as more simple under the circumstances. Without administering chloroform, I introduced my hand to secure the feet, and in so doing encountered the head, above the sacral promontory to the back of the uterus, and succeeded in bringing it to the brim of the pelvis. In endeavouring to rupture the membranes in order to ensure the engagement of the head, I found them so tough that it was impossible to rupture them with the finger, and it was necessary to pierce them with the wire stilette of my clinical thermometer. (For brevity's sake I am omitting all description of the antiseptic precautions observed; but they are to be understood). The pains now became regular and frequent; and the os being distensible and the fœtus small, I handed the case back to the *dhai*, anticipating an early spontaneous termination.

But progress was very slow, and I soon had to resume the conduct of the case. The artificial rupture of the membranes having converted the labor into a "dry" one, the remaining dilatation of the os proceeded very slowly and a swollen anterior lip soon developed, forming an obstacle which the pains were not forcible enough to overcome, even when aided by gentle digital pressure from below. There was at no time any indication for instrumental interference, nor the remotest prospect of any such arising; but the patient was greatly fatigued, and both she and her friends were evidently disappointed at the delay after the error of presentation had been corrected. So, after a couple of hours had passed with little or no advance of the head and but slight change in the condition of the os, I resolved to re-inforce the pains with a dose of liquid extract of ergot m.vii, repeated after half an hour, when the result proved insufficient; and in due time a couple of strong pains expelled the child (which was living and cried promptly) and immediately afterwards the placenta. The uterus retracted firmly at once, there was no hæmorrhage, and the patient made a good recovery.

———:o:———

NOTES ON AN INTERESTING CASE OF NASO-PHARYNGEAL POLYPUS, SUCCESSFULLY REMOVED.

By Surgn.-Lieut.-Col. W. H. Henderson F.R.C.S.I.
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Patient named Sidik, aged 19 years, was admitted into the hospital on 10th February 1898, for a large growth in the right nostril extending to the mouth.

Condition.—Patient very anæmic. Pulse weak and intermittent. Breathing very labored; the right half of the nose completely blocked by the growth, which was about the size of an orange. On examination, the growth was found to be protruding through the right nostril and backwards through the right posterior nares occluding both the nares to such an extent as to be seriously interfering with the respiration, occupying the superior aspect of the pharynx and pushing the soft palate downwards and forwards. On digital examination, the tumour was found to be soft to the feel in front, but hard and ulcerated posteriorly.

11th February 1898—The operation.—It was resolved to remove as much of the growth as was possible. The patient having been brought under the influence of chloroform an incision was made in the right side of the nose commencing a little below and outside the inner canthus, and terminating in the median line of the upper lip. The detached portion, being reflected to the other side, the nasal portion of the tumour was fully exposed, but as there was not sufficient room for the removal of the whole, as much of it as was possible was snipped off. The pharyngeal portion was then

laid open by incising the soft palate in the median line. It was then drawn forward by passing a silk ligature through it, and as much of it also as was possible was removed by scissors. The remaining portion of the tumour (*i.e.*, the central) which could not be reached, either through the nostril or mouth, had to be left untouched, as further operative interference was deemed unsafe, as the patient had already been long enough under the influence of chloroform.

3rd May 1898.—As the patient had evidently lost a considerable quantity of blood during the last operation, he was put on a course of iron treatment, and the character of the pulse was carefully watched, and though he seemed greatly improved, the intermittency of the pulse remained unaffected. During the interval, however, the tumour grew rapidly, showing itself through the nostril and mouth. Further operative interference was therefore deemed necessary, and it was this time resolved (i) either to expose and remove the growth by performing an osteoplastic section of the superior maxilla, after preliminary tracheotomy (ii) or to lay open the anterior nares, by incising the upper lip in the median line, carrying it from the ala of the nose upwards, a little away from the median line, with an osteoplastic section of the nasal bone, if necessary.

Having regard to the intermittency of the pulse and general delicate state of the patient, it was decided to attack the tumour by the latter and less extensive operation. The amount of space obtained by incising the parts up to the nasal bone having proved to be quite sufficient for handling the tumour on all sides, feeling its attachments and snipping it off with scissors, further extension of the incision involving the osteoplastic section of the nasal bone was dispensed with.

Remarks.—It was during the course of this operation that the tumour was found to be firmly attached to all the osseous surfaces, surrounding the posterior nares, *viz.*, the basilar process of the occipital bone and inferior surface of the sphenoid bone, posterior part of the hard palate, below the pterygoid process on the outer side of the vomer on the inner side. Extensive as the attachments were, they could be reached and dealt with all round with ease. The results were so satisfactory, and the space obtained so considerable owing to the pliancy and dilatibility of the soft parts, that it is surprising how so little mention of it is made in the standard works on the subject. The operation is altogether so devoid of danger that, it is hoped, an extensive trial will be given to it.

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AN INTERESTING CASE OF PULMONARY ABSCESS, TREATED AS LIVER ABSCESS BURSTING INTO THE LUNG.

By R. G. Kar, L.R.C.P. & S. Edin.
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Reported by Beni Madhav Basu, C.M.S.C.
House Surgeon to the Hospital.

Keshirode Coomer Nath, of Bbowanipur, aged 40 years, was admitted to the hospital on the 11th November last, suffering from hepatic disturbance. Stated that this was his third attack, the first having occurred a year previously had lasted two months, the second attack lasted a shorter period, whilst the third and present one had started five months ago.

Symptoms.—Pain over the shoulder and liver, tenderness over the hepatic region, jaundice and constipation. He had been to the Medical College Hospital, where he had been treated for liver abscess, after which he was admitted into the South Suburban Hospital, Bhowanipur, where he had been treated for two months on the same line. General appearance slightly anæmic, skin rough and dry, fever every evening preceded by a feeling of chilliness.

Cough very troublesome, sputum rusty colored. Respiratory murmurs a little louder on the right side, also vocal resonance slightly increased, percussion sound slightly dull on the same side. Heart sounds normal. Liver increased upwards to the nipple in front and angle of the scapula behind. A spot about ¾ inch below the nipple and 1½ inch externally was very tender to the touch. Spleen normal.

Dr. R. G. Kar prescribed the following on the 11th November 1897:—

R	Ol. Eucalyptus	3ii.
	Ol. Terpentine	3i
	Acid Carbolic	3ss.

For inhalation on cotton wool.

R	Lint. Iodin.	3ii.
	Lint. Belladonnæ	3iv.

To paint over the painful hepatic region.

R	Tinct. Camphor Co.	$m_{\frac{1}{2}}$ x
	Ammon Chlorid	gr. x
	Tinct. Cinchonæ Co.	3ss.
	Pot. Bicarb	gr. x
	Ol. Copaibæ	$m_{\frac{1}{2}}$j.
	Mucilag Acacia	gs.
	Aquæ	ad 3i

Four times a day.

The range of temperature from 11th to 17th November was 101°2F. in the morning to 102°6F. in the evening.

From the 17th to the 29th November patient improved. No rise of temperature, but the cough was very troublesome; for this he was given

R	Liq. Morphinæ Hyd.	$m_{\frac{1}{2}}$ iiss.
	Pulv. Acaciæ	q. s.
	Mel	3ss.

To be given as linctus every three hours.

The fever rose up to 102°F. from the middle of December. On the 21st it was 105°6F. Pain over the chest and hepatic region increased.

The temperature now kept normal and the pain over the chest and hepatic region subsided. The temperature again rose to 102° in the beginning of February, cough very troublesome, brought up bloody pus in great quantities with the sputum, could not digest anything.

R	Tinct. Hamamelis ...	$m_{\frac{1}{2}}$vi.
	Ext. Ergot Liq	$m_{\frac{1}{2}}$x.
	Sodi Sulph.	grs. vi.
	Liq. Morphini	$m_{\frac{1}{2}}$x.
	Tinct. Enonymin	$m_{\frac{1}{2}}$viii.
	Aquæ Chloroform ... ad...	3i.

Four times a day.

Sodi Benzoat	...	...	grs. v.
Salol ...	...	...	grs. v.
Quinin Sulph.		...	grs. iv.
Enonymin	...	...	gr. i.

Three times a day. To aid digestion and subdue fever.

In the beginning of March 1898, the condition of the patient continued the same but the spitting of blood had diminished. The cough was very troublesome. Temperature rose up to 102°F. and 103°F. All medicines were changed to the following:—

R Guaiacol Carb	...	...	grs. v.

Twice a day.

R Sodi Benzoat	...	...	grs. v.
Salol ...	...	...	grs. v.
Quinin Sulph.		...	grs. iv.

Twice a day.

R Liq. Arsenicalis	...	...	mjiii.
Vin. Ferri	...	...	mxx.
Tinct. Gentianæ	...	...	3ss.
Aquæ	...	ad...	℥ i.

Twice a day after food.

3rd April 1898.—Fever rose up to 103°F. and 104°F. Dyspnœa was more marked. Could not lie in recumbent position.

On inspection, it was found that the right side was slightly bulged. On percussion, the right side of the chest was of wooden-dullness, but slight resistance was felt at the time of percussion. On auscultation not the slightest breath sound was heard on the right side, but the heart sound was conducted on that side. At that time Dr. KAR suspected empyema. He then introduced a hypodermic needle within the pleural cavity when pus came out. He then aspirated in the 5th intercostal space and a quantity of pus escaped. A rubber drainage tube was put through the canula and the other end of the tube in a corked bottle, but the pus was too thick to come out.

6th April.—Paracentesis thoracis was performed, and a large quantity of pus came out. Dressing was changed every two hours.

Large quantities of pus escaped daily. The patient's vitality was fearfully lowered, and he succumbed on the 14th April.

Post-mortem.—It was found that the pleura covering the right lung was thickened about ¼ of an inch and adherent to the chest wall. The whole of the right lung was a big cavity, except at the apex. The cavity was simply covered by a thin layer of lung tissue and was full of thick pus.

Pleura was not adherent to the diaphragm

Liver was enlarged, specially the left lobe.

Left part of great omentum was adherent to the abdominal wall.

No fluid in the peritoneal cavity but fluid was found within the subcutaneous tissue.

Mitral valves were slightly thickened.

Remarks.—This case had been diagnosed in the Medical College Hospital and South Suburban Hospital and Calcutta Medical School Hospital as liver abscess bursting into the lung, all the symptoms were in favor of that disease, but at the *post-mortem* it was found to be a big abscess of the lung.

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1st June 1898.

THE CALCUTTA CORPORATION AND ITS CROMWELL.

WHEN a representative body, whose main province is to act, becomes transformed into a mere talking machine, when important and urgent measures are merely looked upon as opportunities for chopping logic, when useless discussions follow on each other's heels without producing any result, when in fact the time of the representatives is wasted and the interests of those they represent neglected, and when all this waste and neglect means loss of money, loss of health and loss of life, it is quite time that a CROMWELL should appear and in solemn tones warn such a body to amend its ways.

Sir A. MACKENZIE has played the part of CROMWELL to the Calcutta Corporation; in our last number we discussed some of the clauses of the new Act which is to come into force on the 1st of April 1899 We will now turn our attention to the reasons which have been put forward to justify its introduction, and we will briefly consider the present constitution of the Municipality, its methods of procedure, and the sanitary condition of Calcutta under its auspices.

AN UNWORKABLE CONSTITUTION.

We learn from the letter addressed by the Bengal Government to the Government of India, dated 7th March 1898, that under the present law there is no Municipal constitution at all in the proper sense of the word. The Act vests in the Commissioners all powers, but it allows the Chairman to exercise all the powers vested in the Commissioners (with a few exceptions). But the Commissioners have the power to limit or alter any action the Chairman may take, or even has taken under this power. It further confers an unlimited power of controlling the Chairman by the action of Committees. By thus failing clearly to define the powers of the executive, the Act renders it impossible to say as regards any given matter in what part of the Corporation the executive resides, or indeed whether there is any executive at all, and the Chairman appears to be reduced to a cypher.

Sir HENRY HARRISON remarked in the Bengal Council on 4th February 1888:—

"The *rôle* which the elective Commissioners for the native wards have at once assumed is precisely that of checking, watching and controlling in every way, in seeing either that no expenditure is incurred without sufficient reason, or that projects of improvement are not undertaken which cannot be fully justified. They have in fact been the brake power in the municipal train. But a train cannot progress by brake-power alone, nor can a city thrive by opposition alone.

UNWORKABLE COMMITTEES.

Since Sir HENRY HARRISON's time the power of the Chairman has, it appears to the Lieutenant-Governor, been gradually dwindling and the interference of the "Committees" been rapidly growing. The "motive-power" has been decreasing, and the "brake-power"

becoming too strong. Under Section 43—by these comes the General Committee, which deals with Budget and Finance and such other business as may be referred to it by the Commission or does not fall within the sphere of any other Committee. When the Chairman and the majority of the General Committee concur, and inconvenience is likely to arise from delay, action can be taken in anticipation of the confirmation of a General Meeting, but not otherwise. Under section 55 the Commissioners may appoint any other Committees either standing or special, and consisting of so many members as they may think fit for the purpose of enquiring into and reporting upon any matter connected with the conservancy or improvement of Calcutta, etc. Besides two special Committees, one of 14 members, to deal with the question of the amalgamation of the Roads and Conservancy Departments, and a Boundary Committee of 17 members, there were in 1895-96—

(1) the Bye-laws Committee with 9 members ;

(2) the Loans Committee with 9 members ;

(3) the Hackney Carriage Committee with 6 members.

These subjects do not apparently interest the Commissioners greatly, and the Committees were comparatively small ; but as we go on we find—

(4) the Water-supply Extension Committee with 31 members ;

(5) the Busti and Town Improvement Committee with 38 members ;

(6) the Suburban Improvement Committee with 21 members ;

(7) the Roads, Buildings, Conservancy and Tramways Committee with 48 members ;

(8) the Complaints Committee with 33 members.

The Chairman and the majority of a Committee, if in accord, have the same power as the General Committee of anticipating the action of a general meeting

Exception is taken to the number of Committees, especially to the Complaints Committee, which was held to have been a mistake from the beginning and which is said to take two months to dispose of a single complaint, though complaints come in at the rate of twenty a day.

Many of the Committees are obviously too large for effective work, but in 1896 a change was made in the wrong direction by allowing any number who liked to serve in any Committee, so that they swelled and became dropsical beyond the power of action.

An Ineffective Executive.

The Chairman and Executive, it is stated, have far less power than they ought to have, and it may almost be said that there are as many Chairmen as there are members of Committee. Thus questions that under any reasonable system would be settled by the Executive, are submitted to the Committees, for consideration and orders, the Executive evidently finding it useless to move without previous sanction. Even if orders are issued by the Executive under the Act, they are not infrequently brought before one or other of the Committees for revision. A common procedure is that a Sub-Committee is appointed to enquire and report (*i.e.*, to do over again the work of the Executive, whose reports apparently command comparatively little respect). Work is sometimes suspended. The Sub-Committee may report in course of time, or it may "lose the papers." Sometimes it keeps the matter pending for months or even years. A more effective device for hampering promptness of executive action could not be invented.

Again, it frequently happens that when the Executive, *i.e.*, the Engineering Department, refused sanction to construction as opposed to the Building Regulations, the aggrieved parties got the matter put before the Building Committee and the Executive reversed.

Building Regulations.

Discussing these Regulations in 1895, Mr. M. N. Ghosa said :—"From a common-sense view the law and the bye-laws seemed good enough ; but sometimes the ingenuity of lawyers and sometimes the Commissioners themselves who had cases to support had made the rules unworkable. In many cases when they were absolutely plain and unambiguous, they had been twisted so as to make them inoperative and futile."

Babu Kallynath Mitter "maintained that the bye-laws had been violated on the most flagrant manner possible."

Within the Corporation itself they were many who were quite alive to all these shortcomings ; regarding Busti improvements, Babu R. C. Paul said :—"Busti improvement was one of the greatest necessities of the town ; but it was now practically at a standstill. There were many bustis in the Northern Division of the town which were in the same state now as they were ten years ago." "It was a long-standing complaint that the working of the Conservancy Department was going from bad to worse."

And Babu N. N. Sen expressed the same opinion. But there is no use multiplying instances of the most wanton dilatoriness and delay ; there is no denying that all this is a strong indictment of the way in which the Municipal affairs of Calcutta have been managed, and proof that the time had come for some improvement in the system of Municipal government.

Representation on the Corporation.

We read that the Hindus alone outnumber all other nationalities in the Corporation. In 1876 a Select Committee was formed to consider the proportional representation of the city, its proposals were, however, not well received, and were rejected in deference to the views of Babu Kristo Das Paul, who urged that the system of proportional representation would be inelastic and would prevent Hindus from electing Europeans as their representatives. "It might be said that the larger number of rate-payers being Hindus, they would flood or swamp the Corporation ; that was to say, the majority of persons elected would probably be Hindus, and that other sections of the community would be over-ridden. He did not think that that would be the case. For his own part he thought that the Hindus were well aware that they had to learn a good deal from Europeans, and that in the matter of Municipal management they by themselves could not do much. United with Europeans, they could do a great deal, but single-handed the Hindus were too weak. So he did not believe that the result would be in the direction apprehended."

Whether Babu Kristo Das Paul made this suggestion in good faith and sober earnest we know not, but there is something in it so delightfully ingenuous, so strongly reminiscent of the simplicity of the "Heathen Chinee," that we are almost inclined to think that the learned gentleman must have "winked the other eye!"

At any rate his prognostication was not realised, and the "Mild Hindu" continued his preference for his compatriots.

The results of the working of the present Municipal law in Calcutta may, we read, be summed up as follows :—

(1) The conservancy of the town has been shown to have broken down in material points ;

(2) the collection of the rates has for a long time been defective, and about two lakhs of revenue have yearly been written off as irrecoverable ;

(3) important branches of the accounts have fallen into confusion ;

(4) the uncertainty as to the respective functions of the Chairman and the Corporation has paralysed the action of the executive ;

(5) the European commercial community is inadequately represented and does not exercise the influence to which it is entitled.

Certainly a grave and disgraceful state of affairs for the leading city in India.

Insanitary State of Calcutta.

We will turn to the Health Officer's Report for 1896 for a few side views on this subject. From what follows it will be seen that he had some reason for thinking that the appointment of the Building Commission would be the announcement of a new era in the sanitation of Calcutta, that some of the Commissioners did not agree with him we can readily attribute to their knowledge, guilty or otherwise, of the means by which the best rules and regulations can be misused and rendered nul and void.

Talking of over-crowded areas he says:—"The condition of the worst of these areas is indescribable. Ocular demonstration alone conveys to the mind a state of affairs that words fail to depict. Every one, I have taken over the area bounded by Rutton Sircar's Garden Street on the north, Canning Street on the south, Chitpur Road on the east and Clive Street and Durmahatta Street on the west, is unanimous in condemning it as unfit for human habitation and a source of danger to the town. The whole area is intersected by narrow lanes and passages ranging from 6 to 20 feet in width. Only one broad road, the Harrison Road, and that recently constructed, passes through it from east to west. The houses facing these narrow streets are two, three and four stories high, and are often separated from one another by passages two and three feet wide. In these narrow passages, in such situations, as often to be almost inaccessible, are the latrines of the houses which in many cases are merely compartments with openings in the floor communicating with a long shaft leading to a dark and ill-ventilated privy-vault where the *excreta* have, in consequence of their long descent, splashed in every direction, and formed a cess-pool which it is impossible to clean properly. To connect some of the latrines with the sewerage system only gives rise to conditions equally as bad, because they are used and badly used by a large number of the people, mud taking the place of soap for ablutionary purposes. Under these circumstances, unless there is an unlimited supply of water, and in fact even then, the pipes and taps become choked and overflow. The houses are chiefly occupied by Marwaries whose habits are such that all refuse is thrown, from whatever part of the house they occupy, into the court-yard in the centre of the house or into the passages between the houses, some of which are so narrow as to suspend in mid-air kerosine tins or similar articles which may be thrown from the upper stories. The narrow ill-ventilated streets, the passages to which neither light nor fresh air have access, the filthy condition of both, the close proximity of the houses to one another and their over-crowded state combine to form conditions which render proper sanitation impossible."

A Model Native House.

The following is an example of what a builder will construct if uncontrolled :—

77, Cross Street.—A four-storied *pucca* house approached by a narrow passage and divided into two parts and so surrounded by houses that it has no through ventilation whatever. The court-yard of the inner building measures 66 feet long and is 5 feet broad ; over it is a bridge 7 feet wide connecting the two ranges of stories separated by the 5 feet wide court-yard. Viewed from above the court-yard is a long narrow well and at the bottom which corresponds to the ground-floor are 19 apartments each measuring about 12 feet × 6 feet × 10 feet, and occupied on an average by 4 persons, being less than 200 cubic feet per person. The rooms are pitch-dark, and until the eye becomes accustomed to the want of light, it is impossible to see the occupants of the rooms without artificial light. There is no ventilation except by the door opening into the court-yard. Latrines are dark, unventilated and without flushing arrangements. The rooms facing the court-yard on the higher stories become lighter as the top is approached, but none have any through ventilation. The other court-yard measures 21 feet by 7 feet, and the rooms are in somewhat similar condition to those described above. An application has been made to have this house closed as uninhabitable.

For further details of this unsavoury description we turn to Dr. Bank's Reports from October 1896 to March 1897, and his evidence before the Medical Board, and the following are some of the facts which come to notice :—

Overcrowding.

Overcrowding.—There was great overcrowding in Wards 2, 5, 6, 7 and 8, where houses of two, three and four stories were inhabited by monthly tenants who are shop keepers, hawkers, brokers and occasionally pilgrims. The houses were separated by narrow lanes or passages into which all refuse was thrown, and drop privies discharged their contents. One such lane separating two-storied houses in Ward No. 5, 60 feet long by 1½ feet wide, was found closed at both ends and containing a mass of refuse 9 feet high. In another case, a similar lane between three-storied houses, measuring 100 feet by

1 foot 4 inches, was closed at one end by a privy and at the other by a pucka wall, and was filled with house-refuse, night-soil and other filth. In a third the passage was only nine inches wide, and no mehter could get access to the privy.

FILTH IN EXCELSIS.

Private privies.—The ordinary private privy consists, according to Dr. BANKS, of a hole in the floor, about 9 inches in diameter, with a seat about the height of a brick. In the case of ground-floor rooms the night-soil drops usually about three or four feet without any conducting pipe into a vault below, where it is received either in a porous earthenware *gumla* or in a hole in the floor of the vault, from which it is baled out by the mehter. In the case of privies on upper floors there is sometimes a conducting pipe of masonry or Raniganj pottery into the vault, but as often as not there is no pipe. In order to clean these privies the mehters have to crawl on their hands and knees, or even to lie down, in order to get at the *gumlas*, some of which are so large that they cannot be moved, and are never properly cleaned. The vaults are usually quite dark. Ninety per cent. of the urine soaks into the floor or gets into surface-drains. The number of private privies was stated to be 60,970, of which 22,830 are *pucca* of the type described above, and 32,990 *kutcha* with seats and vaults of masonry, walls of bamboos or mats, and roofs of tiles or corrugated iron. Only 5,142 are connected with the sewers and have flushing arrangements. Connected privies were never cleaned except when the connection was reported to be choked. From one such privy in Harrison Road, serving a house occupied by 90 persons, 14 tons of night-soil were removed by the extra staff. Another in Burtola Street was full of night-soil and choked by 50 old shoes. Many similar instances were found. There were 1,996 mehters for unconnected privies, each of whom had on an average to look after 2J 2 privies

Such conditions as those would be a disgrace to any city in the world, how much more so then to one which adopts to itself the grand title of City of Palaces; it is to be hoped that the light which recent events have served to throw upon these matters may lead to steps being taken by those immediately reponsible to prevent a recurrence of such scandals, and we sincerely hope that CROMWELL'S second visit, the result of which we need not recall to our readers, may never be needed.

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SUNSTROKE AN INFECTIOUS DISEASE.

WHEN a writer introduces an idea not only novel and startling but also subversive of what has been universally taught and accepted for ages, the least that we have a right to expect of him is that he should give us sufficient and reasonable grounds for the attitude he takes up.

We cannot find that this condition has been carried out by Dr. L. WESTENDRA SAMBON, in a paper contributed by him to the *British Medical Journal*, 19th March 1898, under the following title: "Remarks on the Etiology of Sunstroke (Siriasis). Not Heat Fever but an infectious disease."

He introduces the subject by setting forth that syncope and sunstroke are not the same disease. He says it is surprising that syncope should have been confounded with sunstroke, and we think so too, but we were under the impression that Indian writers had sufficiently differentiated between them.

Sunstroke or "Siriasis," as he prefers to call it, he defines thus, "an acute disease characterised by hyperpyrexia, profound coma and intense pulmonary congestion. Its mortality is exceedingly high. It has a peculiar geographical distribution; it prevails in the hot season, and occasionally in an epidemic form."

He proceeds to show that the authors who support the generally accepted theory are not agreed as to the exact manner in which the symptoms are brought about, and that there is much difference of opinion as to the true pathology.

True, but it is a well-known fact that we are very ignorant of the effects on the body of long continued exposure to heat. This ignorance is freely admitted in most works upon physiology and hygiene, but while it is to be deplored, it surely cannot be accepted as any proof of the correctness of Dr. SAMBON'S hypothesis

The fact that we are ignorant of the exact effects of prolonged exposure to heat on the organism, is no proof that heat has no effect at all.

When he says that the explanations offered, "are all based on the preconceived idea that heat is the *sole* efficient cause of the disease," he is not only wrong but he contradicts himself, for in another place he says: "The belief that heat alone could not account for Siriasis has often been expressed," and he admits that the oldest Anglo-Indian surgeons mention as causes of Siriasis "sun or heat and something more"

This being so, the examples he brings forward to show that the body can sustain great heat in ovens, in mines and bakeries without siriasis ensuing is totally irrelevant.

He mentions that CHABERT, the "Fire King," was in the habit of entering an oven the temperature of which was from 400° to 600°F; this has a coincidental interest for us, for in the portion of this number dealing with the "Life and Times of THOMAS WAKLEY" we shew how WAKLEY exposed this very CHABERT who was nothing more than a clever imposter

He mentions also that Chinese, Andamanese, and Negroes expose themselves with bare and even shaven heads to the sun with impunity, but to argue from this that the sun cannot produce the disease called sunstroke in a European, is about as convincing as to argue that because the heat of the plains of India does not disagree with a Bengal Tiger it would therefore have no effect upon a Polar Bear.

He also tries to make out that Europeans expose themselves to the greatest heat of the sun without suffering ill effects, and cites the Assam tea planters and Europeans in Arizona and South Colorado. This is no argument at all; for Europeans in India, at least, never *expose* themselves to the sun; on the contrary, they protect themselves from it by every means in their power. The fact of being able to go out in the sun is no proof of exposure to it. What are solar topies and umbrellas for?

Again we are told that in many fevers the body temperature is very high, and yet siriasis does not supervene, but what this has to do with sunstroke we do not know.

Dr. SAMBON says "that the high temperature of siriasis and other fevers is not due to retention of heat is proved by the fact that under no condition is the mechanism of heat dissipation so wonderfully active as in "fever." Even supposing this to be so, the amount of heat dissipated must depend in a very large measure on the condition of heat and moisture of the surrounding atmosphere.

"Fever, he says, is the symptom common to all infections," and he suggests that it is a means of defence against micro-parasitic assailants.

To push what is here vaguely outlined to its logical conclusion would simplify pathology and etiology very much: thus the thermometer would tell us there was fever, fever is the symptom common to all infections, "we know that such symptoms are due to the toxins produced by micro-organisms," therefore there must be a micro-organism.

If all this were generally admitted, the author need not have written a line of his paper, for the fact of there being fever would alone be sufficient proof of the existence of a micro-organism and the existence of an infectious disease.

But if it is not universally admitted, in fact if it on the contrary be very much doubted, what value can possibly be assigned to it in the case of sunstroke?

"The symptoms of the disease," we read, "its relapses, its morbid anatomy, its peculiar geographical distribution, its epidemic outbursts, the conditions of climate and soil under which it prevails, the relative immunity to its attacks afforded by acclimatisation, all clearly point to the specific infectious nature of the disease."

We are much disappointed with the meagreness and unconvincing nature of the remarks our author has to make under each of these headings.

Regarding the symptoms of which he gives an excellent account, we note that he says "the onset happens mostly at night," this is certainly not our experience, and in the cases which we have met where the onset was nocturnal, alcoholism played an important part.

Under morbid anatomy, he draws an argument from the characters of the blood. "The blood," he says, "as in all cases of septic disease, is invariably fluid, extremely dark in color, and decidedly acid," but what of that, considering we do not know the exact causes which brings about this condition in "septic disease."

We can find nothing worthy of the adjective "peculiar" in the very slender and incomplete details given of the geographical distribution. Dr. SAMBON says that sunstroke is unknown in Europe, yet we find three undoubted cases in Hilton Fagge which occurred in Bristol.

"Siriasis is characteristically a land affection," but we read it is common on board ships in the Red Sea, and not unknown in the Persian Gulf; this is only what we would expect, for sailors know no better quarters.

As for epidemics, as the term merely means that numbers of people are affected at the same time, there is nothing peculiar in the fact that this should be so, as the conditions sufficient to produce sunstroke in one are very likely to produce it in a number.

Meteorological conditions, which no doubt play a most important part, are dismissed in a very light and airy way, altogether out of proportion to the influence usually assigned to them.

Dr. SAMBON tells us that "the specific organism of siriasis is probably spread in the superficial layers of the soil, like other pathogenic micro-organisms, and may be conveyed to man with dust blown by the wind, or thrown up under the tread of marching columns."

It is a matter for regret that he did not find this micro-organism before predicting its existence in such an unconvincing manner.

We do not know if Dr. SAMBON holds that siriasis spreads from man to man, at any rate he gives us no instance of this mode of infection.

Taking his paper as a whole, we consider that he has not advanced a particle of reliable evidence in support of the extraordinary hypothesis he has taken up. He has however conferred a great benefit upon us by opening our eyes to the fact that on the subject of sunstroke there is still much to be done by accurate observation and details of cases. Sunstroke has been too much looked upon as *une chose jugé*, this can no longer be the case.

We are aware that a very large number of cases occurred amongst the troops engaged in the recent Frontier Campaign. Many of our readers must be well acquainted with many of them, and we will gladly welcome to our columns any communications or observations under this head, embodying the date, place and general circumstances under which the attack took place, the time of seizure, and the conditions of the atmosphere as to heat and moisture as far as possible.

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THE LIFE AND TIMES OF THOMAS WAKLEY, FOUNDER OF THE *LANCET*.

THE pages of the *Lancet* offer numberless examples of WAKLEY'S "shortest way with dissenters" from orthodox medical faith. He had a genuine horror of quacks, and was keenly alive to the wrongs which the medical profession suffered then, as it suffers now, from the lying statements and impudent pretensions of charlatans.

As good examples of his methods, the exposures of CHABERT, the "Fire King," the O'KEYS, and Dr. ELLIOTSON'S mesmeric mediums may be mentioned.

CHABERT was a blatant quack, a fire-eater, a prussic acid swallower, and an obviously vulgar imposter. Dr. ELLIOTSON was one of the most distinguished physicians of his time.

CHABERT flourished in London at the end of 1829. He claimed to be able to drink boiling water. Oil at a temperature of 350°F and molten lead and various poisons including prussic acid, arsenic and phosphorus. WAKLEY designated him the "Fudge King" and announced his intention of exposing him.

Accordingly, on the 4th February 1830, the Argyll Rooms, where CHABERT was accustomed to perform these feats, was crowded by a large number of scientific men. CHABERT opened the ceremony by denying that he had ever made the above statements, but was greeted by shouts of ridicule in the midst of which WAKLEY advanced to the stage, he produced a small vial of prussic acid

[illegible] King," assuring him at the same time that he would be dead in ten seconds if he drank it. The poor charlatan tried in vain to avoid WAKLEY'S invitation and to get a hearing, it was useless, and he fled from the stage amidst the wildest excitement and was obliged to take refuge in a coal cellar to avoid the fury of the audience.

Dr. ELLIOTSON was a very different person. He was the senior physician on the staff of University College Hospital and a man who held a deservedly high position in the profession; such being the case, the story of his connection with animal magnetism, and of his experiments in a kind of black art, conducted at University College Hospital, forms one of the most extraordinary pages in the medical history of the century.

ELLIOTSON was a man of a very original turn of mind and a great experimenter, and in all that follows, he was held by those who knew him to have been more of a dupe than a rogue. First he took up a certain Baron DUPOTET, who claimed to cure epilepsy by a mesmeric sleep; then he took to employing mediums in the persons of ELIZABETH and JANE O'KEY.

These two hysterical girls being thrown into slumber were invited to tell the time by watches applied to their elbows or navels; were asked questions as to the proper medical treatment of themselves and other patients, etc.

These proceedings led to considerable uneasiness and discussion amongst the Governors and staff of the hospital to which WAKLEY'S attention was attracted, and in the *Lancet* he pointed out with his unerring, cool common sense that the whole solution of the question lay in the question whether the O'KEYS were honest and trustworthy or not.

To test this point an exhibition was held in WAKLEY'S house in Bedford Square, when the girls totally failed to act up to their assumed character, and were completely exposed as imposters.

The result was that ELLIOTSON was pronounced to be unfitted for the responsible post of senior physician to University College Hospital, and was forced to resign.

The refusal of insurance companies to fee the profession for the medical examination of their clients was another grievance which WAKLEY successfully combated. In 1840 he took up this subject in the *Lancet*; he held that the policy of the companies in withholding from medical men the remuneration to which their services clearly entitled them was suicidal and also mean. Why, he said, should such advice be rendered gratuitously? Let the medical man make it clear that he would not answer the questions of a life insurance office unless he was properly paid for his trouble, and the companies would sooner or later make advances towards them.

In competition with the older companies a new one was started called the New Equitable, of which WAKLEY was a director; the first prospectus stated that "all medical questions shall emanate from and the answers be directed to their own medical examiners;" also a payment of two guineas was to be made to every legally qualified medical practitioner for every official report rendered by him to the medical examiner of the company.

This company met with great success and speedily outdistanced many of its rivals and brought about the change in their attitude to the medical adviser, which to the benefit of the profession exists at the present day.

In 1851 WAKLEY began in the columns of the *Lancet* the most useful agitation in favour of legislative reform that ever engaged his attention. It was in this year that he decided to issue the results of microscopical and chemical analysis of the food-stuffs, solid and fluid, in general consumption by the nation.

The scope of the inquiry was to form an attack upon prevalent methods of adulteration and sophistication of food, so thorough and uncompromising that it would on the one hand frighten individual evil-doers into better behavior and on the other open the eyes of Parliament to the absolute necessity for State interference.

A number of articles, including coffee, sugar, arrowroot, chicory, mustard and bread were submitted to the most exhaustive analysis and the results published; these were startling and showed that the most gross and extensive frauds were being perpetrated. A very large amount of interest was at once aroused; the popular excitement created by these revelations transcended even WAKLEY'S enthusiastic expectations and made legislation against such abuses a matter of immediate importance. A select Parliamentary Committee was appointed in 1855, and the result was the first General Adulteration Act, which became law in 1860.

To any one who has read this brief account of WAKLEY'S life, it must be evident that the amount of work he got through day by day must have been enormous. The following is a programme of his regular day's work for twelve years. At eight in the morning WAKLEY would arrive at the *Lancet* office, breakfast and go through his letters. Soon after the parish clerks and coroners' officers would arrive and the list of inquests for the day would be made out. Then the editorial work for the day would be arranged, concerning which WAKLEY was most precise in his directions, allotting it with every precaution to secure the most useful information and the most trustworthy results for his readers. By nine his carriage with fast trotters would come to the door and he would start on his round of inquests. He rarely returned before six, and usually took his luncheon in his carriage, where he had elaborate arrangements both for feeding and writing. On completing his round, if necessary, he would attend any committee of the House to which he belonged, arriving back at the office by six o'clock. He would then sleep for an hour or so. On waking he would put in order what he had written while driving from one court to another, would look through the "copy" which had been sent in by the staff during the day and finally interview the printer. Then he would go to the Reform Club or to Bedford Square for dinner, thence to the House of Commons. On returning from the house possibly at a late hour he would finish dealing with the voluminous correspondence of the day, answering such communications as must necessarily be replied to under his own hand, regardless of the flight of time, and making notes in other matters to be dictated in the morning.

All this work was done with an enthusiasm which reduplicated the wear and tear as though he were determined to exhaust his heart and nerves as much as his muscles.

In 1850 he felt the first warnings that he was overtaxing his strength, and he made a few attempts at

relaxation, one was outlined in a memorable letter to his friend, DOUGLAS JERROLD.

WAKLEY's idea of a holiday, however, was simply to change the sphere and scene of his labors, not to abate them. In 1851 came the serious breakdown. One night he was found by a policeman unconscious outside the door of the *Lancet* office. He had that day started at sunrise from Harefield, had held seven inquests in different parts of his great district, and had been unable to snatch more than a hurried mouthful of food; he then had to go to the House on important business, and it was midnight before he left Westminster. He then started for the *Lancet* office to attend to his correspondence. The test was too much even for him, and he fainted at the door.

This occurrence put him seriously on his guard, and in 1852 he resigned his Parliamentary duties.

In 1857 Mrs. WAKLEY died, and he then handed over a share in the management of the *Lancet* to his sons.

In the winter of 1860, he began to be troubled with a persistent and severe cough, attended by occasional attacks of hæmoptysis, and it was soon seen that he was seriously ill and losing flesh steadily though slowly. Still he kept working on with the same enthusiasm as of old, until in January 1861 marked debility awoke him too late to a sense of the urgency of his symptoms; he accordingly placed himself under medical treatment at Brighton and for a time made steady progress towards recovery.

It was not to be however: constant attacks of hæmoptysis wore him out, and in October 1861 he sailed for Madeira. He here hired a small house with large balconies, standing in a grove of trees, and settled down for the winter to live a life as far as possible out of doors in the balmy atmosphere.

He made many friends, and the English colony were surprised to find one with so redoutable a reputation, simple, unostentatious, a pleasant companion, full of reminiscences but not in the least egotistical, an expert chess and whist player, and one in particular whose interest in life had not decreased with his frailer hold upon it.

His appetite returned, his weight increased, and in a letter dated 19th April 1862 he said that his restoration to health was sufficient to warrant him in hoping that he would be able in a very few weeks to return home and resume his official duties as coroner. But it was not to be! The end was not for off. On 11th May when landing from a small boat, he slipped and fell on the beach and the fall brought on severe hæmorrhage from the lungs, from which he never rallied.

He died peacefully and painlessly five days later. His body was embalmed in accordance with his expressed wishes, brought to England, and burried in Kensal Green Cemetery, where his wife and daughter already lay.

The following words of the late Sir JOHN ERIC ERICHSEN will be found in a letter addressed by him to the Editors of the *Lancet* and published in that Journal, 26th December 1895:—

"The present generation of medical man know little of him(WAKLEY) and are for the most part ignorant how much they owe to him for exposing and fearlessly attacking the manifold abuses that existed in every department of the profession, in the colleges, hospitals and medical schools in the first third of this century. Corruption, jobbery, nepotism, promotion by purchase, were rife in the colleges and hospitals, and medical education was at a low ebb when WAKLEY entered upon his career as a journalist. By his outspoken and fearless denunciations of these abuses he brought about their reform and so cleared the road to fame and fortune for those members of the profession who had to rely solely on their own ability and power of work. It was in fact Mr. WAKLEY who made a WILLIAM JENNER or an ANDREW CLARKE possible."

Surely this high estimate of the value of WAKLEY's work was just.

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THE FIFTEENTH MEETING OF THE COUNCIL OF THE INDIAN MEDICAL ASSOCIATION.

IN accordance with Notices issued by command of the President, the Fifteenth Meeting of the Council of the Indian Medical Association was held at its Office, 50 Park Street, Calcutta, on Friday, the 13th May 1898, at 6 P.M.

Present.—Dr. LAL MADHAB MUKERJI, Rai Bahadur (President, in the Chair), Dr. E. W. CHAMBERS (Vice President), Drs. J. G. ANDERSON, K. G. SIRKAR, R. D. GHOSH and J. R. WALLACE.

Business.—(1). The Notice calling the meeting having been read, the Minutes of the last regular meeting of the Council was read and confirmed.

2. The Secretary represented that in obedience to the resolution of the Council passed at its last meeting, regarding the memorial of the Independent Medical Practitioners of Mussoorie, the following letter had been addressed to the Government of India:—

TO THE SECRETARY TO THE GOVERNMENT OF INDIA,
HOME DEPARTMENT, SIMLA.

Calcutta, 21st May 1898.

SIR,—I have the honor, at the direction of the Council of the Indian Medical Association, to forward the annexed correspondence, consisting of (1) A Memorial from the British Medical Practitioners of Mussoorie to the N.-W. P. and Oudh Government, seeking redress of their grievance on the ground of the Civil Surgeon competing with them in private practice, such competition, owing to the Civil Surgeon's official position, seriously handicapping the memorialists in their legitimate sphere of work. (2) The reply of the N.-W. P. and Oudh Government to the said Memorial, and (3) The representation of the Council of the Indian Medical Association to the N.-W. P. and Oudh Government in connection with the above.

The Council feel that the Memorial of the British Practitioners of Mussoorie, points to a very distinct hardship and grievance, as well as to a violation of the avowed policy of Government which prohibits officials from engaging in private remunerative work. The Council further desire to emphasise the fact that the reply given by the N.-W. P. and Oudh Government to the Memorialists accentuates the need and the justice of the prohibition of private practice to a hard-worked and over-burdened medical officer, if not in the interests of the Memorialists, certainly in the interests of the public. It is the bounden duty of the Council to respectfully claim the best atten-

tion of the Government of India to the important principle that underlies the question of prohibiting highly-paid State Medical Officers responsible for important duties, from infringing a definite ruling of Government which is stringently applied to all officers of the State Services, but which rule hitherto has not been made applicable to officers of the Indian Medical Service. It is important and necessary in this connection, to urge that the conditions of supplying the public needs of the inhabitants of large Indian cities, more especially provincial capitals and hill stations, have materially altered during the past ten years, and that in all these centres there is a sufficiency of British Medical Practitioners, as well as highly trained and fully qualified Indian Graduates of Medicine, to supply the needs of the public, both European and Indian, and that therefore the time for withdrawing the privilege of private practice to State-paid doctors has unquestionably arrived.

The Council, having regard to the argument or reason for the continuance of the privilege of private practice to State-paid Surgeons, *viz.*, that by such monetary inducements the best class of medical men are attracted to the Service, while neither admitting the justice nor the need for any such inducement to candidates to enter the Service, desire to suggest, that while prohibition of general and family practice should be maintained against State-paid doctors in large cities and hill stations, the Council do not at present urge the withdrawal of the privilege of purely consultative practice to State-paid doctors, *i.e.*, their consultation with family physicians and general practitioners.

In conclusion, the Council entertain the earnest hope that the continuance of the present unsatisfactory conditions of medical practice in the large cities and hill stations of India, which entail so much hardship on the independent medical profession of the country, both British and Indian, will be recognised by the Government of India as necessitating the prompt and effective interference of the Government, especially as on the grounds of established principle and acknowledged State policy, the Council of the Indian Medical Association cannot refrain from protesting against this anomaly, nor can they remain satisfied till the Government of India has given effect to their claims and appeals for State protection of the rights and privileges of the local medical profession, both European and Indian.

I have the honor to be,
Sir,
Your Most Obedient Servant,
JAMES R. WALLACE, M.D., F.R.C.S.,
Secretary, Indian Medical Association.

3. The Secretary represented that in obedience to a resolution passed at the last meeting of the Council regarding the complaint received from the Civil Assistants Surgeons of the N.-W. P. and Oudh, to the effect that they were by certain recent orders of their Government, being deprived of their position as Gazetted Officers, he had written to the Government on the subject and had received a reply stating in effect that the complaint was not correct. The following is the Secretary's letter and the reply of the N.-W. P. and Oudh Government:—

OFFICE OF THE INDIAN MEDICAL ASSOCIATION,
150, *Dharamtala Street, Calcutta, 22nd April 1898.*

TO THE SECRETARY TO THE GOVERNMENT,
North-West Provinces and Oudh,

SIR,—Would you be so good as to allow me to have a copy of the recent orders of your Government in regard to the Civil Assistant Surgeons of your Provinces which deprive them of the position of gazetted officers.

I have &c.,
(Sd.) JAMES R. WALLACE, M.D., F.R.C.S.,
Secretary, Indian Medical Association.

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FROM THE UNDER-SECRETARY TO GOVERNMENT,
N.-W. Provinces and Oudh.

TO THE SECRETARY, INDIAN MEDICAL ASSOCIATION.
Dated Naini Tal, 4th May 1898.

SIR,—In reply to your letter dated 22nd April 1898, I am directed to say that no such order as referred to by you in regard to Civil Assistant Surgeons of these Provinces has been issued by this Government.

I have the honor to be,
Sir,
Your Most Obedient Servant.
(Sd.) H. W WRIGHT,
Under-Secretary to Government, N.-W. P. and Oudh.

4. The Secretary represented that he had received the following letter from the Military Department of the Government of India, in reply to the letter of the Council in regard to the grievances of Military Assistant Surgeons and Military Hospital Assistants :—

MED. DEPT. Subordinate.

No. 2051 D.
GOVERNMENT OF INDIA,
Military Department.

Simla, the 5th May 1898.

TO THE SECRETARY, INDIAN MEDICAL ASSOCIATION,
150, Dharamtala Street, Calcutta.

SIR,—I am directed to acknowledge the receipt of your letter dated the 23rd March 1898, making certain suggestions for the amelioration of the grievances of Military Assistant Surgeons and Military Hospital Assistants in regard to status, pay and allowances.

2. In reply I am to say that the question of improving the prospects of the Military Medical Subordinates in question is now engaging the attention of the Government of India.

I am, Sir,
Your Most Obedient Servant,
(Sd.) J. PHILIPPS,
Offg. Asst. Secy. to the Govt. of India.

5. The Secretary represented that in view of the frequent discussions by the Council on the subject of medical education, medical examinations and medical diplomas in India, and in view of the hardship that ensued both to the general public and to the various grades of medical practitioners in this country owing to the unsatisfactory and irregular condition of these matters, the time had arrived when definite action should be taken by the Council, and he proposed that the following letter be approved of by the Council and forwarded without delay to the Supreme and Provincial Governments and to the various administrative medical and educational authorities concerned. The Council unanimously approved

of the latter and it has been despatched to the Government. It is as follows :—

TO THE CHIEF SECRETARY TO THE GOVERNMENT OF INDIA,
Calcutta, 20th May 1898.

SIR,—The subject of reform in medical education and examinations has come prominently to the front in India recently. The *Indian Medical Record*, the organ of the local profession and of this Association, has voiced the public sentiments and views on this subject for the past ten years, and the Council realise most keenly that the time has come when action should be taken to place the question of reform in medical education and medical examinations before the Government, in view to a definite and equalised standard being adopted for the Colleges and Schools of the country.

The Council feel that were they to outline the direction in which reforms should be made, they would indicate them as follows : (1) a uniform standard of preliminary examination ; (2) a uniform standard of education and professional examination ; (3) the formation of a Council to exercise disciplinary powers similar to those of the General Medical Council of Great Britain.

It may be interesting, while placing the subject of these necessary reforms before the Government, to take a glance at the condition of medical education and examinations in the Indian Empire.

In the first place we have no body comparable to the General Medical Council to supervise education and protect the public from the dealings of unqualified persons. In India everything is in the hands of the Government of the country, and it may be well in this connection to ask—How does the Government look after the interests of the public by upholding the standard of medical education ?

As a question of practical importance, it seems to have been altogether lost sight of, so varied and widely divergent are the standards with which we are surrounded, while the number of new schools constantly arising and granting their own diplomas, must strike dismay into the minds of those who are interested in the future welfare of the medical profession in India.

The uniform standard of professional examination, the one portal system for each class, so ardently hoped for by many Indian reformers, is considered as entirely within the bounds of possibility in a country like India, where the State is all powerful and the vested interests are few, so that the question presents no obstacles that cannot be easily overcome.

At the present day, competition with Government schools by private institutions hardly exists in India, but that it will arise in the future, if not prevented, no one can doubt. The existence of two such diploma granting schools in Calcutta is proof of this assertion.

Unfortunately in this country, at the present day, the tendency is to lower and not to elevate the standard of medical education ; for we find the Government willing to accept anything in the shape of a "diploma" as good enough for its own local services and for the medical requirements of the public.

This is a question which demands the earnest attention not only of the Government but of the universities. It is obviously one of the chief functions of a university to uphold and elevate the standard of education, and if it fails to do this, its influence and importance must become depreciated.

Now what is to be said of a University that, without protesting, permits private bodies to grant counterfeits of its degrees ? What can we say, except that it has become a nonentity as far as its influence over education and even over its own rights is concerned.

Yet we have several bodies granting hybrid diplomas. There is the V. L. M. S., which stands for Vernacular Licentiate of Medicine and Surgery, L. T. M. S., Licentiate of the Temple Medical School. What are these but imitations of the L. M. S. degree of the universities ?

These titles are astonishing enough, but what strikes us with utter amazement, is to find the exact counterpart of the university degree granted under the auspices of the Dufferin Fund. How has it come to pass that this Fund grants a License in Medicine and Surgery ?

The whole question must be raised as to the legality of these licences. Under what authority are they given and what benefits do they confer ? Are the holders of them held to be qualified practitioners in the eyes of the law ?

The criterion of qualification in Great Britain is *Registration* under the Medical Acts of the United Kingdom. The degree or diploma in itself is not sufficient to constitute a qualified practitioner, it only enables the holder to be registered. It is registration which confers the benefits accruing to qualification.

A person who is unregistered is unqualified before the law.

What is the criterion of qualification in India ? Under what authority do these different schools, and even private bodies, grant licences to practise Medicine and Surgery, and who is responsible that the education given by all these bodies is up to the necessary standard ? All these are matters which require elucidation, and it is to the interest of all concerned that they should be put on a proper footing by the Government of the country.

When we turn to the universities themselves, we find some anomalies for which we can discover no reason. It is a curious thing that the standard of preliminary education demanded by all is not the same.

In Bombay and Madras the Matriculation opens the way for the L. M. and S. In Calcutta it is necessary, in addition to the Matriculation, to pass the First Arts, and in the Punjab University the Intermediate is required. From this we conclude that the standard of preliminary education is lower in Madras and Bombay than it is in Calcutta and Lahore, and it is obvious that if it were not for the greatness of the distances in this country, most of the students requiring medical qualifications would flock to the two former universities.

Again, there is no uniformity in the degrees that Indian Universities grant. Surely in these minor matters much might be gained by adopting the same *nomenclature*. At present the Calcutta University grants a License in Medicine and Surgery. Bachelor in Medicine and Doctor in Medicine, Madras University grants a License in Medicine and Surgery, Bachelor of Medicine and Master in Surgery, and Doctor of Medicine.

Bombay University grants the degree of Licentiate of Medicine and Surgery, and Doctor of Medicine, but no Bachelor's degree.

To what end are all these differences and minute distinctions?

Uniformity of examination and qualification is required also in the Military Assistant Surgeon class. At present these colleges grant diplomas to these men, and the diploma is different in each case. The Calcutta Medical College grants the D. M. C. C. Diplomate Medical College, Calcutta. The Grant Medical College, Bombay, grants D. G. M. C., and the Madras Medical College D. M. M. C. All these colleges might easily give the same title, say Diplomate in Medicine, Surgery and Midwifery. (D. M. S. M.) The educational standard for Military Assistant Surgeons should be fixed at the University Entrance; the course of study should be extended to five years, and there should still be a preliminary competitive examination.

Much reform is required in the education of Hospital Assistants and the junior class of practitioners on a level with them, who are turned out of State and private medical schools. At present they are all educated in the vernaculars. They should all be educated in English; in fact there should be an English test before they enter upon their medical studies. Finally, there should be one standard examination for all the Government schools that turn out this class of men, their course of study should be four years, and they should receive a definite qualification, say a Certificate in Medicine, Surgery and Midwifery (C. M. S. M.) Private medical schools, which train this particular class, should be placed under State inspection as regards their standard of education and examination and their alumni should be compelled to pass the State examinations of their class. Certificates of qualification should be granted alone by the Government.

It is, however, when we come to consider the mode of appointing the various professors in the different universities that we hit upon the most curious anomalies of all. In making these appointments the Government apparently thinks that because a man holds a good "qualification" he is fit to "profess" in any subject. Doubtless many of those selected would, if given a fair chance; but few possess the necessary versatility to profess in Chemistry one month, in Pathology the next, and perhaps in Obstetrics the next. Yet the exigencies of the service are so great and the tenure of office so uncertain, that this is what is actually demanded. Far more attention should be given to the selection of men for these posts, and the period of office should be fixed, and the longer the period the better, provided the right man was secured for each chair.

In conclusion, the Council of the Indian Medical Association desire to urge the following points in connection with medical education and medical examination upon the serious and early consideration of the Government:—

(1). A unified standard of preliminary examination in general education for admission to medical study for all universities in India. As the F.A. of Calcutta and the Intermediate of Lahore are already accepted by two universities, the other academical bodies should be asked to raise their preliminary educational standard to this level.

(2). That the medical degrees granted by Indian Universities be of one standard, and one nomenclature namely—

(a) Licentiate of Medicine and Surgery or L.M.S.
(b) Bachelor of Medicine or M. B.
(c) Master of Surgery or C.M.
(d) Doctor of Medicine or M B.

No imitations of these degrees should be permitted.

(3). A unified standard of preliminary examination (the Entrance or Matriculation of Indian Universities or the High School Certificate) a full curriculum (5 years) and a unified diploma (Diplomate in Medicine, Surgery and Midwifery or D.M.S.M.) for all Military Assistant Surgeons.

(4). A unified standard of preliminary examination (the Middle School Examination of the Government European Code or its equivalent Entrance), a curriculum of four years' medical study, and a unified professional examination and certificate of qualification for all Hospital Assistants, whether civil or military, and for all junior medical schools, whether State or private. Certificate in Medicine, Surgery and Midwifery (C.M.S.M.)

(5). The formation of a General Medical Council for India (with powers similar to the General Medical Council of Great Britain) composed of an equal proportion of Government officials and independent medical practitioners.

The Council desire to press for the urgent attention of these matters by the Government, as not only do they point to a most chaotic and unsatisfactory condition of affairs medical, but the continuance of their existence is calling into being, uncontrolled, private institutions, which are claiming not only to educate in Medicine, but are granting diplomas to practice the art of Medicine, Surgery and Midwifery. The Council claims that as the representative of the medical profession in India, it would be failing in its duty to the Government, the profession and the public if it did not strongly urge the importance and real necessity for State interference in the matters herein referred to.

I have the honor to be,
Sir,
Your Most Obedient Servant,
(Sd) JAMES R. WALLACE, M.D., F.R.C.S.,
Secretary, Indian Medical Association.

6. The Secretary represented that in view of the strong public feeling that was being evinced in Calcutta and elsewhere, concerning the recent Plague Regulations promulgated by the Bengal Government, and in view of the doubts expressed concerning the real existence of true plague in Calcutta, it seemed imperative that a society of medical men representing the entire local profession of India should utilise such an opportune occasion for the expression of its views on the subject for offering some suggestions calculated to assist the Government in directing its policy to the best public advantage. The Secretary placed a draft letter before the Council and the same was unanimously approved. It has been duly despatched to Government, and is as follows:—

TO THE CHIEF SECRETARY
TO THE GOVERNMENT OF BENGAL, *Calcutta.*

SIR,—I have the honor to request that you will kindly place the following Resolutions, passed at a meeting of the Council of the Indian Medical Association, held at its Office in Calcutta on the 13th May 1898, before H. H. the Lieutenant Governor of Bengal for his consideration:—

I. That the Council of the Indian Medical Association, fully appreciating the difficulties of the Bengal Government in dealing with the social and religious aspects of its plague regulations as they affect the Indian community, desires to express its earnest sympathy with Sir JOHN WOODBURN and his Government in the present circumstances. It further desires to express its grateful appreciation to Sir JOHN WOODBURN for the sympathetic and considerate attitude he has assumed in respect to the feelings and caste and religious usages of the native population while framing the regulations of the Government for the prevention of plague.

II. That in view of the present state of unrest and distress of the Native mind in Calcutta, and in view of the unfortunate consequences arising therefrom, and further having regard to the fact that there is considerable doubt among medical men as to the real existence of true plague in our city, the Council desires to urge the following suggestions for the early attention of the Bengal Government:—

(i.) That a definite declaration be made of the diagnosis of the cases now being pronounced as plague, based upon the following conditions:—

(ii.) The decision of a committee of qualified official and non-official physicians, given after consultation together

on any case or cases of suspected plague, after a careful examination of such case or cases and after due discussion among themselves of the recognised clinical signs and symptoms of the disease.

(*b*) The decision of two competent bacteriologists residing in Calcutta (we would suggest Surgeon-Colonel G. BOMFORD, M.D., First Physician to the Medical College Hospital, and Surgeon-Major J. F. EVANS, M.D., Professor of Pathology of the Calcutta Medical College), who shall declare their opinions on the microscopic and bacteriological appearances of the blood of such patient or patients.

(*c*.) To confirm the bacteriological opinions of these two reputable pathologists, by reproducing plague experimentally in dogs or rabbits inoculated with the blood of such patients.

(*d*.) To depute MONSIEUR HAFFKINE and one of the following officers (Surgeon-Colonel EDWARD LAWRIE, Surgeon-Major RONALD ROSS, Surgeon-Major PATRICK HEHIR, or some other official specialist in microscopy and bacteriology), to express an independent opinion on the same lines of research.

III. That in view of the probable presence of plague and the possibility of an epidemic extension of the disease in the city, the following measures be immediately adopted:—

(*a*.) A thorough cleaning up of the whole city.

(*b*.) The opening up of crowded areas, the remodelling or destruction of unhealthy bustees, and the formation of a few large, straight, wide streets running from East to West, and from North to South of the town.

(*c*.) That the Health Officer be not permitted to employ his time in any other way except in fulfilling those duties which are strictly involved in the true sanitary interests of the town.

IV. That the Government will endeavour to restore confidence, peace and happiness to the inhabitants of the city, chiefly the native population, by adopting such measures for the prevention of disease which, while they ensure public safety, do not conflict with the social customs, caste prejudices and other religious feelings of the Hindu and Mahomedan communities.

V. In connection with the above Resolution, the Council desire to invite the attention of the Government of Bengal to the representation made by the Council to the Government on the 23rd March 1897 on the subjects of the Sanitation of Calcutta and Plague Regulations.

I have the honor to be,
Sir,
Your Most Obedient Servant,
(Sd.) JAMES R. WALLACE, M.D., F.R.C.S.,
Secretary, Indian Medical Association.

7. The Secretary placed before the Council a representation from Mr. DEO LAL, a Civil Hospital Assistant, of the Central Provinces, complaining of his wrongful dismissal. Mr. DEO LAL'S case was duly considered together with the representation made by his solicitors, Messrs S. J. LESLIE and SONS of Calcutta, and the Council being satisfied that Mr. DEO LAL'S case was deserving of its support, have forwarded the same to the Director-General, Indian Medical Service, for favorable consideration.

8. The Secretary reported that 12 new members had applied to be admitted to the Association since the last meeting of the Council. They were all duly elected. He further reported that 21 new members had joined the Indian Medical Association Provident Fund, thus bringing the total membership of the Fund up to 220. The Council again regretted the apathy of members of the Association in joining the Provident Fund, and once more appealed to all those concerned in its success to become members of the Fund without further delay.

9. With a vote of thanks to the chair, the meeting was closed.

COMMENTS AND NEWS.

PETTICOAT GOVERNMENT IN PLAGUE MATTERS.

IT is a curious instance of the petticoat government which rules supreme in India that a great city like Calcutta cannot take the initiative in providing itself with a competent bacteriologist at the present crisis. Even the Bengal Government seems to be powerless in the matter, and the Government of India has to be besought to procure one. In this, as in all other questions relating to medicine, it has shown itself to be somewhat tardy.

The following letter in reply to the Secretary of the Bengal Chamber of Commerce, dated 16th May 1898, speaks for itself:—

"SIR,—I am directed to acknowledge the receipt of your letter No. 639, dated the 18th of May 1898, in which the Chamber suggest—

(*a*.) The advisability of engaging, as early as possible, the services of a bacteriologist of the highest attainments to investigate and report on the cases of plague which have recently occurred in Calcutta. The Chamber are of opinion that if such an officer can be obtained, the appointment should be made permanent, so that whenever outbreaks of epidemic disease take place they may be promptly and fully investigated.

(*b*.) That pending the appointment of an officer such as above described, the cases of plague already reported being few in number, a committee of medical experts, consisting both of official and non-official medical men, be appointed to determine whether the disease can now really be said to exist in the city.

(*c*.) That, in order to restore confidence in the minds of the people, an official declaration be made that plague does not exist in the city in an epidemic form.

2. I am directed to reply, as follows, to each of the suggestions made by the Chamber:—

(*a*.) A reference was made to the Government of India some time ago on the general question of making adequate provision for bacteriological research, and they will now be addressed again on the subject. The Chamber will understand that an incompetent bacteriologist would be worse than useless.

(*b*.) Under the Venice Convention the occurrence of even a single case of plague must be reported officially. A number of such cases have occurred which have been pronounced to be plague by the leading medical men, official and non-official, in Calcutta, and their unanimous opinion has been continued by the independent scientific testimony of Mr. HAFFKINE. If the Chamber would like to depute any medical practitioner to see the cases in hospital every facility will be given by the Health Officer for his seeing them.

(*c*.) Plague does not at present exist in an epidemic form, but it will certainly assume that form if all suspicious cases are not promptly reported and dealt with under the rules.

I have the honour to be, Sir, your most obedient servant,—
H. H. RISLEY, Secretary to the Government of Bengal."

MEDICAL EXAMINATION FOR LIFE INSURANCE.

DR. CALWELL read a paper at the Ulster Medical Society upon Moot Points in the medical examination of life insurance cases. He advised a good general physical examination of applicants, but thought some of the schedules in use quite too minute. The use of the ophthalmoscope, laryngoscope, and clinical thermometer might be reserved for cases with special indications. In cases where cardiac mischief was

employed to make inquiries to establish both the standing and the exemption questions. As regards the diathesis of past illnesses—(a) syphilis—an applicant was insurable under the usual circumstances as marriage was permissible, that is, three years after the initial sore, with one year's freedom from symptoms. (b) Hæmoptysis: Apart from obvious disease in other organs, nearly all these cases were tuberculous and the risk must be adjudged accordingly; (c) Alcoholism: Permanent reform was rare, and these cases were rarely insurable; the teetotal section in various companies showed a decidedly better expectation of longevity than the general section; (d) Pleurisy: it should be borne in mind that a certain considerable proportion of these cases ultimately became tuberculous as regards heredity, a family history of longevity was very important, but no material help could be derived from such considerations as prepotency, different ages of parents, etc. Of the points arising in the physical examination of applicants the following was important: (a) Pulse, or the whole cases with low tension of pulse had less vital resistance than those with higher tension, but regard must be had to pathological increase of tension. Intermittency must be interpreted in the light of its cause. Epigastric pulsation was not of much significance. As regards valvular disease, cases with aortic reflux or mitral stenosis were not insurable, but mitral regurgitation was not a complete bar. In such cases, provided there were no cardiac symptoms, no evidence of changes in the myocardium or chambers, general nutrition and habits favorable, the risk might be taken with a heavy addition. The importance of hoarseness depended on the result of laryngoscopic examination. As regarded albuminuria, permanent albuminuria was a complete bar, but cases of the so-called "cyclic albuminuria" required much consideration and repeated examination. In the absence of a history of nephritis or evidence of renal change, the insurability of these cases might be entertained. As regarded glycosuria, if temporary, under control by dieting, and if the family history was good, it did not preclude insurance.

CURIOSITIES OF MEDICINE.

"ANOMALIES and Curiosities of Medicine" by DRS. GEORGE, M. GOULD and WALTER L. PYLE is a book which must command the attention and interest of all medical readers. It is a complete epitome of nature's eccentricities collected from all the most reliable sources. It is more than a mere compilation; for the authors have not only ordered and arranged their facts in an admirable manner, but they have digested and set them forth in the form of a most readable book—a book which stands apart from all others, and makes an era for itself.

The attraction which the fabulous, the marvelous or the merely extraordinary possesses for minds of every description is well known, and the ever verdant interest of fairy tales bears out the fact, this work however, appeals to the higher understanding and even in the realms of the fabulous, touches and moves the scientific sense.

Imaginative medicine is well illustrated in the following extract:—

"L. G. CAPERS of Vicksburg, Miss, relates an incident, during the late Civil War, as follows: A matron and her two daughters, aged fifteen and seventeen years, filled with the enthusiasm of patriotism, stood ready to minister to the wounds of their countrymen in their fine residence near the scene of the battle of B——, May 12, 1863, between a portion of Grant's army and some Confederates. During the fray, a gallant and noble young friend of the narrator's staggered and fell to the earth; at the same time a piercing cry was heard in the house near by. Examination of the wounded soldier showed that a bullet had passed through the scrotum and carried away the left testicle. The same bullet had apparently penetrated the left side of the abdomen of the elder young lady, midway between the umbilicus and the anterior superior spinous process of the ilium, and had become lost in the abdomen. This daughter suffered an attack of peritonitis, but recovered in two months under the treatment administered. Marvellous to relate, just two hundred and seventy-eight days after the reception of the minie-ball, she was delivered of a fine boy, weighing 8 pounds, to the surprise of herself and the mortification of her parents and friends. The hymen was intact, and the young mother strenuously insisted on her virginity and innocence. About three weeks after this remarkable birth Dr. CAPERS was called to see the infant, and the grandmother persisted that there was something wrong with the child's genitals. Examination showed a rough, swollen, and sensitive scrotum, containing some hard substance. He operated, and extracted a smashed and battered minie-ball. The doctor, after some meditation, theorized in this manner: He concluded that this was the same ball that had carried away the testicle of his young friend, that had penetrated the ovary of the young lady, and, with some spermatozoa upon it, had impregnated her. With this conviction, he approached the young man and told him the circumstances; the soldier appeared skeptical at first, but consented to visit the young mother; a friendship ensued which soon ripened into a happy marriage, and the pair had three children, none resembling, in the same degree as the first, the heroic paterfamilias."

And the following is a good example of rough surgery:—

"MARSH (in the *New York Medical Record*, 1867) cites the case of a woman of forty-two, the mother of eight children, who, when eight months pregnant, was horned by a cow. Her clothes were not torn, but she felt that the child had slipped out, and she caught it in her dress. She was seen by some neighbours twelve yards from the place of accident, and was assisted to her house. The bowels protruded, and the child was separated from the funis. A physician saw the woman three quarters of an hour afterwards, and found her pulseless and thoroughly exhausted. There was considerable, but not excessive, loss of blood, and several feet of intestines protruded through the wound. The womb was partially inverted through the wound, and the placenta was still attached to the inverted portion. The wound in the uterus was Y-shaped. The mother died in one and a half hours from the reception of her injuries, but the child was uninjured."

The first chapter treats of genetic anomalies, the next three of prenatal anomalies, obstetric anomalies, and prolificity. The chapter which follows and deals with physiological and functional anomalies, is specially interesting, as we would expect, in it we have a number of cases of bloody sweat fully discussed, etc.

Other chapters treat of surgical anomalies of the various parts of the body, curious skin diseases. Nervous and mental affections, etc.

From cover to cover the book is full of interest, and the reader is constantly thinking of the immense amount of care and labor that must have been bestowed upon it.

The authors are to be congratulated on having so successfully tackled so Herculean a task.

ADENOID VEGETATIONS IN THE VAULT OF THE PHARYNX.

HYPERTROPHY of the pharyngeal tonsil, or adenoma, occurs in two varieties. The first consists of spongy, stalactite projections from the vault of the pharynx; the second of smooth fibrous tumors of irregular shape. They are very vascular and contain lymph cells and a follicular structure resembling that of the oral tonsils.

This is mostly a disease of childhood and is oftenest seen under the tenth year.

The most striking features in a pronounced case are the parted lips, prominent eye balls, obliteration of the normal lines of expression of the face and a constant appearance of listlessness and inferiority. Mouth breathing, a noisy respiration, snoring and a lack of resonance of the voice are typical symptoms. There is a characteristic thickness of speech or nasal intonation. There is a copious tenacious discharge of a greyish or bloody color. Examination with the finger causes bleeding. There is a history of recurring colds in the head, earache, diminished hearing, noises in the ears or otorrhœa.

I rely mostly on digital examination in making a diagnosis.

The prognosis is good if the adenoids are thoroughly removed. The natural tendency is to absorption in early adolescence. It is the practice of some rhinologists to treat adenoids with washes, sprays, caustics, the galvano-cautery, etc., for periods varying from four to fourteen months, but I prefer the one, painless operation, lasting but five minutes and insuring a radical cure. The best anæsthetic for this operation is ethyl bromide. Before administering it, the little patient should be calmed into a tranquil state of mind, for if there is great excitement, the drug is not so efficacious. The instruments are sterilized by boiling or steaming, and the mouth gag is inserted between the molar teeth. It must be carefully held in place by an assistant until the operation is completed; otherwise it slips out of place and allows the jaws to close, after which they are separated with difficulty. The patient is held in a sitting posture on an assistant's lap. An ounce tube of ethyl bromide is emptied into an air-tight inhaler and administered as in etherisation, allowing no air to enter. Anæsthesia is induced in about one minute and lasts about five minutes. Not more than half an ounce is taken, but the remainder will not keep for subsequent use. The patient quickly recovers consciousness, and after lying down for a few minutes he is ready to be taken home.

The instant anæsthesia is complete, Gottstein's large or small ring curette is inserted behind the velum and upward near the vomer to engage the central highest mass first. Then the cutting surface is passed backward and downward in contact with the posterior pharyngeal wall as far as the growths extend, the same movement is executed on either side wherever there are growths, sweeping them all out by three or four passes of the curette. Finally the finger is inserted to discover if any remnants remain. If so, they may be detached with the finger nail or curette.

As soon as all the adenoid tissue is extirpated, the gag is removed, and the patient's body is inclined forward with the face downward. The surgeon loudly commands the patient to "spit it out!" The blood escapes through the nose and mouth, and the patient at once begins efforts at expulsion. The blood is thus prevented from entering the larynx or stomach.

Hæmorrhage lasts but a few minutes, and generally ceases by the time full consciousness is restored. This method deprives the operation of the horrors experienced by children whose adenoids are extirpated without anæsthesia.

Although instances of severe hæmorrhage from this operation are reported, I have never witnessed any. In my experience, with a considerable series of cases, none but satisfactory results have been obtained.

One needs to take care not to wound the orifices of the Eustachian tubes, or to drag a mass of the adenoid tissue down into the throat and leave it hanging there by the pharyngeal membrane intact. I have observed this condition after what must have been a hasty and incomplete operation. The finger need not be inserted into the pharyngeal vault while the curette is in action, but one should not fail to examine immediately after curetting to ascertain if the adventitious tissue has been completely removed.

I have never seen any bad effects from the use of ethyl bromide. It is as safe as ether and far more preferable for such short operations.

The operation itself is not difficult, and I have never regarded it as dangerous. It is a simple curettement in an easily accessible cavity, provided the mouth is kept properly gagged.

THE INCOMPATIBILITY OF ANTIPYRIN AND SODIUM SALICYLATE (IN POWDER FORM).

SAYS the *New York Medical Journal*:—"In a letter WILLIAM J. ROBINSON, of New York, calls attention to the fact that antipyrin and sodium salicylate cannot be dispensed together in powder form; immediately, or within a short time, liquefaction takes place and when the powders reach the patient he is likely to find no powders at all, but only thoroughly-soaked pieces of paper. Though for practical purposes it is immaterial whether the change is of a chemical or of a purely physical nature, it is his opinion that the liquefaction occurs in virtue of a true chemical reaction HELBING, in his 'Modern Materia Medica,' says:—'The reaction of sodium salicylate and antipyrin sometimes stated to be the result of a chemical change, has been decided, by careful research, to be merely the result of deliquescence, the salicylate acting as a carrier of moisture to the more soluble antipyrin (spica).' To this statement the author is unable to agree. Sodium salicylate is permanent in the air,—*i.e.*, it does not attract moisture; nor is antipyrin *more* soluble. Rather the contrary. Antipyrin is soluble in 1 part of water, while sodium salicylate is soluble in 0·9 part of water. Nor does sodium salicylate contain any water of crystallization which might be liberated during trituration and act as a solvent for the antipyrin (as is the case with many salts).

"The subject of the incompatibility of the two above-mentioned drugs was recalled to my mind by an occurrence which took place a few days ago.

"A physician was called in to a patient suffering with acute articular rheumatism; the fever was very high, and the pains were excruciating. The doctor prescribed powders of phenacetin, antipyrin, and sodium salicylate, and the druggist was asked to make them up in a hurry. It was a damp evening, and when the medicine was brought to the patient, there was *not a particle of powder* left, only a box of wet papers. The druggist was asked for an explanation, but he said that it was none of his business, that he made up the prescription as the doctor wanted, and if anything was wrong they should apply to the latter for information. They went to the doctor, he was out, and another physician was sent for. He relieved the patient by an hypodermic injection of morphine and prescribed capsules of phenacetin and salol; he was asked to take further charge of the case. Thus, non-familiarity with the important, but sadly neglected, subject of incompatibilities lost the physician a good family."

APPRECIATION OF MEDICAL WORK.

THE following generous appreciation of the work done by the medical profession is taken from the *New York Evening Post*, 28th March :—

"Those who grumble most over the dues demanded by doctors are least aware what noble liberality is shown by the profession in the gift of their highest skill and of priceless time in which they might refresh themselves, entirely 'without money and without price.' And this, outside the walls of hospitals, merely in response to appeals in behalf of those who were not able to come to them as paying patients.

"I have seen a great specialist gently tear a cheque in two and lay it on a convenient table, after he had made a visit which involved a journey and the loss of half his day, because he knew the money would be a comfort to his patient. And I have known the same man to treat case after case with his utmost skill and care, without a thought of payment; and, if his purse now overflows, he could have doubled his fortune had he always had paying patients.

"That there are many grasping, selfish, and even unjust physicians goes without saying; they are of our common humanity, and no profession, business, or trade is without men with these characteristics; but that as a body, they labor more for the relief of the suffering of the world without adequate reward than any other class of educated men, I sincerely believe, cannot be questioned.

"Their opportunity is unique, but their influence and assistance in the history of our households is a great testimony to the sympathy and patience and large-hearted comprehension of man with and for his fellow-man in this urgent, crowded, self-seeking age of ours. Human brotherhood, which has no name or guild, is vitally alive among our doctors. Sleepless nights and anxious days, hours of tense apprehension, the exertion of almost superhuman ingenuity to relieve pain, mark the going to and fro of many a quick-moving 'buggy' in our busy streets; and if one in a thousand is so fortunate as to acquire wealth as the result of his practice, let us rejoice for him."

CALCUTTA PLAGUE.

SPORADIC cases of so-called plague continue to appear in small numbers and keep every one in a state of tension and alarm The statistics, however, are so far very encouraging. Up to Thursday, 27th May the total number of recorded cases was 69 and the total deaths 55; in this there is nothing very appalling, while, on the other hand, the total daily death-rate of the city is more often than not, below the average of previous years.

No good will be gained by entering into any detailed account of the various cases from a clinical or bacteriological aspect. Suffice it to say that a considerable difference of opinion prevails, which we leave with an easy conscience to the decision of the future historian.

It is generally conceded on all sides that no such thing as epidemic plague exists in Calcutta at the present time, and with this opinion we are satisfied.

The worst feature of the matter is the excited and highly inflammable state of the native population; the wildest and most improbable rumours are eagerly seized upon, spread broadcast, and accepted with a faith that is positively amazing, there is nothing too wildly, too incredibly impossible to be believed.

The result is a series of disturbances almost amounting to riots, which, if not promptly checked, will lead to a reign of terror for Europeans, and especially for those who are in any way connected with plague work.

Dr. LAING'S unfortunate experience, when he was assaulted by a mob, who in its boldness penetrated even into a private house, will be a lesson to all medical men, that it is unsafe to prosecute their ordinary duties unarmed. It was fortunate that Dr. LAING had a loaded revolver, and we congratulate him upon the courageous attitude he assumed in not fearing to use it. The result of his three shots was the retreat of the rioters and the death of two of their number. Had Dr. LAING found himself in this precarious position unarmed, there is very little hope that he would have escaped with his life, and we would have had the sad duty of recording the murder of another European, at the insane hands of an Oriental mob. The moral we read is, that it is high time the authorities saw the necessity of properly protecting all its employés in the pursuit of their duties.

THE FEELING IN DUBLIN IN REFERENCE TO THE ARMY MEDICAL DEPARTMENT.

THE interest which is felt here in reference to the Army Medical Service has been increased rather than diminished by the strangely conflicting replies of the Royal Colleges of Physicians and Surgeons respectively to the request of the Director-General. The Council of the Royal College of Surgeons met on 29th March for the special purpose of considering the matter and after an exciting debate decided to accept the suggestion and to nominate two surgeons for temporary service in the Army Medical Department in reliance on the pledge given by the Government that the newer reforms would be carried out. At a largely attended meeting of the President and Fellows of the Royal College of Physicians, held on 1st April, the following carefully considered resolution was unanimously adopted :—

Pending the issue of a warrant in accordance with the statement recently made in the House of Commons by Mr. POWELL WILLIAMS, M.P., Financial Secretary to the War Office, as to prospective arrangements for improvements in the Army Medical Department, which arrangements, if carried out as indicated, would, it is believed, at once secure a competition by a sufficient number of high-class candidates to fill the vacancies that now exist in the service by competitive examination in the ordinary manner, the College is of opinion that, in the interests of its Licentiates and of the Army Medical Staff, it is not advisible that any recommendations for the temporary employment of civil surgeons for duty with Her Majesty's troops in the United Kingdom should be made by the President in accordance with the request made to him by the Director-General.

The College of Surgeons considered the somewhat vague statements as to the new warrant which emanated from Lord LANSDOWNE to constitute the beginning of a new era for the army surgeon and acted on that perfectly natural assumption. The other College decided on not moving until the document itself appears. The resolution of the latter—the College of Physicians—was quoted in full in the columns of the *Irish Times* of 2nd April and formed the subject of one of the numerous leading articles on the matter which have recently appeared in that journal. The general feeling in Dublin seems to be very much what is embodied in the leading article in *The Lancet* of 2nd April—namely, that the Army Medical Staff and the profession are to be congratulated on the very successful issue of their controversy with the Government.

A MEDICAL ENIGMA.

COUNT CZECK, who claims to be a reduced Bohemian noble, and who for more than a year has puzzled and deluded the cleverest doctors in Chicago, possesses the remarkable gift of being able to simulate any disease under the sun, and to raise or lower his temperature and the beats of his pulse at will.

The Count is a man of thirty-five, of some distinction of speech and appearance, and with a plausible manner which

has never felt much in his temperature. He has a craving for ease and luxury; and, as he has not the means to gratify it, he feigns serious illnesses and is removed to one hospital or another, where for weeks he is tenderly nursed and fed on delicacies. In this way he has enjoyed the benefits of every hospital in Chicago, and has successfully deceived every one of his many medical attendants.

His favorite method is to simulate a dangerous fever, and he is able to raise his temperature to 106deg. or 104deg. and to set his pulse galloping at the rate of 120 or 130 to the minute. He can also develop all the symptoms of a wide range of illnesses in such a way as to completely deceive the doctors.

Another favorite plan of this *malade imaginaire* was to be found in the streets in an apparently dying condition as the result of an attempt at suicide. The cause of the rash act was abundantly clear from his delirious ravings, in which he would call for "ANNIE, the delight of my life." As the victim of unrequited affection he made a strong appeal to the sympathy of his nurses.

Unfortunately, he was not as constant to "ANNIE" as to his scheme of imposition; and at various hospitals he called for so many different fair ones in his delirium—MARIE, LUCILLE, LOUISE, and so on—that suspicion was aroused and the hospital authorities were led to make inquiries and to compare notes. The result was that the pseudo-Count was placed on their "black list," and he has had to seek a new field for the exercise of his novel arts.

BOARDING HOUSE GEOMETRY.

DEFINITIONS AND AXIOMS.

ALL boarding houses are the same boarding house.

Boarders in the same boarding house and on the same flat are equal to one another.

A single room is that which has no parts and no magnitude.

The landlady of a boarding house is a parallelogram—that is, an oblong angular figure, which cannot be described, but which is equal to any thing.

A wrangle is the disinclination of two boarders to each other that meet together but are not on the same flat.

All the other rooms being taken, a single room is said to be a double room.

POSTULATES AND PROPOSITIONS.

A pie may be produced any number of times.

The landlady can be reduced to her lowest terms by a series of propositions.

A bee line may be made from any boarding house to any other boarding house.

The clothes of a boarding house bed, though produced ever so far both ways, will not meet.

Any two meals at a boarding house are together less than two square meals.

If from the opposite ends of a boarding house a line be drawn passing through all the rooms in turn, then the stove-pipe which warms the boarders will be within that line.

On the same bill and on the same side of it there should not be two charges for the same thing.

If there be two boarders on the same flat, and the amount of side of the one be equal to the mount of side of the other, each to each, and the wrangle between one boarder and the landlady be equal to the wrangle between the landlady and the other, then shall the weekly bills of the two boarders be equal also, each to each.

For if not, let one bill be the greater.

Then the other bill is less than it might have been—which is absurd.

THE ROYAL [illegible]

THE speech of the Marquis of [illegible] Queen's House will be received with a feeling of [illegible] not only by the medical officers of the army but by the whole of the medical profession. It is the announcement of the conclusion of a conflict that has been waged for [illegible] a certain amount of acrimony for years; it is the announcement of a victory for the medical profession, a victory in the teeth of the most strenuous opposition that the War Office, with all its cast iron prejudices, was able to offer.

Lord LANSDOWNE'S kindly and appreciative words will long be treasured, and it is with the most thankful feelings that we record them here.

"The army is proud," said Lord LANSDOWNE, "that it contains a number of officers who belong to the medical profession, but who are none the less soldiers in the fullest sense of the word, wearing the QUEEN'S uniform, holding her commission, ready to take their share—aye, and more than their share—of the risks and hardships of warfare. We are determined that there shall be no failure, either in theory or in practice, to treat them with the respect to which they are entitled."

Most gratifying of all it is to find that the title "Royal" is to be granted, this emanates entirely from, and can only be given by Her Majesty, and that it should be granted, proves that the just grievances of medical officers and their repeated cries for due recognition, have reached and been acknowledged by the QUEEN herself.

Other things may have been wrung from obstinate and unwilling officials, but this last is a spontaneous gift, a Royal gift, coming from Royalty itself, it is therefore a priceless guerdon, an acknowledgment of worth and merit, and as such we give our hearty congratulations to the officers who, in the future as in the past, will show themselves not unworthy to bear it.

TO KEEP OUT THE PLAGUE.

MR. R. T. GREEN, C.S., the Chairman of the Calcutta Municipality, has issued the following Plague Circular:—

"The attention of all Ward Committees is drawn to the following points which should be impressed on house-owners and occupiers within their jurisdiction;

1. The necessity of keeping all premises free from filth of all kinds and getting rid of accumulations of rubbish within premises.

2. The advisability of white-washing all rooms and passages.

3. All privies should be cleaned at least twice a day, and all drains flushed and master-traps cleaned periodically.

4. In order to assist the Conservancy Department house-owners and occupiers should be prohibited from throwing sweepings into the streets. The refuse should be stored ready for removal in baskets placed outside the premises which can be emptied into the conservancy carts during their daily rounds. The Chairman places great stress on having these measures speedily carried out.

5. All house-owners should be invited to set rat-traps within their houses and do their best to kill as many as possible.

6. Cases of ill-kept latrines and pail-depôts, offensive urinals and privies, should be promptly brought to the notice of the Chief Engineer.

7. Hide-godowns in populous quarters and other public nuisances, and all unhealthy bustees should be reported to the Chief Engineer who will deal with them as far as possible.

8. *Goala* bustees and cow-sheds, which prove a nuisance to the neighbourhood, should be reported to the Chief Engineer for the Chairman's order."

THE *BRITISH MEDICAL JOURNAL* ON THE NEW CALCUTTA GENERAL HOSPITAL.

A NOVEL feature in the scheme of the new hospital, and one which will undoubtedly add immensely to the comfort of the patients, is its ventilation during the hot and rainy seasons by cold and dried air. The proposal, which will bring about an entirely new arrangement for hospitals in the East, emanated from Brigade-Surgeon-Lieutenant-Colonel CROMBIE. Like most new ideas, it has met with opposition, though the advantages seem sufficiently obvious. During the hot and rainy seasons Calcutta has a temperature varying from 85° to 95° *F.*, and a humidity which frequently reaches 90 per cent. Both are subject to great vicissitudes due to sudden storms of wind and rain. Dr. CROMBIE proposes to establish a uniform temperature in the wards of from 75° to 80°, and a humidity reduced to about 60 per cent. as a necessary part of the process of cooling the air. The relief which this change will give to the cutaneous and exhausted nervous systems will be appreciated by those who have experienced the muggy heat of Calcutta at those seasons. As the cool, dry air is to be passed through screens of cotton wool there will be no mosquitos, and accordingly no necessity for punkahs and mosquito curtains. The advantages are that patients will secure quiet rest at night, and will not lie bathed in perspiration covered with prickly heat, made subject to the chills to which punkahs and sudden changes in temperature render them liable. The cases which will benefit most will be conditions of exhaustion, whether from climate or disease, cases of Bright's disease, and phthisis, for which the climate of Calcutta is particularly unsuitable.

HOW THE CHINESE PREDICT SEX.

SAYS the *Medical Age*:—"Now that the predetermination of sex is to be made possible, it may not be uninteresting to learn the methods whereby the Chinese predict the sex of their offspring. These have recently been enumerated by a French writer. He tells us that when the mother's abdomen is round and prominent, so that it jolts her in her movements, the child will be a girl; whereas if the uterine enlargement be upward, it will be a boy. Nature is not gallant, for even in the uterus the female occupies an inferior position

"A fresh color of the skin, with more or less pigmentation, especially about the areola, and little change in the visage, betokens a daughter, the opposite conditions indicate a boy. Violent movement of the fetal extremities indicate a little lady.

"If after the seventh month the right hand of the fetus can be found on the mother's right side, a boy will arrive. This is a subtle method of diagnosis, remarks our author, as those will know who have held the hand of a young lady in the dark and tried to guess whether or not it is the hand nearest the heart.

"In a like manner the arithmetical methods of the Chinese are peculiar. If the second figure in the age of the mother and the number of the month of probable conception be both even or both odd, then the child will be male—if one is odd and the other even, then a little Chinawoman will appear. These conclusions have, as this observer says, an air of *Chinoiserie* about them, though they are not more grotesque than some of the explanations whereby the occidental mind has sought to elucidate this matter.

A SUCCESSFUL JEWISH LADY DOCTOR.

THE Jewish community of Calcutta has reason to be proud of its first Lady Doctor—Miss RACHEL COHEN, M.B., F.R.C.S. (Dublin)—who is at present qualifying for the degree of Doctor, and hopes to be back in Calcutta to practise among her people in April next. Miss COHEN's collegiate career has been one of exceptional brilliancy. Receiving her rudiments in the Calcutta Jewish Girls' School, she passed the Entrance and First Arts Examinations of the Calcutta University with honors, and then entered the Medical College for the usual five years' course. Her singular aptitude for the profession she had chosen was soon made manifest, and before she left she was a prizewoman of high achievement. She first gained Sir GEORGE KING'S Gold Medal for Botany in open competition, and passed the M. B. Examination in the First Division. Her next honor was Lady ELGIN'S Jubilee scholarship of £100, tenable for two years. With these credentials she sought the "Athens of Scotland," and in the famous medical school of Edinburgh in no way belied her Indian promise. After a sound preparation she passed over to Dublin, where she has just succeeded in becoming a Fellow of the Royal College of Surgeons, and where she intends sitting for the degree of Doctor. The "woman of Israel" may well rejoice over such phenomenal success obtained by one of them on hitherto unbroken ground, and we believe that Miss COHEN will soon find many of her sisters follow her excellent example, with, we trust, equally satisfactory results.

CLINICAL REPORTS IN INDIA.

WE would remind our readers that they owe the *Record* and each other a distinct duty in the matter of sending us clinical reports for publication. India has an unwholesome reputation of being slow in literary productions. Now it is a mistake to blame India, let us pin the fault on to the right sheet. It is the doctors and not the country who are to blame. If every reader of the *Record* would decide to write an original article, or a clinical report even once a year, we should have enough matter to print *ten daily issues* of the *Record*. It is simply a question of arithmetic arriving at these figures. Now the *Record* is a fortnightly and it is a very much read journal, for though it has a circulation of 3,000 copies, it is probably read by over 10,000 medical men as well as laymen. It does seem strange that out of this large number of medical men and medical women, not more than three in each thousand bother their heads to write up clinical reports. And yet India affords one of the richest fields for clinical experience. It is a disgrace to medical science and medical education in this country, that India's large hospitals teeming with cases of intense clinical interest, cannot find men to write up reports of them for publication. Medical practitioners all over the country have a fund of experience well worth recording, yet they allow all this valuable educative material to go to waste. It is a sad comment on the literary energy of medical men in India to have this dearth of clinical recording so strongly and yet so necessarily deprecated. We sincerely trust the local profession will make an immediate effort to remove this reproach, and that each reader of the *Record* will try to send in a clinical report or an original article for publication in his own journal.

THE FUTURE POSITION OF STATE MEDICINE.

THE following extract from an address by Dr. SETH SCOTT BISHOP appears to be applicable to some other countries than the United States:—

"When will the people of America awaken to their own most vital interests, and dedicate a government bureau, with a medical head, to the cause of disease-prevention, State medicine and higher education? We are blessed with a department of agriculture that predicts the weather; a department of war that relieves us of our surplus millions; a department of law that really fights the nation's battles. The time must come when State medicine shall be represented in the National Government, to protect against invasions

[illegible] diseases and to safeguard the [illegible] in every quarter. Our local profession [illegible] ability and the experience to organise, equip and [illegible] conduct such a department of State.

"[illegible] Not until the Government of the United States recognises the vast possibilities of State medicine to conserve the health and vigor of the nation, and to save the great waste of human life that modern scientific research has rendered preventable, can it lay claim to being abreast of the times and the first of the nations of the earth."

THE BIRTHDAY HONORS LIST.

Decorations for the "Profession." (*London Gazette*)

To be Companion of the Bath.—Surgeon-Major-General Robert Harvey

To be Knight Commander of St. Michael and St. George.—Surgeon-Colonel Rogers, Sanitary Commissioner in Egypt.

To be Commander of the Bath.—Surgeon-Colonel Thomson, Tirah Campaign.

To be Companions of the Bath.—Surgeon-Colonels Townsend, Davis and Saunders, Tirah Campaign.

(*Indian Gazette.*)

To be Commander of the Indian Empire.—Brigade-Surgeon Lieutenant-Colonel Branfoot, Medical College, Madras.

To be Khan Bahadur.—Assistant Surgeon Asdur Ali Khan, Bengal.

To be Rai Bahadur—Baboo Surji Kumar Sarbadhicari, Medical Practitioner, Calcutta.

Distinguished Service Order, North-West Frontier Campaign.—Surgeon-Colonel Swayne, A.M.S ; Surgeon-Captain Goodwin, A.M.S ; Surgeon-Major Shearer, I M S ; Surgeon-Captain Fisher, I.M.S. ; Surgeon-Captain Selby, I.M.S., Surgeon-Lieutenant Hugo, I.M.S.

METEOROLOGY AND INFECTIOUS DISEASES.

HERR J. RUHEMANN (*Munchener Medinische Wochenschrift*) maintains that altogether apart from personal predisposition, meteorological conditions influence the occurrence of infectious diseases. A consideration of the facts shows us that some diseases are most prevalent in summer and some in winter, amongst the latter are diseases of the lungs, influenza, diphtheria, measles and scarlet fever. The factor upon which the prevalence of these diseases essentially depends is *sunshine* and especially the ultra-violet rays which form the chemically active portion of it

For a series of years the amount of sunshine has been registered at a number of meteorological stations, and a comparison of their data with the prevalence of influenza establishes the law that in the months with least sunshine there was most influenza and vice versa. The same law, but in a manner less marked, holds for the other chief diseases, also for the number of admissions for tuberculosis into the Berlin Hospitals.

BABY INCUBATORS.

GORDON STABLES, M D, R.N. writes —" Of all inventions ever brought before the public, I think the baby incubator the most cruel and stupid. Poor little infants reared thus are bound to be a misery to themselves throughout life, and if ever they live to be married and have children, these will be weaker and more wretched than themselves. They say that on an island in the Gulf of California there lives a mysterious race of Indians who are the healthiest people and the greatest athletes in the world. No one is allowed into the interior, however. Some years ago, they destroyed all their women and imported an entirely new race. The experiment is said to have been most successful. I cannot recommend it, however. Well, these men in the water are almost like fish, and by means of a kind of kite [illegible] on the wave. N. B.—This is [illegible] of having an incubator they [illegible] intelligent children. Here they [illegible] Again, no one is allowed to live beyond seventy."

ANGLO-INDIANS IN MADRAS.

WE have before us the Report of the Anglo-Indian Association of Madras or Southern India for 1897. It is a record of excellent work, of brave and steady perseverance and of victory over many depressing obstacles to success. Madras deserves immense credit for the skilful manner in which her Association carries on its fight for its rapidly growing clientele, and we have great pleasure in commending the zeal and enthusiasm of our brethren in Madras to the appreciation of our sister Associations throughout the country. The Madras Association has a most successfully and ably conducted weekly newspaper of its own, a journal that is as well edited as any magazine in India We heartily congratulate our Anglo-Indian comrades in the Southern Presidency, and as cordially wish them and their flourishing newspaper, *The Eastern Guardian*, many years of extended progress and unlimited prosperity.

FRENCH ARMY MEDICAL STAFF.

THE Chamber of Deputies has adopted, without discussion, a proposal to increase the medical staff from 1,300 to 1,457 as follows :—

Old Strength.		New Strength.
1	Medical Inspector-General ...	1
9	Medical Inspectors	11
45	Principal Medical Officers, 1st class	45
45	" " " 2nd "	60
320	Surgeon-Majors, 1st class ...	340
480	" " 2nd " ...	500
300	" " aids, 1st class ...	400
100	" " " 2nd " ...	50
...	" " " cadets ...	50
1,300		1,457

The titles in the French Army appear to be very simple.

THE LARGEST-HEARTED MAN IN THE WORLD.

EDWARD LEWIS, of Chicago, is, in a literal sense, the largest-hearted man in the world; and to this enviable distinction he adds that of possessing a heart which is as musical as it is large The beating of his heart is distinctly audible at a distance of several yards, and it emits sounds which are described as distinctly musical.

This remarkable organ has lately been photographed by means of the X-rays, and is found to be nearly three times the usual size, while it has an expansion of 3in. On the left side it extends 3in beyond the limit of the normal heart; and on the right side it reaches to the ribs. LEWIS has for some years been an object of study to the leading physicians and surgeons of the world, who consider him to be the greatest physical enigma living.

DEATH CERTIFICATES.

A MATTER to which attention has been drawn before is the granting of death certificates by unqualified men. There are a number of so-called doctors who, though they have received some training, do not possess a diploma, and in several cases they are called in after death and asked for a certificate which they light-heartedly give, and which is accepted at the burning ghat or Mahomedan burial ground. It is felt that, owing to these irresponsible practitioners, a large number of plague cases do not come to light. The

[illegible] of affairs is [illegible] [illegible] [illegible] [illegible] [illegible] the ghat or burning-ghat before its final disposal, and the cause of death specified by him. The Government, however, declined to sanction the proposal, though it emanated from the Calcutta Health Officer himself, as they very rightly held that it would be an invasion of the caste restrictions of the people and would naturally be strongly resented by them.

THE DANGERS OF FALSE TEETH.

AN inquest was recently held by the city coroner touching the death of a grocer's assistant aged thirty years. The deceased wore false teeth attached to a vulcanite suction plate and fastened to his natural teeth by wires. He was in the habit of sleeping with the false teeth in his mouth. On the morning of 19th March, the deceased unfortunately swallowed the false teeth during sleep. He was taken to the Royal Southern Hospital when the teeth were felt to be impacted at the junction of the pharynx with the œsophagus on the left side of the larynx. As it was found impossible to remove the teeth by manipulation, they were eventually withdrawn through an artificial aperture made in the neck. However the unfortunate man succumbed a week later, septicæmia having supervened.

MADRAS HEALTH OFFICERSHIP.

IN connection with the appointment of Surgeon-Lieutenant J. W. CORNWALL as Health Officer of the City of Madras, the Government of India has enquired of the local Government whether it is intended that that appointment should in future be reserved for an officer of the Indian Medical Service, in which case it would be necessary to request the Secretary of State to increase the cadre of that service, as the appointment is not at present included therein. If it is not the intention of the Government of Madras to reserve the appointment for an officer of the Indian Medical Service, then Surgeon-Lieutenant CORNWALL will be seconded from military duty while he holds the appointment, provided his tenure thereof is expected to last more than a year.

A CENTENARIAN'S MODE OF LIVING.

THERE is at present in Anzin, France, a centenarian, who enjoys such excellent health that he does not despair of reaching the age of 127 years. M. JEAN BAPTISTE DUBOIS—that is his name—pretends to know the art of keeping well, and his doctor agrees that his mode of living suits him admirably. When he rises every morning he smokes a pipe. This is followed by a dish of milk soup. He dines at midday, drinks two glasses of wine, and takes his coffee without sugar. At supper he drinks more wine, and finishes the evening *en famille*. His hobby is gardening, and he varies it by rocking his great grand-daughter in her cradle and singing nursery songs.

THE HEALTH OFFICER AND INOCULATION IN CALCUTTA.

WE quote from the *Englishman* :—"Dr. COOK's time *was fully occupied* on Saturday, the 21st May, in operating on about 250 members of Mahomedan families in Kumarabagan Lane. All these people volunteered themselves to be inoculated, and this is the largest number of operations that Dr. COOK has performed in one day since the commencement of the plague. Dr. (Miss) CHRISTIE operated on all the zenana women. Two hundred more Mahomedans of the same locality have offered to be operated on. The family priest of the Sovabazar family, Pundit [illegible] Chunder Vidyaratna, was inoculated yesterday, with 15 others. Up to date 752 persons have been inoculated." [illegible] of news[illegible]

[illegible] newspapers, and the question naturally [illegible] [illegible] plague. Either Calcutta requires a whole-time Health Officer or a whole-time Inoculator. Which of these is Dr. COOK? If Inoculator, then who is Health Officer? We leave the Municipality to answer this question.

THE DIVINE HEALER ON TOP.

SAYS the *New York Medical Record* :—"The Kansas State Board of Health recently applied to the attorney-general for a decision concerning the enforcing of the medical-practice law in that State. The legal luminary cogitated for a while, and then delivered the opinion that the magnetic healers and the hypnotists and all the other quacks except divine healers can be prosecuted, but adds that the divine healers claim their power to come from Jehovah and that, as he understands it, the rights and privileges of Jehovah can in no way be regulated or restricted by the statutes of Kansas.

SUCCESSFUL INDIAN STUDENTS.

At the quarterly examinations of the Royal College of Physicians and Surgeons of Edinburgh, we notice the following Indian students who have passed successfully :—

1st examination, five years' course.—R. Chisholm, Assam ; A. L. Fielding, Poona, and J. K. S. Bhagvatsinhji, Gondal.

2nd examination, five years' course.—J. B. Swinden, India ; and G. H. Usmar, India.

Final examination.—C. A. Spooner, Bombay ; M. Rust, India ; Frances H. A. Bailey, Punjab ; A. J. Laurie, Allahabad ; and V. H. Roberts, Madras.

FOR PATRIOTIC ANGLO-INDIANS.

"ENGLAND, dear England, our fathers before us
Bled for thy freedom and died for thy fame.
England, dear England our mothers who bore us
Left us their memory entwined with their name.
Ours be the glory to add to the story
Whenever, wherever thy Flag is unfurled.
If great we've received thee still greater we'll leave thee,
England, dear England, the QUEEN of the World."

CERTIFICATES OF INOCULATION.

THE Calcutta Health Office is now issuing certificates to persons who have been inoculated, bearing name, age, caste, sex, address and signature. At the foot of the card a square space is reserved for the thumb mark of the person to whom it is issued. The introduction of these certificates is expected to restore confidence to the minds of the people, and it will at the same time enable them to frustrate the exactions of imposters who go about personating plague officers.

UNEMPLOYED MEDICAL MEN AND WOMEN WITH BRITISH QUALIFICATIONS.

The Council of the Indian Medical Association will be glad to receive and to register for Government employment the names of medical men and medical women, who are desirous of taking up work under Government. Such lists will be forwarded to the Government of India by the Council of the Indian Medical Association.

SHORT ITEMS.

Speaking to the Anglo-Indians of Madras, Mr. President Ryan said:—Do you remember the poet Longfellow's description of the Village Blacksmith.

"Toiling, rejoicing, sorrowing, onward through life he goes.
Each morning sees some task begun, each evening sees its close.
Something attempted, something done, has earned his night's repose."

What are you doing brother for the advancement of the Anglo-Indian Cause in India?

A newspaper proprietor was recently sued for damages by a patent-medicine man for an error which was made in printing a testimonial. By the omission of a comma the testimonial was made to read thus: "I now find myself cured, after being brought to the very gates of death by having taken only five bottles of your medicine." (A comma was omitted after death).

We heartily congratulate Surgeon-Major General Robert Harvey, M.D., F.R.C.P., D.S.O., Director-General, Indian Medical Service, on the distinction of a Companionship of the Bath, so fitly conferred on him by Her Majesty the Queen. Dr. Harvey's recent work on the frontier worthily entitles him to a position in this select order. Let us hope a Knighthood is soon to follow.

Dr. Hossack has arrived in Calcutta from Bombay, and has been placed on plague duty in charge of No. 4 Division. Dr. Bannerman, the Deputy Sanitary Commissioner of Madras, who has been specially deputed for plague duty in Bengal by th Government of India, will, it is expected, be attached to the office of the Sanitary Commissioner of Bengal for duty in the plague districts.

The *Journal of the American Medical Association* tells us that a prominent New York physician was invited to be present at the physiology class of a well-known girl's college where the instructress used a cat for the purpose of demonstrating the uterus and ovaries. The class dismissed, imagine the doctor's astonishment to discover that the cadaver used for the lecture was that of a "tom cat."

The latest discovery about kissing is that instead of being a menace to health, the act of kissing involves only an exchange of microbes that are health-giving, and kissing is therefore an excellent method of administering a microbe tonic of great value in aiding digestion. So says the *Philadelphia Ledger*.

Professor Charcot had certainly as good an opportunity to judge of the value of hypnotism as any physician of modern times, yet as the result of his extensive researches he arrived at the conclusion that not more than one person in a hundred thousand would be likely to be benefited by the application of hypnotism in case of disease.

It is notified that the Governor-General in Council is pleased to prohibit the bringing of used apparel and bedding (except when carried as the personal baggage of travellers), rags and waste paper from Calcutta into any port of British India.

The Autumn Congress of the Sanitary Institute will be held this year in Birmingham, under the Presidency of Sir Joseph Fayrer, Bart., K.C.S.I., M.D., F.R.C.P., F.R.C.S., LL.D., F.R.S., commencing on 27th September. The Council hope that all the members will endeavour to make the Congress of the Institute thoroughly successful.

A woman named M'Grath, residing at Tallow, co. Waterford, Ireland, gave birth to four daughters on the 29th of March. Application was made for the Queen's bounty, and Sir Arthur Bigge, keeper of Her Majesty's privy purse, forwarded a cheque for £4 with a request to be informed as to the health of Mrs. M'Grath's infant daughters.

The degree of M. D. has been conferred upon Dr. Dyanat Rai, the popular private medical practitioner of Ludhiana and Editor of the *Punjab Medical Journal*, by the Chicago University for writing two original articles on cholera and pneumonia.

The human heart is 6in. in length, 4in. in diameter, and beats on an average seventy times per minute, 4,200 an hour, 100,800 times a day, and 36,792,000 times in the course of the year, so that the heart of an ordinary man eighty years of age has beaten 3,000,000,000 times.

To estimate aceton in urine, Mallat (*Nouveau Remedies*) distils the urine to a fourth of it, and after rendering it alkaline, treats the distillate with solution of iodine. The amount of aceton is determined by the amount of iodoform precipitated.

Surgeon-Lieutenant-Colonel A. J. Sturmer has been appointed to succeed Dr. Branfoot as Superintendent of the Government Maternity Hospital. Surgeon-Lieutenant-Colonel Walker, who succeeds him in the 4th District, has been granted eighteen months' furlough.

It is notified by the Government of Bengal that the importation from Bombay and Karachi of butter and victuals in general, is temporarily prohibited, and also the importation of rags, raw wool, hair, hides and furriery coming from or transhipped at those two ports.

The post of Principal Medical Officer, Her Majesty's Forces in India, will fall vacant on 1st December, when Surgeon-Major-General Gore has to vacate on attaining sixty years of age Surgeon-Colonel W. Taylor will probably receive the appointment

Of the seven great physicians, of what has been called the "latter Victorian Era,"—namely Sir William Jenner, Sir William Gull, Sir Richard Quain, Sir Andrew Clark, Sir Spencer Wells, Sir Oscar Clayton, and Sir James Paget—only two, the first and last-named, now survive.

The health of Meerut has been very bad of late. After epidemics of influenza and fever, enteric, that scourge of the cantonment, has been playing havoc with the Connaught Rangers, who have lost several men. All the bazars have been placed out of bounds in consequence.

Dr. Alexander Britto, one of the leading members of the Portuguese community in Bombay, who has for some considerable time been largely associated with plague operations, was married, on Monday morning, at the Church of Our Lady of Rosary, Masagon, to Miss Ernestine Soares.

[illegible] Hankin has arrived at Calcutta from Bombay and has been posted on plague duty. The U. S. Rep. the Health Officer of Singapore has also arrived at Calcutta to learn the progress of inoculation from Dr. Haffkine.

Surgeon-Major Dutton, Civil Surgeon, Dhulia, takes charge of the Medical Store Department, Punjab Command, during the absence of Brigade-Surgeon-Lieutenant-Colonel Calthrop, on leave.

In an operation for mesenteric thrombus, Dr. F. J. Shepherd of Montreal had to excise 8 feet of the bowel. This is the longest piece of bowel removed from a human subject, and the man made a marvellously quick recovery.

The Punjab Government has sanctioned a plague allowance of twenty per cent on pay to all civil officers on special duty in the infected area, and one month's privilege leave for every five months spent on plague duty.

It transpired at the inquest that Assistant Surgeon C. J. Rosburne committed suicide at the Lucknow Railway Station because he had been reduced departmentally. The unfortunate officer was about to be married.

There is no plant, says an English weekly, which animals so detest as the castor-oil plant. A goat will starve rather than eat it, and those destroyers of everything green, the locust and army worm, will not touch it.

Mr. Sydney Hinde, who has been one of the medical officers at Mombassa for the last two or three years, has been selected by the Consul-General of Zanzibar to be the new District Officer of Masailand.

The Catholic authorities at Rome have rendered a decision forbidding the practice of artificial impregnation, devised by Marion Sims. The reasons for this prohibition are not stated in the decree.

Miss Cruickshank, sister of the late Dr. Cruickshank, has given £15,000 to the University of Aberdeen to found a botanical garden in memory of her brother.

Dr. Horace Castellote, F.R.C.P., F.R.C.S., has been awarded the Imperial Gold Medal on account of his conspicuous services in connection with the bubonic plague in Bombay.

A prise of $10,000 is offered by the Belgian Government to any one who invents a chemical that will replace phosphorus in the making of lucifer matches.

A Melbourne chemist subpœnaed to give evidence about a prescription in the Divorce Court, pleaded privilege, but his claim was not allowed.

The Government of Bengal is appealing a second time to Simla regarding the question of making adequate provision for bacteriological research in India.

Oxide of zinc, used on a piece of thick spongy sole leather and briskly rubbed, imparts a high polish to surgical instruments.

Dr. Simmond's curative serum is gaining the confidence of the Medical Faculty in Karachi by its beneficial results on the patients of the Vishvandas Hospital.

Surgeon-Captain Pilgrim is appointed Superintendent of the General Hospital at Calcutta vice Dr. Crombie.

To prevent the nauseating properties of ipecac just add a drop or two of oil of cloves.

Surgeon-General Cleghorn may not return to India.

Current Medical Literature.

MEDICINE.

Case of Rabies with Prolonged Incubation.

FELTS and ARCHAMBAUD give the notes of a case of rabies occurring in a young man, aged twenty years, who died in wild delirium within thirty-six hours after the initial symptoms of the disease appeared. No history of a dog-bite was obtained, and the correct diagnosis, although suspected, was not fully established until after death. Then, in questioning the parents, it transpired that the young man had been bitten in the mouth six months previously. The animal by which the bite was inflicted was found to have rabies, and a child bitten by it was treated at the Pasteur Institute and recovered. The case of the young man is remarkable on account of the long period which elapsed between the slight bite of the dog and the fatal disease of the man. There was no possibility that fear caused the illness, as neither the patient nor the parents suspected its nature until after death had occurred.

In this connection it is interesting to note that POTTEVIN says that during 1896, 1,308 persons were treated at the Pasteur Institute of whom 4 died, giving a mortality of 0·3 per cent., and making the total mortality since 1886 a fraction under 1 per cent. Bites in the face gave a larger mortality than wounds of other parts of the body. Since the establishment of the Institute 3,096 foreigners and 15,849 natives have been treated in the Paris institution. It will thus be seen that the number of persons treated last year is considerably below the average for the ten years in which the Institute has been open This is due, no doubt, to the establishment of similar institutions in other cities rather than to the fact that treatment for rabies is becoming unpopular.—*Med. News*

Treatment of Chronic Articular Rheumatism.

FOR persons affected with polyarthritis deformans Dr OTT recommends residence in a warm, dry place, such as Ischia or Algiers, which is sheltered from winds and has hot springs convenient for the hydriatic process of treatment which combine hot and cold baths to tone up the system which should also be strengthened by medicines such as iron, quinine, cod liver oil and a generous diet with meat as a foundation, together with eggs, fish, butter, cheese and vegetables, as well as plenty of milk and good drinking water, but alcohol and the carbohydrates should be much restricted, if not altogether excluded, and moral depression avoided; while the case should be carefully watched even long after convalescence and baths, which are useful, if not essential, adjuncts to treatment should be suspended as soon as symptoms of inflammation re-appear To do good treatment must be prompt enough to meet every stage of the disease. Thus fever must be surmounted by repose in bed, restricted diet and salol, antipyrin, acetanilid, phenacetin, &c., local pains and swellings by morphine injections, Priesnitz compresses, liniments, or salves containing opiates and severe swellings by puncture or by the elastic bandage. When the joints are swollen without much loss of motion or dislocation of the ends of the bones, external treatment, that will favor absorption is indicated, and tincture of iodine by itself or with ichthyol may be used to advantage in hastening absorption.—*N. Y. Med. Rec*

Serum Treatment of Leprosy.

DR. CARASQUILLA announced to the Academy of Medicine that he had discovered a new method of treating leprosy by injection of an antileprous serum. He declared that this treatment ameliorated the state of the patient and sometimes even brought about a complete cure. Unfortunately for the victims of this disease the predictions of Dr. CARASQUILLA have not been realised, and the cures announced have been only apparent. The error was entirely excusable, for leprosy is an affection which advances by successive stages which are often followed by prolonged periods of improvement, sometimes so marked as to seem like cures. If the treatment is given during this stage, one might attribute the cessation of the acute symptoms to the remedy employed, but the same improvement would have been noted had there been no intervention. The antileprous serum of Dr. CARASQUILLA is prepared by injecting serum from the blood of a leprous

subject into leprosy. It does not seem to possess any really beneficial action upon a subject of leprosy. This result has been shown when a patient submitted for a long time to its action, without any improvement except that which is ordinarily noted in the interval between acute attacks. This discovery has been announced prematurely, but there is no need to lose hope of finding an efficacious serum. However, it is requisite to seek it by other ways and means than those employed by Dr. CARASQUILLA.—*N. Y. Med. Rec.*

Recurrent Hepatic Fever.

FOR 18 months prior to her decease from cholæmia a woman, æt 49, had periodical attacks of biliary pain with fever and rigors, succeeded after a few days by intense jaundice in which the stools varied from normal to putty color but contained no stones. In most of the attacks (some of which were painless) there was no exceptional leucocytosis, and during a crisis *rapid* enlargement of the liver, which slowly resumed its normal size to 2 fingers' breath below the ribs and remained 'tender,' but between attacks she was a febrile though still slightly jaundiced.

Necropsy shewed the gall bladder atrophied and the liver changes usually consequent on total biliary obstruction, while the common bile duct, which contained colon bacilli, was blocked by a stone. FRIEDEL PICK (*British Medical Journal*) lays great stress on this leucocytosis whose absence in the intervals between the recurrent febrile and colicky attacks in a case of cholelithiasis he thinks sufficient proof of the absence of pyæmic or suppurative conditions, and that operation is not contra-indicated. He further explains that the marked diminution in the urea excreted is due not to replacement of urea by ammonia in the urine, as REGNARD imagines, but to decrease in the urine voided and to other urinary changes solely depending on the diminished amount of food and drink consumed.

Cattle Malaria.

CELLI and SANTORI propose the name 'cattle malaria' for a disease, which attacking the foreign but sparing the indigenous cattle of the Campagna, is characterised by fever, enlarged spleen, bloody urine, a rather high mortality and the presence in the red blood corpuscles of not easily cultivatable endocorpuscular parasites, which may be double or pear-shaped, and which SMITH of Texas named the *Pyrosoma bigeminum*.

This disease, which closely resembles human malaria, is most favorably influenced by quinine and strictly confining itself to malarial districts and seasons is communicable from one animal to another of the same kind and race. In severe cases the disease is accompanied by hæmoglobinuria—a neither constantly concomitant nor frequent symptom—and is identical with :—(1) the Texas fever of SMITH, (2) the cattle hæmoglobinuria of BABES in Roumania, and of KROGIUS in Finland, and (3) the cattle hæmatinuria of SANFELICE and LOI in Sardinia.—*Brit. Med. Jour.*

Nervous Vomiting.

LOOKING at this symptom as a purely functional disorder, produced by disturbances of the central and peripheral nervous system without external irritation or anatomic lesion, MEISEL notes that, occurring without any over-exertion, it is independent of the quality or quantity of the ingested food, being often absent after a difficultly digestible meal and present when only suitable food has been eaten. He suggests treatment being directed to the strengthening of the body, and found that menthol 1½ grain and sodii bicarb grs. viii., given three times a day, was very beneficial, though in severe cases suppositories of belladonna grain ½ and codein grain ½ had also to be given. Certi oxalas, the bismuth salts and large doses of alkalies are useful, and in the painful form papaverin combined with soda renders grand service. Painting the pharynx with 10th per cent. cocain solution cures some cases.—*Med. News.*

SURGERY.

Splenectomy for Rupture without External Wound.

Is very strongly advised by MR. C. A. BALLANCE, M.S., F.R.C.S., as the rhythmic contraction and expansion of the spleen clearly add to the difficulties and dangers surrounding the arrestment of hæmorrhage from it by any other plan than that of that organ when extensively injured, and proof of such is obtained by a history of violence and a large *fixed* dulness in the left flank. As a rule, the shock is very severe at first, and however great the initial collapse may be in slight, splenic ruptures, the bleeding may be quickly and permanently arrested by nature's method of coagulation, but when the injury is severe, the bleeding, which at first ceases, will recommence as soon as the patient has rallied, or a later period, and the remarkable feature of the bleeding, whether it be of the reactionary or secondary type, is its slowness. A large amount of blood may be lost at once into the peritoneal cavity, or the evidence of free fluid in the abdomen may not be forthcoming in 24 hours; but as in either case a patient with a belly full of extravasated blood is in immediate danger of death the operation *must* be completed in the shortest time possible and no method so certain or so reliable as extirpation of the ruptured spleen, yet whatever the plan of treatment adopted after extirpation, the patient will probably remain in a critical state for 14 days, when compensation for the abolished function by the spleen will take place slowly but surely and *pari passu* with the completion of the compensatory changes perfect health will be regained.—*Practitioner.*

Radical Cure of Hernia in Infancy.

FROELIGH, at a recent session of the Congrès Francais de Chirurgie, discussed the indications of the radical cure of inguinal hernia in infants, and described his method of operating in such cases. This surgeon holds that in children under 2 years of age inguinal hernia will usually be cured by the use of a suitable truss. Beyond this age spontaneous cure is an exceptional event, and an operation for radical cure is therefore indicated. In early life, if a hernia increases in size in spite of the application of a good truss, an operation should be performed, however young may be the subject. Such treatment, which is almost quite free from risk, will not only relieve the child of a permanent infirmity, but also obviate the physiological failure likely to be caused by a large hernia. The mortality, it is stated, is about 4 per cent and the relapses 6 per cent. The operation performed by FROELIGH consists in simple ligature of the neck of the sac, which is retained intact and without any dissection from the scrotal tissues, and in careful suture of the abdominal wall. In the discussion on this paper BROCA expressed his concurrence with regard to the indications for surgical treatment in young subjects, but at the same time held that it was advisable to deal more freely with the sac. In children as in adults there is no risk of peritonitis, and therefore, except with regard to the saving of time, no advantage can be gained by refraining from opening and removing the sac.—*Brit. Med. Jour.*

After-treatment in Cases of Abdominal Section.

TO combat shock, BODON, of Budapest, besides enemata or infusions of salt, employs subcutaneous injections of strychnine, not exceeding the dose of fifteen one-hundredths of a grain. Opium and morphine, he thinks, should not be used. Through the day on which the operation has been performed he gives the patient teaspoonful doses of very hot water (at 104° F.), which, he says, has a favorable action on the mucous

membrane of the stomach, besides increasing the bulk of the gastric contents and thus facilitating the act of vomiting. On the second day the patient is allowed bouillon, beef tea, and tea with milk; on the third day, strap with egg, scraped raw meat, and light to fowl. This is to evoke intestinal peristalsis. In eight or ten hours after the operation a rectal tube is passed through the anus, and this is repeated every four hours, for the removal of flatus. He considers it irrational to give morsels of ice to allay thirst; he prefers the drinking of warm water and the ingestion of salt. To prevent septic peritonitis, the occasional effect of migration of the *Bacterium coli*, he gives calomel before the operation. To avoid ventral hernia, he makes the incision along the middle of one of the recti abdominis muscles.—*N. Y. Med. Jour.*

Mortality of Tetanus with and without Antitoxin.

OWENS and PORTER, who report three fatal cases—two treated with antitoxin—and have carefully analyzed all the published cases in which the serum had been used, are of opinion that those cases of tetanus in whom symptoms appear before the sixth day will die in spite of any antitoxin treatment; but those in whom the symptoms are delayed beyond the second week will invariably recover, whether treated symptomatically or with tetanus antitoxin. The Medical Bureau of the Columbian Exposition (*Medical News*) who were singularly lucky with 202 cases of ugly punctures with rusty nails, not one of whom developed tetanus, declare it is better to prevent the affection than to place dependence on antitoxin serum after tetanus has developed. Their procedure was to (1) irrigate freely with sublimate 1—1,000 solution, (2) Trim the edges of the wound and (3) after swabbing it with 95 per cent., carbolic acid solution to (4) drain it if necessary, (5) dress it antiseptically and (6) advise *rest*.—*Jour. Amer. Med. Assoc.*

Uretero-Ureteral Anastomosis.

1 URETERO-URETERAL anastomosis is a perfectly feasible procedure. 2. Uretero-ureteral anastomosis, whenever possible, is far preferable to any other form of ureteral grafting, to nephrectomy, and to ligation of the ureter. 3. It should be done preferably by lateral implantation, or by oblique end-to-end anastomosis, though the transverse end-to-end or the simple end-to-end method may be safely employed. 4. The constrictions of the calibre of the ureter do not usually follow attempts at suturing in closure of complete transverse section of the duct. 5. Nephrectomy for transverse injuries of the ureter *per se*, is an unjustifiable operation. 6. Simple ligation of the ureter, to produce extinction of the functions of the kidney, is too uncertain to justify its practice. 7 Drainage is not necessary if the wound be perfectly closed and the tissues throughout are aseptic.—*N. Y. Med. Rec.*

Better than Skin Grafting.

THE following prescription will be found invaluable to restore the skin, where it has been destroyed by disease, in lieu of the painful and troublesome operation of skin grafting:—

R	Antifebrine	...	... 3 grains.
	Vaselin	...	... 1 ounce.

M. To be thoroughly rubbed up and applied topically.

I had a case of phlegmonous erysipelas of leg, which was bared of nearly all the flesh from hip to foot. After the flesh was restored, we were considering the subject of skin grafting, but just at that time, I noticed in the *Brief* this prescription, and was thereby saved all further trouble in the case. It answered the purpose.

I do not know whose prescription it was, or would give him merited honor.—E. B. HAMPTON, M.D., in the *Med. Brief.*

OBSTETRICS AND GYNECOLOGY.

Technique of Subcutaneous Symphyseotomy.

SECURE full dilatation of the cervix, if possible, without risk to the child. Have the urethra and bladder held to one side with a sound. Make the initial incision a little above the sub-pubic arch and under the elevated clitoris. Introduce the left index finger within the vagina against the posterior groove or ridge of the joint, up to the top. Pass a narrow tenotomy knife with the point close to the joint, up to within a half-inch of the top and under the overlying soft tissues. Substitute a probe-pointed bistoury and meet the left index finger with the probe over the top of the joint and work the blade through the joint downward, until separation is felt by the posterior finger. Have an assistant press the mouth of the wound and the tissues lying over the joint with a small piece of gauze. Deliver with forceps, if possible, and refrain from suprapubic pressure aiming to deliver the head through the cervix without drawing the latter down below the symphysis. Hold the bladder well to one side while pressing the public bones together. Pass a small strip of gauze into the prepubic wound and another against the cervix after irrigating, leaving both pieces exposed for easy removal, having restrained from stitching cervix or perineum. Introduce a soft-rubber retention catheter into the bladder, and leave it until sure the patient can voluntarily micturate. Dress the vulva with gauze and strap the joint with adhesive strips. Remove all the gauze in thirty-six hours and irrigate vulva and vagina twice a day, keeping the vulva carefully dressed between times.—AYERS in. *N. Y. Med. Rec.*

Twin Bearing and Prolificacy.

BEFORE the Edinburgh Obstetrical Society, at the December meeting, the above subject was under discussion. Dr. J. W. BALLANTYNE read a paper on the "Causation of Twins as Illustrated by some Clinical Histories." After giving the history of several cases he mentioned that of a woman who was one of a family of seventeen, no twins; one of her sisters had had triplets and another twins; she herself had had twenty-two children in eighteen confinements, *viz.*, four times twins and fourteen single births. In all the cases referred to there was good evidence to show that the twins were of the binovular or dichorionic kind. He mentioned the association of twin bearing and prolificacy and deduced that the daughters of a woman who has borne twins are usually highly prolific, and conversely the mothers of twins are usually the daughters of specially prolific women. He mentioned the theory that the ovaries of the twin bearer resemble those of the fetus in the great number of Graafian follicles they contain. Pleural pregnancies result from the simultaneous rupture of several ovisacs, and that this is a consequence of the existence of a relatively or absolutely large number of ova in the ovaries. Dr. HAIG FERGUSON mentioned the case of a woman who had seven children; in three years, twice twins and once triplets. Dr. JAMES RITCHIE referred to a mother who had borne thirty-two children; it had been mentioned in an application for life insurance and he had verified the statement.—*Jour. Amer. Med. Assoc.*

Hyperemesis Gravidarum and Salt in Food.

ANTONCHEVITCH sees a strict homology between uncontrollable vomiting of pregnancy, and vomiting from which animals suffer when deprived of salt in their food, being fed on albumen artificially deprived, as much as possible, of potassium and sodium salts. He has, therefore, dieted women suffering from hyperemesis gravidarum by taking care that their food contains at least a full proportion of salts.—*Canadian Prac.*

Curetting or the Galvanic Treatment of certain Uterine Hæmorrhages.

THE "pros" and "cons" of these two procedures are thus discussed by Dr. BAILY in the [illegible] February, p. 11

Curetting.	Galvanism.
Hæmorrhage will be controlled immediately, but other treatment will be required to cure the case.	Hæmorrhage after the first treatment, but repeated treatments will be necessary to prevent the hæmorrhage returning and to cure the case.
An operation for which an anæsthetic may be necessary, or patient may suffer pain necessary to have one or more assistants.	No anæsthetic necessary, as there is no pain. No assistant necessary.
Confinement to bed often necessary.	Confinement to bed not necessary.
Cause is usually removed by one or two treatments, but the uterus is often not reduced in size; therefore a tendency for the cause of the hæmorrhage to recur unless further treatment be given.	Cause removed more slowly but at the same time, by repeated treatments, the uterus is reduced in size, and there is no tendency for the cause to recur

In choosing between the two forms of treatment, the author considers that, broadly speaking, a uterus with considerable tone and contractile power will be best dealt with by curetting, while an atonic flabby uterus will respond more readily to galvanism. The more chronic the case, the more is galvanism indicated. Often the two procedures may be profitably combined, the galvanism following the curetting. In detailing the galvanic procedure the author advocates a low amperage—say, fifteen to twenty milliampères—the positive pole being intrauterine, and the negative electrode of large size being upon the abdomen. Frequency of application, at first every other day, afterwards once or twice a week for some weeks, according to the nature of the case. (An aluminium electrode of such a size as to fill the cavity of the uterus, and come into contact with every part of its surface, has been recommended) —*Treatment*.

Adhesion of the Female Prepuce.

BACON concludes from his observations and experience that preputial adhesions in the female may produce two different effects. (*a*) an irritation leading to masturbation and various neuroses; and (*b*) prevention of development of the glans clitoridis resulting in an eroticism. The reflex nervous centers of the child being less under the control of the inhibitory impulses than in the adult, peripheral irritation gives rise to nervous manifestations in the former which in the latter would have no effect. As preputial adhesions in the female are capable of setting up as grave nervous symptoms as the like condition in the male, BACON is of the opinion that every female child should be examined and the clitoris liberated at the same period that this or circumcision is undertaken in the male—that is, some time immediately following the separation of the navel.—*Med. Age.*

Treatment of Vomiting of Pregnancy.

GEORGEOT is convinced that the condition of nausea and vomiting of pregnant women is due to reflex contracture of the digestive tube; that such contracture is located either at the pylorus and the different portions of the small intestine, or more particularly in the iliopelvic angle of the colon, and that this painful contraction at this angle is a pathognomonic sign of reflex hyperæsthesia of the intestinal canal, of which the morbid symptoms vary from slight pain about the heart to simple nausea or to uncontrollable vomiting By the slow, light, progressive movements of massage, with the balls of the fingers, he is able to cause the passage of gas and liquid through this region with gurgling sounds distinguishable both to the physician and to the patient. Usually two or three séances of this light massage are sufficient to cause the vomiting to cease altogether, though the treatment may be repeated as often as necessary without fear of ill results. This procedure has been employed by the writer with complete success in a number of obstinate cases.—*Med. News.*

[illegible] Pathology, [illegible] Bacteriology

[illegible] Accessory Lobe of Liver.

[illegible] tumor, [illegible]

birth of [illegible] child in [illegible] as large as a [illegible] egg, just below costal margin of right side but did not increase much till 1896, when growing rapidly it became the seat of such severe pain that the patient, who was becoming more and more anæmic, submitted to operative measures for its removal by Dr. C. MARTIN, assisted by Drs. MARTINEAU, J. W. TAYLOR and J. F. JORDON at the Birmingham hospital for Women. The tumour, which was of a dark-greenish hue, was microscopically examined by Professor KAUFFMAN, who diagnosed it as an isolated diœtiose accessory lobe of the liver, presenting great differences of structure in different parts:—(1) Large granular polygonal liver cells separated from each other by bands of vascular connective tissue; (2) masses of broken down degenerated liver cells; (3) masses of granular pigment—remnants probably of broken down liver cells; (4) where liver tissue was absent there were cells (some suspiciously sarcomatous) of all sizes and shapes, confusedly jumbled up in a vascular connective tissue; (5) scattered hæmorrhages in degenerating areas appeared as red, soft areas, and (6) in no place was a definite cell-arrangement corresponding to a portal system; (7) the green color was probably due to bile pigment deposited by the abortive liver cells in the lobe; and (8) for some reason not clearly understood, this pedunculated accessory lobe that remained quiescent for several years, became the seat of degenerative changes and interstitial hæmorrhage.—*Brit. Med. Jour.*

Muscles of Respiration.

RUDOLPH FICK publishes an original paper on the muscles of respiration. In the first part he refers to the results of other investigators, especially in relation to the intercostal muscles. The last part contains an account of his own investigations. In the observations of other authors the internal intercostal muscles were dissected, and their action determined by direct inspection. In those of FICK all the costal muscles were left intact. He first examined the auxiliary muscles of respiration in the neck, and proved that they were absolutely inactive in normal quiet respiration, and only came into action in isolated, extraordinary, deep, sighing respirations, the result of their action being to elevate the thorax *in toto* Next the auxiliary muscles of respiration and the diaphragm were paralysed by severing their nerves in the neck, and the action of the abdominal muscles eliminated by dividing them. It was then found that the respirations continued in normal rhythmic manner, the difference between inspiration and expiration (apparently active) measured through a tracheal cannula being 60 mm. of water. These experiments, taken in connection with the geometrical deductions contained in the early part of the communication, proved that normal quiet inspiration is the effect of the contraction of the external intercostal and interchondral muscles, and that expiration is effected by the internal intercostal muscles. BERGENDAL and BERGMANN, of Stockholm, have arrived at the same results by similar experiments.—*Brit. Med. Jour.*

Toxine and Antitoxine: A New Theory.

THAT the antitoxic function is independent of immunity and after all may be a physical and not a chemical phenomenon, while the true existence of a preventive substance in the serum of vaccinated animals remains yet to be proved, is suggested by the exhaustive experiments of GAMALEWSKI and

[illegible] without their [illegible] antitoxic and (4) [illegible] cannot, like [illegible] animals, produce anti-toxins under the influence of [illegible] non-fatal injections of toxins. (5) Anti-[illegible] antivenomous serums can be used both for the production of passive immunity in man, as well as for the diagnosis of the serums which they oppose. (6) Certain chemical reagents, which destroy or profoundly alter the toxins do not modify the active substance of anti-toxic serums, nor does such active substance alter the toxins when mixed with them *in vitro*, though it appears to exist in the leucocytic protoplasm of vaccinated animals and acts as energetically on the leucocytes of fresh animals as do the antimicrobic serums. (7) Natural or acquired immunity cannot be due to the presence in the serum of a chemical substance since certain substances, such as bouillon and normal serum, with no specific action on toxins or the serums of certain animals vaccinated against various infections or intoxications can, when injected into fresh animals, act preventively as regards *other* infections or intoxications.—*Brit. Med. Jour.*

Simple Method of Estimating the Toxicity of the Urine.

PELLIGRINI has made a number of experiments which go to show that the amount of potassium indoxyl sulphate in the urine is a reliable index of the degree of its toxicity. He recommends the employment of PRIMAVERA's test for this substance, which is as follows: Pour from 4 to 5 c.cm. of urine into a test tube, and add slowly one-third the volume of pure concentrated sulphuric acid. Cool the mixture by dipping the end of the test tube into cold water. And 1.5 c.cm. of pure chloroform. Mix thoroughly, and then allow the chloroform to settle to the bottom of the tube. If potassium indoxyl sulphate is present in normal quantity, the chloroform has a light-blue tint. When it is present in excessive amount, the chloroform has a deeper blue color proportionate to the excess. Information regarding the degree of toxicity of the urine is of special value in cases of insanity in the causation of many of which auto-intoxication is now known to be a very important factor. PELLIGRINI believes that the increased toxicity of the urine in such cases is chiefly due to abnormal fermentation within the gastro-intestinal tract; it is important, therefore, to correct any disorder of digestion in these patients.—*Brit. Med. Jour.*

Difficulties of Bacteriological Diagnosis of Diphtheria.

SPRONCK says that (1) animal inoculation being indispensible in diphtheria (2) microscopic examinations of the colonies developed on serum do not suffice for positive diagnosis since (3) diphtheria is never produced by [illegible] bacilli (saphrophyte) which may exactly resemble [illegible] diphtheria morphologically but are quite distinct from [illegible] microbes. He is supported by C. [illegible] (Sem. Med.) in his contention of the absolute (4) [illegible] bacilli which turned out to [illegible] test.—*Brit. Med. Jour.*

[illegible] liver [illegible]

[illegible] grapes and [illegible] and blood purifying, but are not [illegible] of order, and green water-grapes, [illegible] of little food value.

Tomatoes yield higher nerve or brain food and waste without heat, but they should not be [illegible] in cold weather, as they are thinning and cooling [illegible] the higher nerve and muscle food but do not give stay.

Green figs are excellent food; but though they contain nerve and muscle food, heat and waste dried figs are bad for the liver.

Raisins are stimulating in proportion to their quality, but prunes, which afford the highest nerve or brain food and supply heat and waste, are neither muscle feeding nor good for those who suffer from the liver.

Pine kernels give heat and stay and serve as a substitute for bread, while blanched almonds give only the higher brain nerve and muscle food; but walnuts, hazel nuts and Brazil nuts give nerve or brain food, muscle heat and waste.—*Pub. Health Jour.*

Disinfection of Clothes by Heat.

FOR the complete destruction of organisms in the absence of spores, exposure to dry heat at a temperature of 130°C, for at least an hour and a half is necessary. KOCH found that spores of anthrax required for their destruction dry heat at 140° C. maintained for three hours. Dry heat acts by conduction, and therefore the temperature of the inner portions of a woolen fabric may be comparatively low, while the outer ones become scorched. To disinfect clothes in stoves and hot ovens is not only injurious but useless.

Moist heat at 60°C. kills all pathogenic organisms when free from spores. 100°C. (moist heat) quickly kills spores of most of the pathogenic bacteria. Saturated steam, when it penetrates into the interstices of a body at a lower temperature than itself, such as a blanket or coat, undergoes condensation into water, then occupying only a very small fraction of its former volume. To fill the vacuum thus formed more steam presses forward in its turn, yielding up its latent heat, and becomes condensed, and so on until the whole mass is penetrated. Steam condensed at 100°C. is the essential point in the disinfection of clothes by this method.

Superheated steam, like dry hot air at the same temperature, is both useless and injurious, for the following reasons: If steam at 100°C. be admitted into a chamber heated up to 115°C., no condensation occurs on the outer layers of these clothes, for the reason that the outer layers have become heated above 100°C.; so we get no germicidal action. But when the steam penetrates further into the fabric it meets with a temperature below 100° C and then condenses, consequently the inside becomes sterilized while the outer does not.

KOCH has found by experiment that exposure to a current of steam at 100°C, was the most [illegible] mode of disinfection. Dr. Parsons states that it may be considered to be established that the complete [illegible] of an object by steam heat at 100°C. for more than five minutes is sufficient for its thorough disinfection.

[The above statement that 115°C. dry heat will not sterilise is slightly misleading. For it is well known that such

a temperature sufficiently [illegible] germs. The real point is that [illegible] will not reach the [illegible] of clothing [illegible] [illegible] at 100°C., which kills both [illegible], provided, it is maintained sufficiently long.—Ed., *Post Graduate.*]

Shall Newborn Babies be Washed?

SCHRADER has investigated the effects of bathing new born children, in order to settle the point as to whether the healing of the stump of the cord is influenced by that process. The treatment of the stump was the same in all of the one hundred and fifty cases. It was dressed daily with sterile gauze and dusted with a mixture of one part of salicylic acid and four parts of starch. The healing of the stump and its separation took place in a more satisfactory way in those children who had been bathed. Dry dressings for the stump were found to be much better than oily ones, the fat preventing the proper drying of the cord. The weight of the bathed children increased more rapidly than that of the others, and no cases of eye infection from the water used in bathing the children were noticed.—*Scalpel.*

Comparison of Cigarette and Cigar-Smoking.

IN the *Virginia Medical Semi-Monthly*, SOHON discusses the injury received from smoking cigars as compared with that from smoking cigarettes. He emphasizes the harm of smoking before the body is fully developed. Locally, the effect of cigar or pipe-smoking is far worse than that of cigarettes. The cigarette smoker rarely has a chronically inflamed throat, as is invariably the case with cigar smokers. Cigarettes, unless used inordinarily, do not produce a cough. Few singers can smoke cigars, while many of them smoke cigarettes The difference seems to be in the choice of a profound intoxication at longer intervals or a transient impression which can be repeated oftener. He thinks that one can better judge of the dose of nicotin by the cigarette. He admits, however, that one is more likely to over-indulge in cigarettes on account of the greater satisfaction derived from inhaling.—*Med. News.*

Must Assert Privilege in Time.

REFERRING to the provision of the California code that a licensed physician or surgeon cannot, without the consent of his patient, be examined in any civil action as to any information acquired in attending the patient which was necessary to enable him to prescribe or act for the patient, the supreme court of that State says that the privilege is personal to the patient, and is waived when he calls the physician himself as a witness, or when he permits him to give his testimony without making any objection thereto. If the patient once consents to his testifying, he cannot, after the testimony has been given, revoke the consent, and ask to have it excluded. Such consent may be either implied or expressed further holds the court, in Lissak *vs.* Crocker Estate Company, where it maintains that there was an implied consent when the plaintiff permitted the witness to be examined in full by the defendant without any objection.

Hospitals not Liable for Negligence of Attendants.

IN a decision handed down by Justice COHEN in the Supreme Court he holds that hospitals are not liable for the negligence of attendants so long as it is shown that proper precaution has been exercised in the selection of such attendants by the hospital authorities. The case in which the decision was rendered was a suit brought by Miss HELEN D. WARD to recover damages from St. Vincent's Hospital for injuries received while she was a pay-patient at that institution. On one occasion she was placed in a bed between the sheets of which had been left a hot-water bag, and her leg was so badly burned by contact with the bag that operative procedures were necessitated. The judge finds that the accident was due to the single careless or thoughtless act of one of the employées of the hospital, and that the plaintiff has a cause for action against that employée, but not against the institution.—*Phil. Med. Jour.*

THERAPEUTICS AND PHARMACOLOGY.

[illegible] quantities of ozone cannot [illegible] It is of course a powerful oxidiser and the oxygen with which it is surcharged is soon absorbed. It is found, however, in distinct quantity in the pure air of the country and, as everybody knows, in sea air. Its occurrence in air is invariably connected with the existence of water generally in motion. Thus the wind blowing over the sea waves or over the waves of a lake, or the air in the immediate neighbourhood of a waterfall or spray contains a notable amount of ozone. Of course ozone must to some extent exert a purifying influence upon the air, but this can only be of importance when the ozone occurs in distinct quantity or when it is being constantly evolved, as over the surface of the sea. Doubtless sea air and mountain air owe their beneficial qualities to their purity which in some measure is due to the action of ozone. This fact has led to the devising of apparatus for the simple and easy production of ozone in hospitals and large buildings. It may not be generally known that a very simple and effectual way of bringing ozone into the house consists in first suspending moist linen sheets in a keen dry wind, and afterwards hanging them up in the house. The air in the room will thus become considerably charged with ozone and its presence will be easily detected by its peculiar smell, while a moistened starch iodide paper will instantly turn blue. Why ozone is accumulated in wet clothes in this way is not quite understood, but it may be due to the rapid passage of the oxygen in air over a large wet surface. It is not improbable that this interesting phenomenon plays an important part in the real hygienic cleansing of our linen articles of clothing. In big laundries when the not quite dry linen is brought in after having been exposed to a cold, dry air for a short time the smell of ozone is almost more than is agreeable.—*Lancet.*

Therapeutic Value of Spleen Extract.

THE *Edinburgh Medical Journal* contains the results of an investigation extending over two years and establishing the therapeutic value of this extract. Briefly, "it aids digestion and nutrition, increases the cutaneous activity, stimulates the glandular activity of the skin, etc." In the first class of cases chronic inertia, mental and physical, after a year's treatment the mental result was *nil* in a few, slight improvement in a few and recovery in two. The second class included recent cases of insanity due to physical exhaustion and the results were more prompt, first physically than mentally, the majority being improved and some completely restored. The effect on the pulse and temperature, the bowels and urine, is yet to be determined definitely; in some the appetite improved, in more the digestion; the weight curves varied, increase of weight being the rule; in all the women there was increase of hemoglobin and red blood cells with one exception; color and warmth of the skin with softness and elasticity was noted; mentally, exhibition of temper was noted in both sexes, more so in the males. The author had previously used thyroid extract with no success in these mental cases. He believes that "spleen extract, if less phenomenal in its effects than thyroid, is conducive to more lasting results, that it is surer, and still more important, exceedingly safe," but much smaller doses are sufficient to produce pyrexia, etc., especially after use of the etherial extract.

[illegible] Schwimmer, while agreeing that [illegible] the primary [illegible] any attempt being placed on the severity of the primary symptoms as a guide to the subsequent course of the disease, and holds that all cases should undergo the same medicinal treatment. He points out that the discovery of the organisms of the soft sore and of gonorrhœa has led to no improvement in the therapeutics of those disorders, and considers that the possibility of a bacterial cause for syphilis should not interfere with its present empirical treatment. With regard to the duration of treatment, with which the question of permissibility of marriage is bound up, Schwimmer quotes two cases in which, after prolonged treatment and freedom from symptoms, patients were allowed to marry, no infection of the wives took place, and each had two healthy children. Nevertheless each developed eight years after infection further syphilitic mischief, in one case affecting the testicle, in the other the periosteum. He concludes that the most prolonged treatment (three years Fournier, five years Neisser) cannot absolutely protect against relapses. As such lengthy treatment is very depressing both physically and morally, he considers two years enough, but does not recommend marriage till the end of the third or fourth years.—*Brit Med. Jour.*

Tricycle for Graduated Exercise.

The fall in their bank accounts has made many of the American doctors complain bitterly against the great popularity of the bicycle as a therapeutic measure (*Med. Age*); but Martin Siegfried (*Dent. Med. Week.*) is high in praise of cyclotherapy in cases of weak heart and joint stiffness. He seats his patients (propped up if necessary with a back support) on a specially constructed tricycle whose treadles are adjustable to revolve in shorter or longer circuits For active exercise the patient propels himself along but for passive exercise the tricycle is pushed or pulled along so that the patient's lower extremities are involuntarily moved by the revolutions of the treadles on which his feet rest.

Therapeutic Brevities.

Chrysotoxin, the newly isolated principle of ergot, fully represents that drug and remains unaltered for years

Parachlorophenol mixed with equal parts of lanolin, petrolatum and wheat starch is a valuable application for lupus

Powdered nutmeg sprinkled on linseed meal poultices is very useful in treating boils.

A case of deafness of seven years' standing was recently relieved by removal of a plug of cerumen by syringing the ear with hot water.

Free emesis by ipecac saved the life of an eleven months infant, who was working in strong convulsions due to accidental poisoning by a goodly quantity of pyrethrum flower insect powder.

Eka iodoform, which is a mixture of paraform and iodoform, is extolled by Gottstein and Thomalla as being superior to iodoform in the antiseptic treatment of wounds. —*Pharm. Zeit.*

Unna finds that if the teeth are brushed with potassium chlorate *fortior ordo*, which resists internal medication disappears like magic while the mouth is rendered aseptic and the gums strengthened.—*Brit. Jour. Dent.*

According to Schroeder and Schmidt Dumont, the activity of arsenical depilatories is due solely to the oxide and sulphide of calcium they contain.—*Chem. Zeit.*

Allen and Kreiser think that the activity of rhamnus purshianus bark depends on *oxymin* and valerianic acid, but Francois holds that the acid is capable but valerianic acid.—*Rep. de. Pharm.*

[illegible] the Indian Medical [illegible], from the Chamber of Commerce have addressed the Government, advising the appointment of a Bacteriologist to examine the cases of plague in Calcutta and pending his appointment that a Committee, of medical experts, consisting of both official and non-official medical men, be formed to determine whether the disease exists in the city. The Government replied three days later on 16th instant stating that plague cases had been pronounced to be such by the leading medical men, official and non-official, in Calcutta, and their opinion has been confirmed by the independent scientific testimony of M. Haffkine.

Now, since it will be easily understood that these Societies knew that alleged plague cases had been pronounced to be such by leading medical men, and also that M. Haffkine had reported that the plague bacillus was present in such cases, it is plain that the reply of the Government, in merely reiterating these facts, does not expel their doubts either as to the reference of the medical men or the scientific testimony of M. Haffkine I think myself it would be a great mistake to appoint a bacteriologist and pit him against another. The old case of Simpson and Cunningham would again be repeated. It will be remembered that Cunningham stated that air bacilli had been cultivated by Simpson, and that they were non-pathogenic. But Simpson could have retorted that micro-organisms, when growing in artificial media, produced excretory products, the presence of which destroyed the virulence, and possibly Cunningham was under a deception through them. Be that as it may, the fact remains that able men held with Simpson that they were true cases of plague, and Dr. Weir, the Health Officer of Bombay, who could outweigh a hundred times the experience of Cunningham in plague cases, said, only the other day, that Simpson was right

The best way for Government would be to give instructions that seeing that the germ theory of disease is believed by many of the medical faculty, due place be given to the teaching of bacteriology in connection with physiology and histology, so that its doctrine may become familiar to students To make a specialist chair for bacteriology would be a great error, for it has only got its own place, among others, in medical science, while the other day this error was signalised by the absurd exhibition of leading medical men in Calcutta declaring, as provisionally true, the proposition that certain cases were plague cases depending upon the report of a chemist in Bombay.

The diagnosis of plague cases is evidently difficult, and the source of much difference of opinion amongst medical men, and the lesson to the Government is that only at least experts should be permitted to be the judges, and that any malicious falsehood said for report should be carefully examined before any visit or assistance be taken to the door of the reported suspected case of plague. The position of Mr. Ewart is invidious. He says in

[illegible] fare with the plague regulations. What they would like is not an opinion of medical men or a scientific testimony, but a proof that can be applied by many to the understanding of the multitude, and then the malicious heresy and the wicked lie will be extinguished.

Now I think the Government could carry out the idea of the Chamber as to proof. The proof could be an illustration of the logical method of difference, one of the forms of experimental enquiry.

I would suggest that experiments be conducted in Bombay, Allahabad, Hyderabad and Calcutta by two medical professors in each of these colleges—say, a Professor of Pathology and a Professor of Physiology, etc.

Each college select 20 healthy rats, keep them for four days, feed them and mark if they continue healthy. Then give 10 of these HAFFKINE'S prophylactic, watch and note phenomena, time is an element. Record the result. Compare the records of all the colleges. If they agree in harmlessness, then let the proposition be enunciated, that HAFFKINE'S prophylactic is harmless on rats, and by parity of reasoning, harmless on human bodies, for rats are attacked by plague and they are also the infection carriers of it.

Now comes the second step of the experiment. Allow the inoculated rats an interval after recovery, of, say, four days, so that the new conditions may be acclimatized.

Give to the 10 inoculated and the 10 non-inoculated rats an equal quantity and quality of plague virus. Watch the resulting phenomena. If 9 non-inoculated rats die then 90 per cent. mortality. If 1 inoculated rat die, then 10 per cent. mortality. If each pair of Professors find similar results, and if not, why not, then the proposition may be enunciated that HAFFKINE'S prophylactic is not only harmless but also a genuine prophylactic.

By such enquiry the conditions of logical proof would be complete, and the harmonious results of the records of the Professors would not be like a chain depending on the weakest link, but rather a cable rope which could be used to pull the ship of state.

What would be the result of this information upon the public? Why instead of men being murdered as inoculators, there would be a rush for it, and the firebrand of the masses would find his trade gone. This logical method of difference, which I have outlined, will either prove or disprove nothing else can and nothing else will satisfy.

The idea of Government that their officials should not show force in carrying out the plague regulations will not work. Such a concession is interpreted as cowardice, or being afraid, and emboldens [illegible]. It is not fair that the gentlemen of the Health Officer's Department, in carrying out Government orders, should not be protected by Government, either with [illegible] soldiery or

Civil Work House, Sealdah, [illegible] 1898.

HOSPITAL ASSISTANTS' GRIEVANCES: A SURE AND QUICK REMEDY.

To the Editor, "Indian Medical Record."

Sir,—A world of meaning not easy to put into correct English lies in the Hindustanee couplet which tersely but truly says:—

Wuqt-i-Zarurat choo nuzumul gurain
Dost bujrud nur-i shamshir tatr.

Which Truth (I do not know his real name, though his sentiments are quite in keeping with what we feel but dare not give expression to) has freely interpreted as—

He neither pity wins nor grace
Who nose lops off to spite his face.
To run amok in insane ire
Is from the grid into the fire
Godfatherless no hope to rise
Where int'rest soars while merit dies.
For want of faithful friend who'll share
Our lot and our afflictions bear.
Or back us in our time of need,
Ah! friends like that are scarce indeed
How wrong it be 'Red Tape' is right
It knows in unity lies might.
So says "you subs must not combine.
Memorials or Round Robins sign
Subordinates should not feel pain
And crushed with work must not complain
Whatever is, is for your good"
Perhaps! If bear we only could.
If brought to bay by out off flight
A worm will turn, a coward fight
And infant lizard try to bite,
But we are men who've suffer'd long.
We pray'd the pow'rs to right the wrong
Redress refused, can we believe
Seek ye shall find; ask to receive.
Is meant for us? We sought but found
Not rosy beds *more* thorny ground.
Response to 'pray'rs for rest' we made
Came greater burdens on us laid.

When we accepted service, the Government laid down a set of beneficial rules remarkable for their non-observance and promised to replace our mothers. If a baby is hungry or in pain, it cries because it cannot speak, and its mother immediately nurses it or tries her best to find out what ails it. Is our Government mother to considerate? Not by any means. She hands her responsibility over to a number of officials, who either from ignorance or wilful their legitimate work on [illegible] officials, as are the [illegible] wrapped up in themselves to pay the slightest attention to our troubles.

Strike are the order of the day. Suppose *all* the Hospital Assistants of the 'six commands' struck together for a single day even just to show how painful and really necessary their services would then prove to the [illegible] to disdain them? I think not.

In Military life the Hospital Assistant is a sort of all-round factotum of many and varied parts, who has to put up with impertinence from the doctor's menial establishment in addition to doing *all* the doctor's work (excepting signature of returns, indents, reports, &c.) as well as his own duties which are far from light.

Now while his H. A. is wearing his life out with work, all that the doctor seems to have to do to earn (?) his handsome pay is visit the dispensary, sign papers prepared for him without bothering himself to know *what* the papers are about, or seeing whether the reports, indents, &c. that he signs are free from mistakes; receive *dalees* (*i.e.*, presents of fruits, sweets, etc.,) from his subordinates on feast days or holidays; and render himself popular not with the soldiery but with the officers and their wives and families by excelling in matters of court, chase, sport and gallantry. If all go well, the H. A. gets neither credit nor thanks, but should fault be found with anything, God help the unfortunate Hospital Assistant who is immediately made the scapegoat of his superior officer's omissions.

In *Civil life* also the entire brunt of the work falls on the Hospital Assistant, who has also to secure the popularity of the Civil Surgeon by hunting up operation cases and in the official returns showing doubtful or untoward results as *cured*, *recovered*, etc. These many seem ugly assertions, but they can *easily* be verified by tracing up the further histories of untoward cases favorably reported on.

It is in rare instances only that the officer in medical charge of a regiment or district will attempt to do any part of his own work beyond signing papers, such as reports, indents, etc., and if the Hospital Assistant dares to complain of overwork or injustice, he becomes a 'marked man' peculiarly liable to fines, transfers and manifold annoyances, the reason for which he has no official right to ask or demand, and his persistence for redress is usually rewarded by "ignominous dismissal"—Dangers the *dalee-wallahs* are immune against.

We have memorialised in vain. We have waited with the waiting of despair for relief that seems never to come, as our immediate rulers seem apathetic or wilfully deaf to our prayers. So much so that we must take the remedy in our own hands and strike throughout the length and breadth of India and 'hold out' as did the bhistees, dhobis, etc., till we obtain redress.

Yes! Brother Hospital Assistants, we *must* work together and strike simultaneously, *not* with seditious clamour or mutinous violence, but with a calm set purpose in which all creeds and caste forgotten in our common grievance, we shall still firmly yet respectfully shew the Government wherein we are mercilessly and unjustly trodden upon and urge for redress.

Unity is strength, and until we do combine, our case is hopeless. The *Indian Medical Record* is always ready to help us. Brethren, see to it before it is too late. Prepare your various griefs in tabulated form, each suggesting the most feasible remedy; forward your papers to me through the *Record*, and I will gladly do my best to draw out a *rational* scheme for your approval and our submission to the Government for kind and favorable consideration, and if the first appeal for recognition of our services and merits and the [illegible] private confidential (!?sic.,) reports be not accepted let us go on strike 'as one man' and firmly yet respectfully remain on strike until we gain our objects. Let there be no back sliders, and above all neither violence, vituperation nor seditious cavillings is the sincere advice of,

Yours &c., A VICTIM OF OFFICIAL SUPERVISION.

—:o:—

MEDICAL SUBORDINATE COMMISSIONS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The full force and significance of the ludicrous paradox embodied in the above title is best appreciated by those who having snapped at the bait, now feel the sharp point of the hook it conceals; but as, like so many more practical jokes, it recoils upon its authors—a very Nemesis to the pettiness that conceived and perpetrated it, the victims are not the only ones that should feel keenly the ridicule and humiliation of the position; and in this connection it passes comprehension why this initiative of a protest against it should have been left to the recipients of this questionable honor.

I have already touched on the subject in a previous communication that appeared in the last issue of this journal and might enlarge on it *ad nauseam*; but being pledged to a justification in greater detail of the threefold objection to a continuance of the farcical parody, and the reasons that militate against its acceptance as the coping-stone of our legitimate aspirations, I must hurry on, having to content myself even so, with mere skeleton indications.

First then, from the Commissioned Officer's point of view—

It is an eyesore, calculated to call forth in him—well, certainly not the most admirable traits in human nature; it is derogatory to the dignity of Her Majesty's Commission, particularly in India, by engendering the mistaken policy that misses no opportunity of holding it up to ridicule and belittling it with scorn; and finally its very existence is a source of mischief, of which the two former objections are but the necessary sequels. Are these not weighty reasons enough? Need more be advanced on the first count?

I pass on to the stand-point of the poor scarecrow himself—the central figure and victim of this huge official humbug!

Does he, pandering to the prejudices and foibles of the class into which he has been projected, seek to obviate any embarassment on their part, and to remove well-known obstacles to the social advances he now expects from them, by severing himself from all former associations and materially enhancing his expenditure, he is equally dubbed the presumptious snob and up-start by both sides. Does he, on the other hand, thinking himself wise in his generation, decide to play to the gallery, by an assumed passivity to the acceptance of his new dignity, he may be treated with lofty patronage, if

[illegible] to accept such [illegible] tolerated, and [illegible] the [illegible] humour, and condescending [illegible] which he is associated [illegible] considered a living [illegible] greatness being thrust upon [illegible] of appreciating its worth—a typical example [illegible] the gold ring in a pig's nose. In fact for him it is the old story of the unfortunate man, his son, and his ass, who strive how he would, could do nothing right. Too late he realises he has mistaken this will-o'-the-wisp for the friendly light that would lead to shelter and comfort at last, after all his weary plodding.

Bear on with me now to consider the effect on the service to which the individual may belong. Limiting, as it does, its aspirations, crushing out all encouragement towards improvement, stifling all emulations, and thus supplanting a vital esprit de corps by a lethargic sense of doomed degradation—of existence under a bann—a bann the more galling that it overshadows his posterity—a veritable brand of CAIN—without one cheering ray of hope in the dismal vista, the future stretches before him and his children—aye! and his children's children: the weary, monotonous and ceaseless round of toil and moil; to rise unrefreshed from the feverish slumbers of a mental pandemonium, engendered by these reflections, only to be confronted with the prospect of being no nearer the end of these ever circling, ever recurring exertions on a treadmill, until the merciful hand of Time—as in the case of the born slave—blunts the perceptions and sensibilities, the cravings and yearnings after a better state, a greater degree of bodily comfort—not so much for himself as for his children—, and a freedom from the thraldom that will surely eventuate in a return to little better than the level of the brute creation or savagery—what effect, I ask, can all this have on the community and through it on the individual, but a progressive deterioration, mental, moral and physical, the first symptoms of which unfortunately are but too apparent already in the listless apathy that characterises his drudging career? Better far, that discarding all false notions, you take to the spade and plough—the drudgery at all events need not be perpetual—and side by side with the Aryan you affect to despise, learn at least to acquire independence, a love of freedom—the best attribute of manhood,— and to appreciate the advantages that hope and emulation confer on your exertions, in earning honestly at the sweat of your brow or by your innate abilities, that degree of comfort and happiness you may attain to—your motto ever, as you climb, Excelsior! I put it to you now, are you content to thus put yourselves in a false position, to allow yourself to be scoffed at, and by the acceptance of this dole, to acquiesce in its being taken for the admitted gauge of your hopes and aspirations: to move about with a consciousness that your presence is always provocative of a suppressed titter—none the less felt because it is not a frank and honest laugh? If so, there is nothing more to be said on the subject, as it concerns you personally, for though you may allow that your children might protest against their future being thus fettered, you would probably hold that they must work out their own salvation when their time comes. To those, however, who think otherwise my appeal is directed, that [illegible] the fable of the [illegible] dog, they did not [illegible] of the foolish dog [illegible] his bone in grasping at a shadow, but committing [illegible] [illegible] and [illegible] and [illegible] the [illegible] of the [illegible] they belong to, by asking that [illegible] of the Commission be no longer the monstrous [illegible] it is, but a [illegible] translation to that coveted position, entailing immediate removal from all subordinate duties, and affording the opportunity of commencing a fresh career, with renewed vigour and a lighter heart, even so late in life: so that they could look back with pride, and feel no sense of humiliation in acknowledging connection with a service that offered so high a range of possibilities to ability and merit with such far-reaching results. Think of how in after life your children to whom your sacrifices have ensured a respectable and comfortable start in this world, will feel no shame in acknowledging you publicly; and bless you for having removed a stigma that is an effectual bar to their further advancement. In asking for this reform you are advancing no new or startling demand; but merely the extension of an existing system, the results of which must be beneficial to all concerned, and tend to more harmonious working in the contentment and satisfaction of a useful and not unimportant body of Her Most Gracious and Imperial Majesty's humble servants. A precedent even, in the application of the principle to Military Medical Subordinates, is not wanting, for we have but to point to the Army Hospital Corps in Europe for one, which was instituted by no less a personality than H. R. H. the Duke of Cambridge himself.

Yours &c., NO BRUMAGENE.

HIGHLY PLACED ANGLO-INDIANS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—In sending you a few additional names of members of our community who have done well for themselves, I embrace the opportunity of enclosing you an extract which I made from a letter of a correspondent to the *Civil and Military Gazette* the other day on the "Anglo-Indian Question," as I am sure your readers will be glad to read it, and I also think it might very properly find a place in your valuable journal under the heading of "HIGHLY PLACED ANGLO-INDIANS":—

1. Thomas Taylor, Civil Sub-Judge, Ratnagheri.

2. Henry Ingle, Deputy Collector and Magistrate, Karwar.

3. James David Wilson, Assistant Engineer, P. W. D. Karachi (Sind).

4. William Patton, Senior Deputy Collector, Sind Commission, Assistant Deputy Commissioner of Paper Currency, etc.

5. Cornelius Dewey, District Traffic Superintendent, G. I. P. Railway, Bombay.

6. John Henderson, Chief Superintendent, Ralli Brother's Agency, Karachi.

Here is the cutting from the *Civil and Military Gazette*:—

"Men like the Kellners, Belchambers, Tweedling, Hollingbery, Fisk, Chaine, Tyler, Sweetenham, [illegible], Macpherson, and a host of others I could mention, are all descendants of Englishmen, who [illegible] be

[illegible] and men who bore big names, which stand high in the estimation of men. One Kellner became afterwards Sir George Kellner, K.C.M.G.; another, Edwin W. [illegible], was Accountant-General of the Punjab; two [illegible], both Registrars of the High Court, Calcutta; [illegible] Fink, Deputy-Accountant-General of Bengal, another Fink, Registrar of the High Court; and a third Fink is a Surgeon-Major in one of Her Majesty's Regiments, while a few are leading lawyers, Clarke, Deputy Accountant-General, Bengal; Tyler, afterwards Sir John Tyler, M.D., K.C.I.E., Kennedy and Macpherson family, Generals and Major-Generals in the Army; Sweatenham, Superintending Engineer: the Carpenters, one is in the Covenanted Bengal Service; Twalling, Registrar, Financial Department, Calcutta, one is a judge and another is a leading lawyer, and Hollingberry rose to a high position in the Government service, and was drawing Rs. 2,000 a month; John and Hugh Cooke, the former was Accountant-General of the Punjab; Charles Dissent and Major Theodore Rivers Howe, are all men who have distinguished themselves, and held high positions in the service of Government, and none of them were "Varsity" men, but mostly all boys educated in India."

Yours &c., W. H. T.

KARACHI 16th May 1898.

COMPULSORY SEGREGATION IN INDIA: CHANGE OF GOVERNMENT POLICY.

To the Editor, "Indian Medical Record."

SIR,—We have been all along strongly protesting against the most cruel segregation rules of Government which does not allow patients to take with them to the Isolation hospital, any of their relatives. We owe thanks to Sir JOHN WOODBURN, our present Lieutenant-Governor, who has at last kindly heard our prayers and changed the stringent Segregation Rules. Remember what Mr. RISLEY said in answer to a question put by the Hon'ble Babu GURU PRASAD SEN with reference to the forcible removal of Mrs. CAHOON's daughter to the isolation hospital. He said:—"It is for the Superintendent of the hospital to determine whether relatives can be allowed to attend on such patients. Where the outbreak is severe and the hospital is crowded such an arrangement would obviously be impossible." (Vide *Calcutta Gazette*, 24th February 1897). And see now what our present Lieutenant Governor says:—"Whenever segregation is necessary, it will be carried out with the strictest regard to the feelings of human nature. No wife will be separated from her husband, no husband from his family, and the better classes will receive every encouragement in the arrangement of private hospitals in their own compounds or in garden houses in the suburbs to which they can remove themselves and their families in case of attack." (Vide *Calcutta Gazette*, 4th May 1898). Now what is the cause of this change of policy? Surely the most bitter experience of Bombay and lately of Calcutta.

If Government had not given this assurance, surely all the natives, rich and poor, educated and uneducated, of Calcutta, would have left the town to a man. The tremendous exodus of natives from Calcutta is not owing to the fear of death from plague, but the fear of separation from their relatives during the last hours of their existence. Now Government should recognise once for all, that in India compulsory segregation of patients, unaccompanied by any of their relatives, is not possible under any circumstances.

Yours &c., HARA [illegible] SEN, V.L.M.S.

BAIGANI, 8th May 1898.

THE CALCUTTA GENERAL HOSPITAL.

To the Editor, "Indian Medical Record."

I

SIR,—I think many of your Calcutta readers will be glad to learn that Dr. PILGRIM has been appointed to succeed Dr. CROMBIE as Surgeon-Superintendent of the Presidency General Hospital. Though a junior officer, Dr. PILGRIM has had a long connection with this hospital and has won the confidence of the public as a good physician, while his recent work at the South Suburban Hospital proves him to be a good surgeon as well. If I remember rightly, you disapproved of Dr. RANKING's temporary occupation of Dr. CROMBIE's place, but I feel sure you will accord your approval to the present arrangement which makes Surgeon-Captain PILGRIM, M.B., Lond., the official head of the Presidency General Hospital.

Yours &c., M.B., C.M., Glas.

(We congratulate Dr. Pilgrim on his well deserved promotion and wish him great success.—ED., *I.M.R.*)

II

To the Editor, "Indian Medical Record."

SIR,—Once again your protests and claims for the public good have been vindicated. Surgeon-Lieutenant-Colonel RANKING, the distinguished linguist, has been relieved of his duties in the Calcutta General Hospital, and Surgeon-Major PILGRIM has been permanently appointed Superintendent of this Hospital. Dr. PILGRIM comes into office under the new rules. He will be debarred family practice and will receive Rs. 1,800 as a monthly salary—not a penny too much for a promising man—but the Government allows him the concession of being a consultant. That you were not singular in your protest regarding the temporary appointment, is proved by the fact that the Bengal Chamber of Commerce urged similar objections to your own, and now the Bengal Government has graciously given way to public opinion and matters are righted. The continued protests of the *Record* concerning the anomaly of allowing State-paid doctors from engaging in private practice is also bearing fruit, as may be seen by this new appointment. Backed by the non-official European community (many of whom, though laymen, are I believe, subscribers to your journal) the *Record* has achieved a signal victory.

Yours etc., L. R. C. P. & S. Edin.

HIGHLY PLACED ANGLO-INDIAN MEDICOS.

To the Editor, "Indian Medical Record."

SIR,—To your list of highly placed Anglo-Indians of the medical profession in the Madras Presidency will you kindly add the following names:—

Surgeon-Major J. L. Van Geyzel, M.D., F.C.S., F.I.C., &c.,

Professor of Chemistry in the Medical College, and Chemical Examiner to Government.

Surgeon-Captain T. Foulkes, I. M. S.
Surgeon-Captain A. E. Berry, I. M. S
Surgeon-Lieutenant C. Webster, I. M. S.
Surgeon-Lieutenant C. H. S. Lincoln, I.M.S.

The last three officers received their medical education in Madras, two of them taking the L. M. & S. degree of the local University.

Dr. Oliver, M.D., Medical Officer to the South Indian Railway.

Dr. G. N. Coombes, Medical Officer to Cochin Government.

Dr. H. H. Marshall, Health Officer, Bangalore.

Dr. Trip, once a Military Assistant Surgeon, and now Assistant Director-General of H. H. the Nizam's Medical Service, and Lecturer in the Nizam's Medical School.

Surgeon-Captain and S. A. S. B. Hollingsworth, I.S.M.D. Professor of Botany in the Medical College, and Examiner of the same to the Madras University.

This officer is the leading botanist of Southern India, and on his retirement from the service shortly, it will be rather hard to find one to fill his place either from the I. M. S. or elsewhere.

Assistant-Surgeon S. E. Falconer, I.S M.D., L.R.C.P. &c., Professor of Midwifery to lady students, Medical College, and Resident Surgeon, Government Maternity Hospital, Madras. As a Gynæcologist and Obstetric Physician, there is none to equal this M. W. O in the Presidency. He commands a very extensive practice.

There are also some officers in the A. M S, but I think it best not to publish their names.

Yours &c., L. M. & S. (Madras)

———.o:———

THE SUN LIFE INSURANCE COMPANY OF CANADA.

TO THE "EDITOR, INDIAN MEDICAL RECORD."

SIR,—The following letter demands publication in the *Record* :—

INDIAN MEDICAL RECORD OFFICE
Calcutta, 50 Park Street. 16th May 1898

D. F. WADIA, Esq.,
57, Esplanade Road, Bombay.

DEAR SIR,

Your letter of 12th May to hand yesterday (Sunday) 15th May. I beg to reply thereto to-day, 16th May, as follows :—

1. With regard to your inference that the "Correspondence" article in the *Indian Medical Record* of the 16th April, having reference to certain enquiries made by a medical officer over his own genuine signature, is malicious and libellous in effect towards the Sun Life Assurance Company of Canada, on whose behalf you address me, I absolutely deny any such intention.

2. The letter was published in good faith and for the public good.

3. If your clients consider that anything in connection with the article or letter in question may be construed in such way as to have any evil or harmful effect in the Sun Life Assurance Company of Canada I hereby express my regret that the article was published, and I withdraw any statement in such article that might be so construed.

4. I hereby demand, not only in the interests of the medical officer who publicly placed his interrogations concerning the Sun Life Assurance Company of Canada in the columns of my journal, but for the public good, a complete answer to such interrogations from your clients, with a view to publishing the same in the next issue of the *Indian Medical Record*, together with this letter.

Yours faithfully,
JAMES R. WALLACE, M.D., F.R.C.S
Editor and Proprietor, "Indian Medical Record"

———:o:———

TO CEYLON AND SINGAPORE READERS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—May I ask, through the medium of your widely read columns, if some of your Ceylon and Singapore readers will have the kindness to furnish me with some information regarding the incidence of malarial fevers in those places, which I stand very badly in need of.

I want some exact information as to the months in which malarial fevers are most prevalent in Singapore and in the south and north of Ceylon.

If possible, the exact number of admissions for every month in the year, or for a series of years, for intermittent fever, out of a population of given strength, either European (soldiers) or native, or preferably both.

Yours &c., R. R. H. MOORE, M.D.
Surgeon-Major, A.M.S

DARJEELING.

(We commend Dr. Moore's request to our readers in Ceylon and Singapore and we trust the information sought will soon be forthcoming.—ED, *I.M.R.*)

Book Reviews & Medical Trade Notices.

THE MEDICAL ANNUAL AND PRACTITIONERS' INDEX. A WORK OF REFERENCE FOR MEDICAL PRACTITIONERS.

(Publishers : JOHN WRIGHT AND CO., Bristol, SIMPKIN, MARSHALL, HAMILTON, KENT & Co., Ltd., London ; &c., &c, Pages xcii—847. Sixteenth year, 1898.)

WHILE deserving to be warmly congratulated over their sixteenth annual issue, the publishers may rely upon receiving the continued support, approval, and encouragement of the medical world. The volume before us abounds in original articles containing information which it would scarcely be possible to obtain from other sources, and is illustrated by elegant tinted plates. In addition to such useful sections as the lists of the books of the year, medical periodicals, new inventions, &c., a distinctly novel feature is the report of the legal decisions which affect the medical profession directly or have reference to the question of the public health. Altogether, the Medical Annual for 1898 should go a long way in maintaining the very high position already reached by its predecessors.

ELEMENTS OF LATIN FOR STUDENTS OF MEDICINE AND PHARMACY.

By George D. Chapman, A.M., M.D.
Teacher of Latin and Greek in the St. Joseph (Mo.) High School; Formerly Professor of Latin and Greek in the University of Omaha.
and Hiram H. Bice, A.M.
Instructor in Latin and Greek in the Boys' High School of New York City.

5¾ x 7½ inches. Pages xii-242. Flexible cloth, $1 25 net. (Publishers: The F. A Davis Co., 1914-16 Cherry St., Philadelphia; 117 W. Fourty-Second St., New York City; 9 Lakeside Building, 218-220 S Clark St., Chicago, Ill.)

There are certain principles of Latin etymology and construction which become essential to an intelligent use of medical terminology, and these principles are presented within the briefest possible compass in the work before us. The value of the publication is no doubt enhanced by the fact of its joint authors being Professors of the Latin language, while one of them is a duly qualified Doctor of Medicine.

THE POCKET FORMULARY FOR THE TREATMENT OF DISEASE IN CHILDREN.

By Ludwig Freyberger, M.D., M.R.C.S.E., &c
(Rebman Publishing Co., Ld., London)

This work contains in a concise and handy form all the information which may be required by the busy practitioner and the senior medical student on the treatment of children's diseases by drugs. Of the latter an alphabetical arrangement is made, while their properties, uses, doses, incompatibles, therapeutics, connection of taste, formulæ, &c., are set forth separately and clearly, immediately following the name of each drug This arrangement, a really excellent one, has been made with the object of facilitating rapid reference

The little work is elegantly bound in padded black morocco, with red edges, and should be in the pocket of every practising physician

RHEUMATISM AND ITS TREATMENT BY THE USE OF THE PERCUSSO PUNCTATOR

By J. Brendley James, M.R.C.S.E
(Rebman Publishing Co., Ld., London.)

This small treatise is a second edition of a very valuable paper read by the author at the Annual Meeting of the British Medical Association, held at Cardiff some years ago

He is the inventor of an instrument termed the *Percusso-punctator*, whose efficacy, having since its invention been "unchallenged," renders the author more satisfied with it than ever. Chapters are added on the treatment of sciatica and lumbago by the injection of sulphuric æther, and on the prevalent nervous disorders of the day.

INJURIES AND DISEASES OF THE EAR: BEING REPRINTS OF PAPERS ON OTOLOGY.

By Macleod Yearsley, F.R.C.S., &c. &c.,
(Rebman Publishing Co., Ld., London.)

This little work is a collection of valuable papers which have appeared before, principally in *The Medical Times, and Hospital Gazette*, &c., and are now re-printed and partly re-written. They deal respectively with artificial membrana Tympani. Foreign bodies in the ear and their treatment; What not to do in the diseases of the ear; The use of the Pneumatic Aural Speculum; The care of the Ear in Children; and Aural Reflexes. These are considerations of the highest importance in connection with the important feature of the human ear, and are clearly and concisely dealt with in this little book under review.

THE LONDON AND LANCASHIRE LIFE ASSURANCE CO.

From the thirty-fifth annual report and quinquennial valuation of the above Company, up to the end of last year, we glean that the new assurance amounted to 3,446 for £1,166,775, and deducting declined and not completed £254,286; the policies issued were 2,870 for £912,489, giving a new premium income for £35,600, there being an increase after some deduction of 13,092 over the previous year. The claims by death amounted to £96,080, and matured endowments to £15,668, making a total sum of £111,699. The total increase was £279,316, including £40,500 After all payments the invested funds have been increased by £80,790 and now stand at £1,238,849. From all these figures it is apparent that this old and well-established firm has a brilliant future before it, the year's operations being all that can be desired, and the funded capital of the company able to meet any and all requirements made upon it

WINE OF COD LIVER OIL

When consumption, scrofula and other wasting diseases assail the body, or when unhealthy conditions imperil nutrition, cod liver oil peptones and iron separately or combined are always recommended by the profession, but as patients do not always take kindly to these medicine in their ordinary forms, Messrs. Frederick Stearns & Co, whose preparations have honestly earned a world-wide fame, perfected a pleasant tasting *wine of cod liver oil* (each ounce containing 4 grains of peptonate of iron and the alkaloids and other active principles of 2 drachms of *pure* cod liver oil) whose virtues they put to a long series of *crucial* clinical tests by the hospitals and leading physicians of Detroit, before they offered the wine to the public and medical profession at large.

HÆMOFERRUM

In the treatment of anæmia, which depends on a deficiency of hæmoglobin, iron heads the list of remedial agents. The question arises which is preferable an organic or an inorganic preparation of iron. Common sense decides for the former, which is less irritating to the alimentary canal and is better assimilated by the system. And what better than hæmoferrum, which is obtained from the red-blood corpuscles of healthy oxen and in which the iron exists in the form of a natural proteid, just as it exists in the blood itself? Nothing. Only see that you get what you want. Any respectable chemist will supply you with genuine hæmoferrum in either the liquid or solid forms, prepared by Messrs. Frederick, Stearns & Co.

VIBRONA.

FLETCHER, FLETCHER AND Co., 469, HOLLOWAY-ROAD, N.

VIBRONA is a standard preparation and consists of a delicate, pleasant-tasting red wine containing an exact and constant quantity of the principles of cinchona bark. Moreover, these principles are presented in such a form as to obviate the distressing results frequently following the administration of ordinary cinchona extracts well known as cinchonism. This result is secured by combining the cinchona principles with bromine. Our analysis of the sample submitted to us confirms the claims made in its favor and in regard to its composition. The analysis was a follows: alcohol, by weight 18·48 per cent., by volume 22·64 per cent., equal to proof spirit 39·68 per cent., and mineral matter, 0·26 per cent. The total alkaloidal constituents amount to nearly a quarter of a grain in two fluid ounces. The wine is stated to be examined at intervals with the view of maintaining its standard of strength. It is slightly but agreeably bitter to the taste. The wine was perfectly sound and free from sediment. As the above results indicate the wine as clearly a tonic preparation of a superior character. An interesting description of Vibrona, as well as other preparations, including a champagne, appears in a very neat and artistic *brochure* which has been drawn up and printed "for private circulation" by the above firm.—*Lancet.*

DIASTASE-STEARNS,

WHICH is put up in both the liquid and the dry form, is a carefully prepared diastase derived from the pancreatic juice of the pig. It is not a proprietory medicine, and the above name was given to it by Messrs. FREDERICK STEARNS and Co., to distinguish it from other brands of diastase on the market. A number of physicians, some exceedingly high in official life as clinicians, whose opinion is eagerly sought, bear testimony to the excellent therapeutic value of this preparation in helping the proper assimulation and quick digestion of food.

Government Medical Gazettes.

GOVERNMENT OF INDIA.

The services of Brig.-Surgn.-Lieut.-Col. W. McConaghy, M.D., I.M.S. (Bombay), are replaced temply. at the disposal of the Mily. Dept.

The services of Surgn.-Capt. C. M. Fleury, A.M.S., are placed temply. at the disposal of the Govt. of Bombay for employment on plague duty.

The services of the undermentioned officers are replaced at the disposal of the Govt. of Bengal :—

Surgn.-Capt. J. G. Jordan, M B., C.M., I.M.S. (Bengal).
Surgn.-Capt. J. T. Calvert, M B, I.M.S. (Bengal).
Surgn.-Capt. J. C. S. Vaughan, M B, C.M., I.M.S. (Bengal).

Surgn.-Col. G. Hutcheson, M.D., I.M.S (Bengal), is confirmed in the appt. of Admin. Med. Officer and Sany. Commr., C. P., from 9th April 1898.

Brt.-Surgn. Lieut. Col. Sir Alfred Swaine Lethbridge, M.D. K.C.S.I., has been permitted to retire from the service, 1st April 1898.

Surgn.-Col Dhanjisha Navroji Parakh, has been permitted retire from the service, 14th 1898.

Senr. Asst. Surgn., with the hony. rank of Surgn.-Capt., Daniel O'Leary, retired from the service, 21st September 1897.

Asst. Surgn. George Kirby, I. S. M. D. (Bengal), has been transferred to the pension estab.

The services of Surgn.-Capt. W. H. Gray, I. M S. (Bengal) are placed at the disposal of the Chief Commr., C. P.

The services of Surgn.-Major Narendra Prasanna Sinha, I.M.S. (Bengal), are replaced at the disposal of the Govt. of Bengal.

The services of the undermentioned officers are replaced at the disposal of the Govt of the N.-W. P and Oudh :—

Surgn.-Maj. G. H. Baker, I M.S (Bengal).
Surgn.-Capt. J. Morwood, M.D., I.M.S. (Bengal).
Surgn.-Capt. L. G. Fischer, I.M S. (Bengal).
Surgn.-Capt. J. M Crawford, M.B., C M., I. M. S. (Bengal).

The services of the undermentioned officers are replaced at the disposal of the Govt. of the Punjab :—

Surgn.-Capt. W. B. Clark, I.M.S. (Bengal).
Surgn.-Capt. A. Coleman, I.M.S. (Bengal).
Surgn.-Capt. A. W. T. Buist-Sparks, M B, I M. S. (Bengal).

The services of the undermentioned officers are replaced at the disposal of the Govt. of Madras :—

Surgn -Capt. C. Donovan, M D., I.M.S. (Madras).
Surgn.-Capt. Robert King Mitter, M.B, I.M.S. (Madras).

The services of the undermentioned officers are placed temply. at the disposal of the Govt. of the N.-W. P. and Oudh :—

Surgn.-Capt. H. Austen Smith, M.B., B.S., I.M.S. (Bengal).
Surgn.-Capt. G. T. Birdwood, M B, B S., I.M.S. (Bengal).
Surgn.-Lieut. J. S. Stevenson, I.M S. (Bengal).

BENGAL GOVERNMENT.

Asst. Surgn. Hira Lal Dutt to do supy. duty, Med. Coll, Hosp, Calcutta, from 5th May 1898.

Asst. Surgn. Kunjo Lal Sanyal, Teacher of Medicine and Midwifery, Dacca Med. School, leave for two months in extension of that granted to him, 24th March 1898.

Asst Surgn. Chuni Lal Nandi to do special duty at Howrah, from 1st May 1898.

Surgn.-Capt. C. R Stevens, on return from mily. duty, to be a Resdt. Med. Officer, Med. Coll. Hosp., Calcutta.

Surgn.-Capt. C. R. Stevens, Resdt Med. Officer, Med. Coll. Hosp, is apptd to act as Profr. of Physiology, Med. Coll. Hosp., Calcutta.

The services of Miss M. M. Traill Christie, M.D., an Inspg. Med. Officer, Chauna Station, E I. R, are placed at the disposal of the Chairman of the Corporation of Calcutta for employment on plague duty.

Asst. Surgn. Benode Behary Ghosal to do supy. duty, Med Coll. Hosp., Calcutta, from 12th May 1898.

Asst. Surgn. Kali Nath Banerjie, Katihar Ry. Hosp., E. B. S. Ry, leave for fifteen days, in extension of that granted to him, 14th March 1898

Asst. Surgn. Sarat Chandra Sur held med. charge Krishnagur Charitable Dispy. from 1st to 7th May 1898.

PUNJAB GOVERNMENT.

The services of the undermentioned officers are replaced at the disposal of the Govt of the Punjab :—

Surgn.-Capt W. R. Clark, I. M S. (Bengal).
Surgn -Capt. A. Coleman, I. M. S. (Bengal).
Surgn.-Capt A. W T. Buist-Sparks, M.B., I. M. S. (Bengal).

Hosp. Asst. Ghulam Muhammad, Jampur Dispy., 16th April 1898.

Hosp. Asst. Nonith Ram, Rai Sahib, to Dera Ghazi Khan Dispy. from 15th April 1898.

Hosp. Asst Hasham Ali was placed on special plague duty from 1st May 1898.

Hosp. Asst. Muhammad Jan, Dharmsala Dispy., was placed in charge of the Jail and Police Hosp. from 17th April 1898.

Asst. Surgn M Courtney resumed charge of his duties as Apothecary to the Mayo Hosp., Lahore, 5th May 1898.

Hosp. Asst. Rabha Ram, Lahore Dist. Jail, to Amritsar Ry. Stn. for duty from 8th to 17th April 1898.

The following Hosp. Assts., doing genl. duty, Mayo Hosp., Lahore, were granted leave for fourteen days from 23rd April 1898 :—

Rikhi Ram, Jai Kishan, Ganga Ram, Harbans Singh, Anant Ram, Muhammad Hayat, Santokh Singh, Gopi Chand, Salig Ram, Tulsi Ram, Sham Lal, Tufail Muhammad, Muhammad Alim, Labbu Ram, Abdulla Khan, Sant Ram, Mula Mal, Uttam Chand, Abdul Rashid, Kartar Singh and Sat Ram.

The services of Hosp. Asst. Nur Ahmad being no longer required at the Lawrence Mily. Asylum, Sanawar, he reported himself to the Civil Surgn., Kasauli, for genl. duty on 26th May 1898.

Hosp. Asst Fattah Muhammad was placed on special plague duty, Jullundur dist., from 27th April 1898.

Hosp. Asst Lachman Das was placed on genl. duty, Mayo Hosp., Lahore, from 4th May 1898.

On relinquishing charge of the special plague duties in Rupar Tahsil, Umballa dist., Asst. Surgn. Miran Bakhsh Utarid reverted to Garhshankar, Hoshiarpur dist., 15th April 1898.

Asst. Surgn. G. Gill resumed charge N.-W. Ry. Hosp., Rawalpindi, 24th May 1898.

Asst. Surgn. E. Phillips reverted to the Abottabad Dispy., 9th May 1898.

Hosp. Assts. Jai Kishen and Ganga Ram reported themselves at the Office of the Inspir.-Genl. of Civil Hosps. Punjab, Lahore, 7th May 1898 for special plague duty at Tara Devi Inspn. Post, Simla, 12th May 1898.

Six months' leave granted to 3rd class Hosp. Asst. Ghulam Nabi is extended by a period of four months

Hosp. Asst. Sher Baz did genl. duty at the Mardan Dispy., Peshawar dist., from 28th March to 5th April 1898.

Hosp. Asst. Mussamal Shah, Nowshera Kalan Dispy., Peshawar dist, has obtained fifteen days' privilege leave, 2nd May 1898.

BOMBAY GOVERNMENT.

Asst. Surgn G. M. Dixon, L M. & S, to the Mrs. Pascol DeSouza Dispy. at Uran from 24th April 1898.

Surgn.-Lieut.-Col. K. R. Kirtikar to act as Civil Surgn., Ratnagiri.

Surgn.-Capt. G. S. Thomson, M B., M Ch., to act as Civil Surgn., Satara.

Surgn.-Major M. A. T. Collie, M.B. (Aberd.), to act as Presy Surgn, First Dist., and Obstetric Physician, Jamshedji Jijibhai Hosp. and in charge Bai Motlibai and Sir Dinsha Manekji Petit Hosps.

Surgn.-Capt. T. D. C. Barry is allowed furlough for one year.

Surgn.-Capt. J J. Bourke, M B, B Ch., to act as Chemical Analyser to Govt. during the absence of Surgn.-Capt. T. D C. Barry.

Hosp. Asst. Hanmantrao Chavan held charge Civil Hosp. at Karwar for three days from 26th to 28th Augt 1897.

Surgn.-Lieut W H. Cox to act as Civil Surgn., Jacobabad, from 4th April 1898

Surgn.-Major C F. Willis, M D., to act as Civil Surgn, Ahmednagar.

Surgn.-Capt. T. W Irvine, M B, C M., to act as Civil Surgn, Jacobabad, from 18th April 1898.

The services of Brig.-Surgn.-Lt.-Col. W. McConaghy, M.D, are placed at the disposal of the Govt. of India temply.

Surgn.-Major R. J. Baker, M D, to be Civil Surgn. and Supdt. Lunatic Asylum and Supdt Med. School, Hyderabad.

Surgn.-Capt. T. E. Dyson, M B, C M., Depy. Sany. Commr., Gujarat Registration Dist., privilege leave for two months and twenty-four days.

Civil Surgn. Surat to act as Depy Sany. Commr., Gujarat Registration Dist.

Surgn.-Capt. W. E. Jennings, M.B, C.M., to act as Health Officer of the Port of Bombay.

Asst. Surgn. Dhanjisha Edalji Anklesaria, L.M. & S., privilege leave for two months from date of being relieved.

Asst. Surgn. Shapurji Manekji Mehta, L M. & S, to Civil Hospt. at Sadra from 2nd May 1898.

Asst. Surgn. G S. Kusumbekar, L.M. & S., to Kharaghoda from 6th May 1898.

Mrs. Annie Sharpe, M D, Second Physician, Pestanji Hormasji Kama Hosp for Women and Children, privilege leave for two months and thirty days from 6th June 1898

CENTRAL PROVINCES GOVERNMENT.

Hosp. Asst. Ashutosh Chatterji, on plague duty at Nagpur to Khandwa,

Hosp. Asst. Ujagar Parshad, doing duty under Civil Surgn., Chhindwara, to Khandwa for plague duty.

Hosp. Asst Ashutosh Chatterji, on plague duty at Khandwa, to do duty under Civil Surgn., Nimar.

Hosp. Asst. Ashutosh Chatterji, under Civil Surgn., Nimar, to Jail and Police Hosp., Khandwa.

Hosp. Asst. Saiyid Ahmad Ali on plague duty at Burhanpur.

Hosp. Asst. Sadashiv Narayan, doing duty under Civil Surgn. of Nimar, is deputed on plague duty at Khandwa.

Hosp. Asst. Abdul Karim, on plague duty at Khandwa, to Mandhata Branch Dispy., Nimar dist.

Passed med. pupil Abdullah Bhai to do plague duty at Burhanpur.

Hosp Asst. Suraj Parshad, doing duty under Civil Surgn., Raipur, to Raipur Central Jail Hosp.

Hosp. Asst. Beni Parshad, Central Jail Hosp., Raipur, is granted three month.' privilege leave.

Hosp. Asst. Bapu Madho to do duty under Civil Surgn., Raipur.

Hosp Asst. Bapu Madho, doing duty under Civil Surgn., Raipur, to Simga Dispy, Raipur dist.

Hosp. Asst. Vishram Sitaram, Simga Branch Dispy., one month's privilege leave.

Hosp. Asst. Sheikh Ramzan Ali, Mungeli Branch Dispy., Bilaspur dist., held med. charge Mungeli Poorhouse, from 26th Dec 1896 to 21st Feby. 1897, and from 22nd Feby to 28th Nov. 1897 he held charge of Mungeli Poorhouse only.

Hosp. Asst Kishori Mohan Haldar, whose services were temply transferred to these provinces for famine duty, held med. charge Pandaria Poorhouse, Bilaspur dist., from 17th Sept. to 26th Nov. 1897.

Hosp. Asst. Baliram Dadaji Deo, Pandaria Dispy., Bilaspur dist., held charge Pandaria Poorhouse, from 4th Dec. 1897 to 19th March 1898

Hosp Asst. Ramkrishna Paikaji, doing duty under Civil Surgn of Hoshangabad, was deputed on plague duty at Hoshangabad from 3rd Feby to 22nd March 1898.

Hosp. Asst. Lakhshman Parshad, Jail and Police Hosp. Saugor, is dismissed the services, by order of the Chief Commr., 15th March 1898.

Hosp. Asst. Ram Lal, doing duty under Civil Surgn, Damoh to Pathuria Branch Dispy, Damoh dist.

Hosp Asst. Surji Rao, Pathuria Branch Dispy., to do duty under Civil Surgn., Damoh.

Hosp. Asst. Muhammad Siddik placed on famine duty Civil Dept, from 18th Augt. 1896 to 31st Jany. 1897, and his services were transferred to the P. W D. from 1st Feby. 1897.

Hosp Asst. Imam Khan, Jail Hosp, Chanda, held charge Police Hosp. from 11th to 26th April last.

N.-W. P. AND OUDH GOVERNMENT.

Surgn.-Lieut.-Col. W. A. Mawson assumed charge civil med duties of the Jhelum dist, 30th April 1898.

In anticipation of his services being replaced at the disposal of the Govt. of the Punjab, Surgn.-Capt. A. Coleman is deputed on special duty in connection with the plague, Jullundur dist., from 30th April 1898,

On return from special duty in connection with the plague in the Jullundur dist. Hony. Surgn.-Lieut. J. Davis resumed charge of the duties of Civil Surgn. of Gujranwala, 29th April 1898.

Surgn.-Capt. G. T. Birdwood, whose services have been placed at the disposal of this Govt to Platform Inspn duty Saharanpur Ry. Stn.

Asst. Surgn. G. Hynes, on return from tempy. mily. duty, to Platform Inspn duty at Saharanpur.

Asst. Surgn. F G. Fox, on return from tempy. mily. duty, to be Asst to the Civil Surgn, Naini Tal.

Asst. Surgn. Dalip Singh Kotwal was posted to plague duty, Hardwar, from 23rd Oct. 1897.

Surgn.-Capt. W. H. E. Woodright, supy. Civil Surgn., on return from mily duty, to Bahraich dist.

Asst. Surgn. W. Heathcock, on return from tempy. mily. duty, to civil med charge of Unao dist.

Asst Surgn. Debendra Nath Guho, Kasia Dispy., Gorakpur dist. privilege leave for three months from 17th May 1898.

Hosp. Asst. Gaya Parshad, Sadar Dispy., Gorakhpur, to hold charge Kasia Dispy. during the absence of Asst. Surgn. Dabendra Nath Guho.

Surgn.-Major J. Sykes, Civil Surgn., Bareilly, to hold visiting med. charge Philibhit dist. from 15th May 1898.

Asst. Surgn. J. T. Parkinson, Sultanpur, to hold visiting med. charge of the Partabgarh dist., from 9th May 1898.

Surgn.-Capt. H. G. Melville, A. M. S., to the civil med. charge of the Almora dist. from 6th May 1898.

Asst Surgn. Har Gopal Chaterji, Sadar Dispy., Rae Bareli, to hold charge civil med. duties of that dist.

Asst. Surgn. Salig Ram Misra, in charge Sadar Dispy, Jhansi, held civil med. charge of that dist., 11th May 1898.

BURMA GOVERNMENT.

Hosp. Asst. Maung Tun U, relinquished charge Police Hosp., Kamaing, Mogaung sub-div., 15th April 1898.

Hosp. Asst. Chowdhry Sharafuddin assumed charge Police Hosp. Myitkyina, 16th April 1898.

Hosp. Asst. P. Paingrahy assumed charge Police Hosp., Kindat, Upper Chindwin dist., 1st April 1898.

Hosp. Asst. Jeet Singh, assumed charge Police Hosp. Sima, Myitkyina dist, 11th April 1898.

Hosp. Asst. Jeet Singh assumed charge Civil Hosp, Sima, Myitkyina dist., 11th April 1898.

Hosp. Asst. Mokhan Lall, Warma was placed on supy. duty Police Hosp, Kyaukse, 27th Feb. 1898.

Asst. Surgn. Maung Chit Tun assumed charge Civil Hosp Amherst, Amherst dist. 20th April 1898.

Hosp. Asst. Wasir Singh assumed charge Police Hosp, Rangoon, 20th April 1898.

Hosp. Asst. Wasir Singh assumed charge Jail Hosp., Rangoon, 20th April 1898.

Hosp. Asst. Ram Chander Podder assumed charge Police Hosp., Kalewa, Upper Chindwin dist., 6th April 1898.

Hosp. Asst. Harichand assumed charge Police Hosp., Pakokku, 20th April 1898.

Hosp Asst. Harichand assumed charge Jail Hosp, Pakokku, 20th April 1898.

Hosp Asst. P. Govinda Pillai, relinquished charge Gen Hosp. Moulmein, 22nd April 1898.

Hosp. Asst. T. A. Ramasami Iyer assumed charge Civil Hosp. Pauk, Pakokku dist. 16th April 1898.

Hosp Asst. T A Ramaswami Iyer, assumed charge Police Hosp., Pauk, Pakokku dist., 16th April 1898.

Hosp. Asst Behari Lal assumed charge of duties with the P. W. D. at Mupalin, Martaban Div., 13th April 1898.

Hosp. Asst. H. Mangesh Rao, to Yamethin dist, 28th April 1898.

Hosp. Asst Maknan Lal Warma assumed charge of duties with the P. W. D., at Nyaunkhong, Pegu-Sittang Canal, 20th April 1898.

Hosp, Asst. P. C Rai assumed charge Outpost Hosp, Myitha, Kyaukse dist, 28th April 1898.

Asst Surgn J Goldsmith assumed charge of duties in connection with plague precautions, Rangoon, 6th May 1898.

Hosp Asst. Mahomed Amir assumed charge Outpost Hosp., Lwelan, Bhamo dist, 18th April 1898.

Hosp. Asst. Villiat Hussain assumed charge Police Hosp, Bhamo, 21st April 1898

Hosp. Asst. Jayeela Rao assumed charge Police Hosp., Bhamo, 22nd April 1898

Hosp. Asst. Khema Ram is granted an extension of leave for two months from 24th Feby 1898

Hosp Asst. Khema Ram assumed charge Police Hosp, Myitkyina, 26th April 1898

Hosp Asst. Gokulanand Mohonty assumed charge Outpost Hosp., Myothit, Bhamo dist., 19th April 1898.

Hosp. Asst. Ram Lal Sircar assumed charge Civil Hosp., Shwegu, Bhamo dist 19th April 1898.

Hosp. Asst. Ram Lal Sircar assumed charge Police Hosp., Shwegu, Bhamo, 19th April 1898.

Hosp. Asst. Muhammed Sheriff, relinquished charge Genl. Hosp, Rangoon 26th April 1898.

Hosp. Asst. Maung Tun U assumed charge Genl. Hosp., Mandalay, 19th April 1898.

Hosp. Asst. Amirta Lal Guha assumed charge Outpost Hosp., Nanyaseik, 10th Dec. 1897.

Hosp. Asst. Hari Chand assumed charge Civil Hosp, Pauk, Pakokku dist, 29th April 1898.

Hosp Asst. Hari Chand assumed charge Police Hosp., Pauk, Pokokku Dist., 29th April 1898.

Hosp Asst. M. Swamiadha Pillai assumed charge Police Hosp., Bhamo, 21st April 1898.

Hosp. Asst. Chowdhry Monla Bulah assumed charge Police Hosp., Myitkyina, 25th April 1898.

Hosp. Asst. P. Devaraja Pillai assumed charge Jail Hosp., Rangoon, 5th May 1898.

Hosp Asst. M. Henry Peter assumed charged Genl. Hosp., Rangoon, 5th May 1898.

Hosp. Asst D. Swamidos assumed charge Police Hosp., Katha, 3rd May 1898.

Hosp. Asst. Maung Aung Pru assumed charge Police and Jail Hosp., Pakokku, 26th April 1898.

ASSAM GOVERNMENT.

Privilege leave for two months is granted to [illegible] Chandra Kisor Sen (2nd), Civil Surgn., Khasi and Jaintia Hills dist., from 5th May 1898.

Hosp. Asst. Rash Mohan Chakravarti, a native of the Khasi and Jaintia Hills dist, Shella Dispy., on [illegible] from 5th May 1898.

Babu Asvini Kumar Datta is apptd. on probation for six months a Civil Hosp. Asst. in Assam and posted to Sylhet for duty as a supy. from 14th April 1898.

Hosp. Asst. Karamat Hussain, having passed the Dept. Prel. Exam. of Hosp. Asst., is promoted to the 2nd grade, from 8th March 1898.

Sick leave for four months is granted to Hosp. Asst. Mahim Chandra Dutta, 27th March 1898

Hosp Asst. Nasir Ali to the med charge of the dispy. and coolie depot at Katigora, Cachar dist., from 11th April 1898.

Hosp. Asst. Loke Nath Nath, Katigóra, Cachar, dist. to Lushai Hills dist., Kolasib outpost, in that dist., from 30th April 1898.

Hosp. Asst. Hara Lal Shome, Boujor outpost, Lakhimpur dist., to Tengakhat dispy, in that dist, from 19th May 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Re 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTH.

POWDER.—On 23rd May, at Darjeeling, the wife of C. F. Ponder, M.B., C M., of Kalimpong, of a son.

DEATHS.

WALL.—On 29th April, after a long and painful illness, Alfred John Wall, M.D. Lond, F R.C.S., I. M S, (retired list), aged 50 years.

IRVING.—On 3rd May 1898, at his residence, Clifton, James Irving, M D, late Surgeon-General of Bengal, for many years Civil Surgeon of Allahabad, aged 76 years.

PARTRIDGE.—On 7th May, at his residence, Thicket Lodge, Anerley, Depy Surgn.-Genl Samuel Bowen Partridge, C I E, Q H S, Bengal Medical Service (retired), aged 69 years

NOTICES TO CORRESPONDENTS.

M. M. (Gadarwara).—A European surgeon, for removing a necrosed metatarsal bone under chloroform in the patient's own house, would probably charge four gold mohurs as his own fee and one gold mohur for the chloroformist. We think a similar operation performed by a Hospital Assistant, under similar circumstances, should entitle him to a fee of at least one gold mohur or even twenty-five rupees, and five or eight rupees for his assistant who gives chloroform

N. E J. (Kote Dri) —If a member of the Association loses his original certificate, he should apply to the Secretary for a duplicate copy. This will issue on the order of the Council, and after the payment of a fee of Re. 5 for the duplicate certificate. The member must have paid up all his dues.

Members of the Indian Medical Association.—The Secretary desires us to notify that many members have not remitted to the Treasurer their yearly subscriptions All defaulters are kindly requested to fulfil this duty without delay.

Defaulting Subscribers of the Record.—The manager has much pleasure in stating that all but a very few of the defaulting subscribers to the Record have loyally paid up their dues. He is loath to publish the names of the remaining defaulters, and trusts they will spare him this unpleasant task.

P. D. P. (Secunderabad).—None but qualified medical men and women are admitted into the Indian Medical Association.

GENERAL ARTICLES.

THE SANITARY CARE OF THE SOLDIER BY HIS OFFICER.*

By Surgeon-Colonel G. J. H. Evatt, M.D., A. M. S.

(Continued from page 138, Vol. XIV.).

31. In those bad old times it was an often quoted saying of old school Generals that the opinion of the military doctor was valuable when it was asked for, that is to say, no sanitary initiative existed for the doctors. Since 1857, however, this power of sanitary suggestion has existed, and with thoroughly sound results. In studying the above death-rates of the army, we should note that consumption caused 67 per cent. of all the deaths in the Household Cavalry during the pre-Crimean period, 50 per cent. of the deaths in the cavalry of the line, and 57 per cent. of the deaths in the infantry were from consumption, a probably preventable disease caused or greatly developed by overcrowding in the barracks. At the present time the death-rate of the Guards has fallen from 20 per 1,000 per annum, that bad standard of old years, until, in 1890, it has fallen to 9 88 per 1,000, and you will find in the A. M. D. Blue Book that in the year 1891 the report shows that the death-rate of the army had fallen to 9 13 per 1,000. What is the cause of that? It is, I think, largely caused by the better space and the better sanitary conditions and environments that the soldier is living in, and these results have been largely owing to the sanitary advice of the medical service acting in preventive capacity as the preventers and not merely the curers of disease.

32. It is in the discharge of this duty that the greatest moral courage and independence of character is needed. There is nothing more easy and charming than to go to a great hospital and to work there; no one interferes with you and you may make yourself a great name. I may serve in a far-away garrison in India and may make a great name by treating the 50 or 60 cases of typhoid that occur in the year, and may be much thought of and honored. There is a better way to make a great name. I say that if my child is ill and there is a doctor close by who can cure him of diphtheria, he is a good man, but the doctor who prevents the attack occurring is a better man. That military doctor who, knowing the soldier's sanitary wants, his water supply, his clothing, his food and his surrounding, and who seeks the reasons why a man is getting sick with typhoid, is a more useful man to the nation and the army, and a better man than the other, however good he may be. You want in the army, as a Medical Officer, the man who will give you in the battle 10 more men to your battery or 100 more men to your regiment. Is that the case or is it not? It is most certainly. I say that the sanitary side of life is of great importance. You may read in the military papers letters which say that the military doctors should be what they call a doctor; they think and talk as if in England there were not more than 1,000 doctors who do no curative doctoring whatever in the way of prescribing for the sick. But the 1,000 doctors in the public health service of England are most masterful men, and have far greater authority as regards the inspection of food supply and the sanitary condition of the people than we have in the army. These physicians are just as much doctors as the others, but they are dealing with a different side of the question of life and its ailments, viz., with the question of prevention of disease; and for you in the army it is of great importance that you should not get in the military service weak-kneed and craven men afraid to speak on sanitary matters, but men of rank and standing who would be able and willing to speak out and point out the path to sanitary improvements.

33. The army death-rate has thus fallen largely by going into sanitary matters, and you have benefitted by it, by having men in your ranks of the army healthier and readier to go to war. Short service, no doubt, has also to be considered as a factor in this matter. While the death-rate has fallen and invaliding has fallen, it must be remembered that the soldier to-day stops with us but a short time, and the health returns may, perhaps, be vitiated somewhat on that account. I came home last year from India in a crowded Indian troopship, and I saw that point very marked. Many of the men there were not invalids officially (nor did they appear in any invaliding returns), but they were no more fit to go into the English labor market and compete with healthy English laborers than any of us coming home seedy with ague would have been. Their unfitness was entirely owing to the Indian climate, although it figured in no return. They had not, however, re-engaged. Many said to me, "It is too much bother to re-engage; I am constantly getting ague and feeling seedy, and I am going to the reserve." In the old days when I joined we kept those men and they could not get away; in fact there was no chance of getting away except invaliding, whereas now men simply do not re-engage.

34. This question of bad air and overcrowding of barracks is of the greatest importance for this reason: Impure air goes directly into the lungs, but bad water may be killed in the stomach. I may drink bad water and the juices in my stomach may kill the bad water, and I may survive. It is well known that 2,000 persons in a large church or building will in two hours give off 17 gallons of water and as much carbon as would come from one cwt. of coal. That is not a very pleasant atmosphere if it is not constantly changed. Do not forget also that 30 grains of organic matter are given off per man per day from his body in the shape of worn-out skin and *débris* of the body. The smell of the men in barrack-rooms may be very unpleasant and most trying, altogether caused by the closeness of the men and the want of fresh air. And that affects the men's health and discipline. You must remember that the barrack-room is not only a dormitory; the men are eating and drinking and sleeping in it, brushing their dirty boots in it, brushing their dirty clothes in it; pipeclaying their belts in it, and smoking in it, too, and the air can become very vitiated from all that. In dealing with the question of overcrowding, then, we have got to bear this in mind, that we are dealing with a fixed law which we should recognise very fully as to the danger of interfering with the cubic space allowed to the soldier, and I trust that whenever letters come to you on this matter that you will receive with great consideration any suggestions with regard to any question of overcrowding.

* A lecture delivered at the Royal Artillery Institutions, Woolwich, and sent to the Editor by the Author.

35. *Urinals.*—It is very needful we should speak here about the question of urinals. There is still in all the barracks in England, or in most of them, this horrible urine tub—that is to say, you have a horrible looking thing, a wooden tub; of all things most highly absorbent; which is supposed to be tarred every quarter, and into this the men urinate. I must tell you that no light is allowed at night by the regulations for this tub. The soldier comes out of the barrack-room on to the lobby; there is no light, and the consequence is (and we may see it in most barracks) that the ground round the urine tub is constantly saturated with urine. And a case has occurred, I think, even in this garrison, where the urine has gone not only on to the floor, but through the floor, and has come out on the roof of the room below. A case occurred before my eyes where a soldier on the inner side of the room was sleeping with the head of his bed against the wall where the urine tub was and the urine soaked through, and he complained, and I think justly, of that urine coming out towards where his bed was. Those questions are very important. We want, in the first place, light at night over the urinals, and we want regular urinals built as you see them at railway stations, and attached to the buildings with water flushing them and light over them, where the soldier can urinate without soiling the floor and tainting the air of the barrack passages. Why should railway stations and other places beat us in civilisation? I think we can get these urinals if we jointly push the matter, and we mean to do it; we will push away at this urine tub and get something better for the soldier. Even an iron bucket would be better than an absorbent wooden tub.

36. *Baths and Lavatories.*—My next point is about bath-rooms and lavatories. I could not exaggerate to you the defective condition as regards cleanliness of the person of our soldiers. No one sees as we in the medical service do the absolute filth of the soldier's person. A man comes up before me well dressed and well turned out, but he is a "whited sepulchre"; the condition of his person and the odour that comes from him are very unpleasant. What is the reason? The reason is that the regulations only allow one per cent. of baths for the troops; that is to say, that for every 100 soldiers only one bath is allowed; and they allow 12 basins per 100 soldiers and four foot-baths. But you must remember that the soldier is not allowed any warm water to wash with. I cannot tell you what an important matter this is. This odour, this *esprit de corps* in the very worst sense, which comes from the body of the soldier is most offensive. If anyone will come over to the Auxiliary Hospital in the morning you will have a smell like the odour of a troop-ship in the Red Sea. Now, all that arises from preventable causes. We want warm water laid on most awfully. I maintain that from the 15th of October to the 15th of April all bathing ceases in some garrisons, and the body of the soldier is not washed at all. That comes before us doctors in the most striking way. I have to examine a man's chest and the odour is most trying. Remember the cubic space is based on the clean man; but you have this man going to bed in the barrack-room with his body not washed, so that the air becomes offensive and tainted, and this affects the health, the fitness, and, in the end, the discipline of the soldier.

37. As you know in this garrison here during the past few months a great improvement has been made; that is to say, that by the efforts of Colonel SPRAGGE warm water arrangements have been placed in five groups of barracks, and I had an opportunity the other day of totalling up the number of baths taken. I beg of you not to say that soldiers will not do certain things, for I find that between the end of November and the 13th of January in this garrison 1,200 warm baths were taken in one of the five groups of barracks alone in the baths quite lately put up. And those baths, mind you, are worth in the town 6d. each. What is going on round the barracks here? Every possible religious denomination is going in for baths for the soldiers; you can get a Church of England bath, or a Wesleyan bath, or a Unitarian bath, you can get all kinds of religious baths, but no State bath. But the State is bound to wash the soldier. A devoted lady, devoting all her time to the soldier, said to me the other day. "We do so much want a bath!" She suffered very much from the odour of the soldiers in going amongst them. Now, we must do away with all this bathless condition. My own view is that we cannot provide little trumpery bath-rooms in very small groups of barrack-rooms, but just as the Municipality are building public baths there should be in every large barracks a separate bathing-house in which men could have plunge baths and wash and bathe themselves thoroughly.

38. I would ask any gentleman going round the town here to go to the public bath buildings opposite the Town Hall, and I maintain (I do not care what his views are about baths) that he will be surprised at the municipal baths of Woolwich—they are splendid. The Municipality of Woolwich is laying out £40,000 to wash the Woolwich people, and you would be surprised—I maintain whatever your dreams are they will be exceeded. There are two magnificent plunge baths into which you might put, I will not say an ironclad, but a very large vessel, and there are exceedingly good first and second class baths which provide everything that is wanted. If a soldier is in the army, where he cannot express an opinion and has no vote, it is necessary for his officers to put forward this matter thoroughly for him, and to say that it is affecting the recruiting of the army; that better men will not come to us because of these things. If a man outside in civil life can go to the Municipal baths, he will look upon the army when he comes to it as below a healthy standard. You must advance as the civil population are advancing. Look at Plumstead! You see house after house by hundreds built for workmen who a generation ago were living in single rooms, as 80 families of our own live in Woolwich. We have to-day 80 families living in 80 rooms, each family having but a single room. Then, I say, the baths have been thoroughly appreciated, and the result of our inspections on the Saturday is very marked. In one unit particularly I was charmed with the cleanliness of the men. I think I told an officer here about it, that their feet were so clean that they could have been used as ornaments for a lady's table. You come and say to me, "Oh, but they will not care for them; they will not use them." *But they will do much if only we teach them to do it.*

39. *Married Quarters.*—I should say a word here on married quarters. I have said already that we have 80

families have living in 80 rooms, each family having but a single room. The new regulations from the Quartermaster-General's Department, about married quarters, seem very reasonable and very just. Quite recently I had the pleasure of going round the newly-built married quarters, and there is in them a great improvement in space and comfort. I think they quite satisfy the dreams of the most indefatigable man. The whole system of married quarters is an evolution. Formerly the wife was not recognised at all; then she crept into the barrack-room and slept there, with a sheet or blanket put across to screen her from the soldiers. This was in the good old days, which were really the bad old days. Then she moved out of that, and then they gave up the barrack-room to four or five families; that existed in my day, in Chatham, in 1865. Then they went from that into a single room built as married quarters. Next year, when they will go into the New Brookhill Quarters, I think the demands of the most exacting sanitarian will have been met for the time being.

40. *Latrines.*—We have spoken about the percentage of baths, one bath being allowed per 100, and four foot-baths per 100; but the soldier has also the right to go to the latrine. But it may be full at times, and I have seen great trouble in that matter. What accommodation do the regulations give to the soldier in that respect? They allow five latrine seats and five urinal spaces per 100 men! The question came before me the other day, and how did I find it out? I searched book after book, and suddenly by good luck I came across a most valuable book. I will tell you the name of it: it is called "The Synopsis of Barracks and Hospitals," and it is kept up in the Commanding Royal Engineer's Office. I maintain that there is no book that I know of that ought to be more in the hands of Commanding Officers. I have not got one, the Principal Medical Officer has not got one; not a single officer has got one, and I do not know who has except this one copy in the Commanding Royal Engineer's Office. This gives us all details about the baths and latrines; it is not in any of the regulations. We have volumes of military books, but this very vital book is not there at all. I would say that the Government or the Military authorities would do well by publishing this book; it is not anything confidential, it is the number of baths and basins, of latrine seats, and the amount of cubic space, and many useful things about hospitals. I was thinking about blinds for my hospital and how I could approach the Commanding Royal Engineer, when I found in this book that blinds for hospitals are allowed, and at once I applied for them. But we do not want to be fighting these kind of questions all over the Empire; we ought to have this book given us. I applied officially, through my superiors, to get a copy, and the reply was that this book is only supplied to the Commanding Royal Engineer. *It is the family secrets, as it were, of the Royal Engineer Corps.* Why, I do not know, as it is needed by the whole army. I hope it will be made an official book.

41. The question, then, of latrine accommodation is important in this way, that last year in India (and when I think of the charming young officers who have died in India it is most sad) we had 1,200 cases of typhoid amongst the young soldiers in India, and we lost by death 300 of the Indian garrison by typhoid alone. The question, therefore, of the removal of latrine matter is a most important question, and you must not look at these questions as beneath notice. I cannot tell you how painful it is sometimes to go round on a barrack inspection. You come round by the Principal Medical Officer's direction. The Medical Officer goes to inspect the barracks, and who goes round with him? I have myself gone round with the Quartermaster, and have been met by a casual Subaltern, who looks upon the whole thing as a very great bore perhaps, and when you go to the latrine this Subaltern stands aside and the Quartermaster and the Doctor walk in. Believe me, gentlemen, that "command" includes the latrine also. If you look the matter in the face there are lots of men in the barracks standing looking on, and if they see the officers stand aside they say it is not of the least importance. Now, I maintain that it is of great importance. Here again, I say, there are two armies: there is the army of the "Queen's Regulations," which is kept tight and hard by the regulations, and there is the rational common-sense army. In the army of the "Queen's Regulations" a Captain or a Subaltern takes the Principal Medical Officer round; but there is another common-sense army, in which the Commanding Officer himself goes round with the Principal Medical Officer. Believe me, that the Commanding Officer, just like the Irish landlord, has his duties as well as his rights. You must remember that your command is supreme, and when the Commanding Officer goes round with the Principal Medical Officer, the result is enormously good. The Subaltern does not know much about these things, but the Commanding Officer is responsible to the army and to England for all these things. I maintain that it is absolutely essential; it is not a question of rank, but is of great importance to the soldiers.

42. *The Soldier's Bedding.*—I would like to say a word here on the question of the soldier's bedding. The soldier is allowed 24 lbs. of straw per quarter, and with this he makes the bed and bolster; no pillow is allowed him. I have brought with me here to-night the two sheets which are used in the army; I think it will be instructive for you to see them. One is the hospital sheet which is used by the soldier in hospital, and the other, which anyone might imagine was a piece of navy canvas, is the soldier's barrack sheet; it is a piece of canvas which has come here by mistake, and is called a barrack sheet. We are now pursuing the reasons why the barrack-room smells. The soldier does not wash; the men are lying there close together; the ventilation may be interfered with. But we now come to the bedding. The bedding is of straw and he gets two sheets. How often are they changed? They are only changed once a month, and the condition of those sheets, when they are used, becomes something very marked indeed. A soldier, mind, who does not wash, and whose body is not always clean, is lying for one month between those two pieces of canvas, and the result is very trying. I maintain that we might go to the country with a cry of a fortnightly washing for the sheets; and it would be a great comfort to the men. But you must also remember that if you give this coarse kind of sheet to the soldier he will not use it at all, and I find that only about one-fourth of the men use their sheets;

the rest of the men turn in in their flannel shirts. And in the artillery, where they have got drawers, they turn in as they come out of stables. A man goes to the stables, where he works all day and sweats hard (because your drivers work very hard indeed), he comes out with his drawers and shirt soaking in sweat and turns in and lies in this sweating condition in the blankets, and the blankets are washed only once a year and the sheets once a month. This man comes before me the next morning at the Auxiliary Hospital, I strip him, and he comes out of his flannel shirt that he has been sweating in for a week, and he puts off from his clothes a small portion of horse manure that comes out from between his waist-coat and his flannel shirt—that is to say, the man has turned in and has not changed his clothes in any way. And we want to look into those questions.

43. What, then, is done with the sheets? They are used sometimes to put over the saddlery; constantly to tie round his waist to keep him from soiling himself when he is doing up his accoutrements; they are constantly put under the pillows and beds simply for safety and not used at all. The soldier says, "Why, sir, use the sheets! I would as soon use a piece of coir matting." They also complain that the sheet is so rough that it wears out the flannel shirt which they are wearing as soldiers. A specialist in sheets told me he thought the soldiers' sheets would make excellent bath towels.

44. Then a soldier marries, and among other boons that he gets is the right to use the hospital sheets, every married soldier gets a pair of hospital sheets once a month. I asked a married woman how often they were washed, and she said, "Once a week." The police have their sheets washed once a week, and so do the paupers in the workhouses, but the soldier's sheet is only washed once a month. In Egypt they are washed once a fortnight. In India the soldier gets two sheets given to him when he arrives out, and one sheet a year afterwards, and as there he is allowed to wash them at his own expense, he washes them once a week. Then, as regards the straw pillow, or bolster rather, I find that the old soldier, the man who really likes comfort, always travels about with his own private pillow. And the married people never think of using the barrack beds; they have their own private mattresses, and they use the straw below them to make them softer.

45. But I find that in some garrisons, such as Aldershot and Portsmouth, they have issued a better bed, a coir bed, which makes a capital bed; it is used in India. The Government allows there a coir bed and it makes up a very good bed, and the men tease the beds themselves and wash the mattress case. There are 2,000 of them now lying down in the Dockyard, and I was told that there were several hundreds in use in London, and also at Aldershot and Portsmouth. They are distinctly an advantage. Therefore I think the straw bed might be replaced by the coir bed in Woolwich. Why should the soldier lie in a straw bed? We have long since chucked away the straw bed for sick men. FLORENCE NIGHTINGALE says if you want to kill a man who is seriously ill, put him on a straw bed, because it takes out much of the vitality from a man. The soldier's bedstead is 27 inches wide—his mattress is too narrow and his sheet is only 50 inches across—while the hospital sheet is 72 inches. We want a lighter bed with [illegible] than the present. We want hospital pattern sheets, and blankets scoured at least once every six months; also the sheets must be washed every week.

46. *The Guard Bed.*—I have put down here under the head of bedding the guard-bed. *A more brutal, useless and thoroughly unfit construction does not exist in the army.* It is not of the least use to train a man for war. I have been in five campaigns myself, and everyone knows that no one is asked to lie on anything like the guard-bed. There is no reason whatever why the bedstead, with a mattress of hair, should not be found in the guard-room. If you speak to the soldier he will say, "Certainly, I would much sooner lie on the ground in the field than on the guard-bed in barracks." What is gained by this guard-bed? Remember that you do not harden your men. No officer ever yet hardened his men. Why, the officers beat the men in everything, and we go out to war off very good beds. If we want to be hardened let us all go on the guard-beds together. If you give the soldier a proper bed for a guard-bed he will do his guard better; it is not the sentry-work alone that knocks him up, it is the guard-bed; they are terrible contrivances, the remains of the bad old system. We want now to give the soldier a bedstead with a mattress of coir or hair, so that in the intervals of his sentry-go he shall get some chance of sleep.

47. *About the question of clothing.*—I will not now deal with the question of tunics and those things, but as regards the question of the flannel shirt. The old army wore always a calico shirt, but General HERBERT, who was Quartermaster-General 15 years ago, devised at Pimlico a grey flannel shirt which contained 47 per cent. of wool; it is not a woollen shirt altogether, but it is a great improvement upon the old one. Now we find great difficulty in getting the men to wear them. There is a laxity about it in some way; there is a want of the old parade system. I remember years ago how the soldier tucked up his sleeve and showed his clean shirt at the wrist. While you are sending men up to the hospital with bronchitis you must remember that every man whom you send up throws more work upon the men behind. If you want to know why the men get bronchitis, it is because they do not wear the flannel shirt. It is of importance that he should also have some under-vest and not go out in this poor thing he is now wearing. Then he wears this shirt night and day, and it is very dirty. There must be a re-invigoration of the check of the "No. 1," or whoever it is in the artillery, or the Color-Sergeant in the infantry, or the officer himself must do it. That is to say in this short service unstable army, in this raft that sinks in mid-ocean under our feet, there is only one stable element—not the non-commissioned officers, not the men, but the officers. So far as I can see, as the old system gives way and the new system comes on, it is more and more essential for the officer to be able to answer for everything about his men. I think that, as in the mounted corps you give every man drawers, you should give a pair of drawers to every soldier in the army; the men would be healthier and better, and there would not be so much coughs and colds. And I would myself like to give the men some suit to sleep in. I said to a man sometime ago, "What do you sleep in; do you wear a night-shirt in

instruction? "Oh, sir, they would tear it off my back in the barrack-room if I were it." But many of these men have been accustomed to better things. You would be surprised when a man comes before you as a recruit looking grimy and dirty, and to find that, although uncared for, this man has been in his own home well-cared for. I ask him, "Did you have sheets in your mother's house." "Yes." Then I ask, "Did you have night-shirts," and they always say they had. In the army they are sleeping in their day shirts often for more than a week, and that produces the most frightfully sickening odour in the barrack-room.

48. *Sleeping Suits.*—On the troopship and in India a sleeping suit would save much trouble. The moment I go back to India I will propose that every man should get a regulation sleeping suit. I am sure it would improve the men's health; certainly it would improve their cleanliness, and it would improve the air of the barrack-room. The whole argument about dress can be summed up in this way; believe me you cannot make any man work in one dress, whether officer or man; that is to say, for example, that a man cannot go out shooting in the Highlands in a long-tailed evening coat. We want a working dress for the army; we want something for the internal barrack life of the soldier, and we want a sleeping suit for him to wear at night in the barrack-room. I notice that in "Parkes' Hygiene" it says that the German army are to be entirely clothed in Jaeger suits under their clothes in war—that is to say, that they find that it pays. Of course, the existence of Germany depends upon her soldiers, and she finds that it pays. Bronchitis and pneumonia in the army running into phthisis causes a great loss of service to the army, and a soldier going on guard not properly dressed gets knocked up, and a thing that often attacks him is pleurisy.

49. I remember I was in a very exposed station in India where pleurisy was a very common thing, and I remember a special case of this: I was going round the hospital with a General Officer, whom everybody in this room would know if I mentioned his name, and I said to him, "This is a case of pleurisy," and he said to me, "What is a pleurisy?" I think it was a pity that he should have had to ask such a question. If a soldier were to leave his rifle out in the rain outside the guard-room and it were to get rusty in the look you would punish him; but behind the rifle is a much more intricate and charming rifle, and that is the man who carries it. We would be better friends if you knew more about disease, and we would be more efficient if we knew something more about soldiering. I think it is essential that the officer who commands the soldier should know what disease is likely to attack him. I venture to say that there is not a good horse-master in this room who would not be ashamed if he did not know the various ailments that might attack his horse. When I go round the stables and see the charming care that is taken of the horses—why, they are gentlemen, they are well groomed, well shod, well fed, and well housed. But your men also have got to be looked after. When I look at the hoofs of the horses they are in beautiful condition. When I go to the hospital ward and turn down the clothes of the men's beds their nails at times frighten me; they stand out like tigers' claws, they seem never to cut them. They do not know how to use those things that make for sanitation, and you have got to educate them. Unclean toe-nails and filthy feet means foot-sore feet and that means inefficiency in war.

50. *The Soldier's Food.*—As regards the soldier's food question the history of its evolution is extremely instructive. Up to 1854 the Government made no contracts for bread or meat; it was done in the regiments by the Commanding Officer, who was sole master. He was sole master of the clothing, and the men got no snipped that the word "off reckoning" survives; the "off reckoning" was the cuttings off the soldier's clothes. In the same way the food also was provided by the Commanding Officer in the different regiments. It was a bad system, and the Government put an end to it in 1856. The soldier drew his pay in full, and the Commanding Officer cut his ration money out of it until the Government took over the rationing and knocked 3½d. to 4½d. off for the cost of the ration. The soldier thus gets his ¾ lb. of meat, 1 lb. of bread, and his pay besides. The regimental rationing system broke down through regimental neglect. Of late years we have heard much about the improvement of the soldier's food, but I would say that the soldier has not gained very much from the State, despite all this outcry. We are pursued by two things in the army, the dripping-pan and the stock-pot, but the original ¾ lb. of meat is all we have as a basis to work upon.

51. I would say that the question of the inspection of rations is most important. No one, I think, can see the Army Service Corps Officer without seeing the enormous deal they have gained by the instruction classes which were formerly held at Smithfield and are now going on at Edinburgh; but I think that that information should not be limited to a corps which does not serve in India, where 70,000 English soldiers are serving under trying circumstances. You cannot conceive how bad the Indian rations are, and we all want to get a certain proportion of this instruction. There should be in every regiment a certain number of officers trained in this ration passing, and the Medical Officer should certainly get an opportunity of going through the course, because the hospital rations do not come before those highly-trained officers at all. By long service in India our eyes get trained down to the bad Indian ration, and when one comes home it is well to get up to Smithfield again to find out what the proper standard of the English ration is.

52. I would also like to say that the Medical Officer has continually before him the question as to his right on a Board. Owing to the quibble as to what his position is, many of them are afraid to say one word on the Boards. It is very trumpery. We send down four men to do what three might do, and the Medical Officer is afraid to say one word until he is asked. I have myself consulted officers and they have said that he should certainly have an initiative. Is he to remain silent and wait until the President of the Board asks him? I say he should be a member of the Board and point out freely and fully anything that goes wrong. Why should our little trumpery frictions affect the army. I say a curse on both your houses. While we are struggling and fighting the soldier falls to the ground, but if we are to combine we

can certainly do the work better, and we cannot do the thing without hearty co-operation.

53. *The Officer's Ration and the Soldier's Ration.*—As regards the question of the soldier's ration, if you would like to compare it with the officer's ration, come with me on board an Indian troopship and see the two divisions of the ship—half the ship full of officers and half of men. I rise and come out of my cabin, and I have at half-past 6 o'clock a very grateful cup of coffee and bread and butter; the soldier at the same time has his coffee and bread in the fore-compartment. So far we are both equal. At half-past 8 o'clock I coffee downstairs and have a capital troopship breakfast, a very good English breakfast; the soldier has his breakfast along with my early breakfast. At 12 o'clock he has his early dinner; I come down at 12 o'clock and have a quantity of cheese, sardines, and beer. At half-past 4 o'clock he has his afternoon tea or coffee, and I have mine in the saloon. But there the comparison between the soldier and myself ends entirely. When I went out to India I found that the last meal given to the soldier was at a quarter-past 3 o'clock in the evening. I wrote to the officer in command of the ship, pointing out the long interval that he went with no food till half-past 6 o'clock next morning; there were swarms of undergrown boys going out, and those boys were getting no food all that time. He said he was awfully sorry, but he could make no change; he would refer the matter home. But when I came home the other day the same thing was going on. And, remember, I was going down at 6 o'clock to a remarkably fine dinner; dinner on a troopship is a great restorative after the fatigues of the day, but the soldier had no dinner at all, he was without it. And what would our lives be in India, or all over the world, if it was not for the messes, which have made our lives happy and pleasant? Let us remember, then, the soldier by comparison with the officer is short of one meal.

54. On the troopship you can see it in a microcosm; I am getting a good dinner and he is not. And who are these men? There are swarms of young soldiers going out to fight against typhoid who want food awfully, and there are swarms of them coming home tired and worn out by the Indian climate to a warefare which is far more bitter than any Indian campaign, the warefare in East London, leaving them far more dagerous to the public. I see them here in Woolwich. The other day I saw a man who was knocked to pieces with ague. I said, "I remember your face well." "Yes, sir, I met you out in India; I am knocked to pieces by ague," and the Indian Government, which is using these men for seven years, sends them home, and they are turned adrift at home on the same pay that a man may get by serving his whole time at Woolwich. If India uses those men I say that these men on coming home should receive a surplus reserve pay for the first year to carry them over the bad year when they are recouping from the wear and tear of Indian life. This question is of great importance. India exists by those men; the private soldier made India for us and he gets nothing at all out of it. We want to make him the same as the Indian officer who comes home on furlough. Let us give him a certain special retaining fee for the first year when he comes home, so that he may fight his battle, a terribly bitter battle, for work in England.

55. On the question of the soldier's food we are pursued by the stock-pot and the dripping pan. Now the stock-pot is not used in the great mass of garrisons, and it is not popular. The men have an idea that the stock-pot is recruited from the bones that every class of man has nibbled at the dinner table, which is not the case, of course. The removal of the bones by unhandy men knocks the meat very much about. As a result it is not much used. So far as the Government ration and the 3½d. or 4d. stopped for groceries go, the soldier is still, to my mind, underfed. When you compare the feeding of different foreign armies—we do not want to compare ourselves very much with foreign armies—but there is one army that I like to compare ourselves with, which is composed of men of our own race, that is the United States American Army, which is largely composed of Irishmen and Englishmen. There the ration of the soldier is a very fine one. It is put down at 1¼ lbs. of meat daily (against our 12 ounces he has got 20), and also 18 ounces of bread against our 16; he also has 1 lb. of potatoes, which our men do not get at all. We are trying to keep the soldier on a ration that he cannot do his work on. We give him his 1 lb. of bread, and his ¾ lb. of meat and stop him 3½d. or 4½d. a day for the grocery ration, but it does not keep the man going, and the way to prove it is that in those corps that are better paid, like the Army Medical Service, the Royal Engineers, and the Army Service Corps, the men lay out much on food. Do you think it goes in drink? Not at all. A man drinks because he wants food. The measure of his shortness of food is the measure of his amount of drunkenness. And I find that in those corps the men are using their extra means largely to buy extra food. I maintain that if extra food were given it would largely diminish drunkenness. In a foreign garrison that I served in the drunkenness in certain corps was terrible; there was bad food, and, as a result, much drunkenness. Feed a man well and give him change of food and he will not drink so much; it would be a thoroughly good investment to feed the soldier well. A man wants at least his 1 lb. of meat a day. I have asked dozens and dozens of soldiers if the ¾ lb. meat ration is sufficient, and I find they are all laying out extra money; those other well-paid corps are all laying out more money to keep themselves strong and fit. What for? To keep themselves strong for England's sake. Look at those young recruits who are going out to India to fight typhoid; they want to be well fed most awfully.

56. The whole subject of the fitness of the reserve soldier for hard work on leaving the army depends on whether he has been well fed in the army. If he is poorly fed, he is not fit for the terrible struggle for work in civil life. I think no work can be heavier than that of a driver of artillery, and if you want to get good work out of him you must put good food into him; in every class that is wanted. I am distinctly of opinion that he would be a soberer and a better man if he had more food. The German war ration is very striking; it is put down in PARKES' book as 26 oz. of bread, 53 oz. of potatoes, 17 oz. of meat, and he also gets a ration of beer. This great fighting machine, the German soldier, fights because into

his body you put plenty of food. And in every case it is the same thing. The English navy is thoroughly well fed, and no man works like he does. And in the same way with the soldier, every penny that we give him in the way of food will diminish his sickness and his drunkenness, and it will be a capital investment. I say the measure of his drunkenness is the measure of his want of food. And also another thing is his tobacco. The soldier is perpetually smoking. I think his drinking and smoking are his attempts to satisfy his demands for food. When I have a man brought before me suffering from drink I say to him, "How much do you lay out for extra rations?" He says, "Not much." I say, "You must eat plenty of food and take less beer." Less beer and more food is quite the true principle to go upon.

57. *The Sergeant's Ration.*—And I should like to point out how one class of men has settled the question about rations; that is the sergeant class. The soldier is paying from 3½d. to 4½d. a day for his ration, but the sergeant is paying sometimes from 6d. to 7½d. But is the sergeant a harder worked man than the private? I do not know that he is physically; but he, too, wants more food, and the measure of the sergeant's money is what the soldier wants; he wants 4d. extra given him in pay or allowances to make him a better fed man. And you see it in this way: The moment a sergeant is broken, and put back in the ranks, he is pulled down at once by the want of food.

And as regards the question of men going to the different recreation rooms (which is growing up more every day) to get some more food in the evening, I would like to say that it is working up towards one thing which we have and the sergeants ought to have. What would our life be without our mess dinner? It is working up towards a good substantial evening meal for the soldier. I cannot think why the sergeants do not have an evening meal. They say it would cost too much; but it would keep them out of harm's way. When a man is eating he is in a very safe condition. The "liver" comes much more from drinking than from food. I was for several years Medical Officer of a great military school, and those years acted upon my life enormously. I shall never forget them. When I went there I found those young growing boys getting dinner, just like the soldiers, at a quarter-past 2 o'clock in the day, and they were left all the evening to their own devices, as to food supply, with very bad results. I say that for a man to live on lobsters, sardines and salmon, and that kind of indigestible food in his bed-room at night is a defective system. I say that the tea squad system was a defective system, and I know it because the cadets come before me ill, and I say that whatever I have done in my service there is nothing that I congratulate myself upon more than that I was able, by constant and reiterated reports, to get that late dinner for them; and it is a perfect success, I think, in every way. The soldier, I maintain, who is wandering round the town now looking about for amusement, and also, I think, looking perhaps for food, would be a happier and a better man if he got a good meal in the evening.

58. *Barrack Cooking.*—I would say a word also about the cooking. Throughout nearly the whole of the Woolwich garrison the preparation of the food of the men is still done in the barrack-room. We have reports continually of the lavatories being choked by pieces of vegetables and potato skins. And the dishes are not made in the kitchen under the surveillance and instruction of the master cook; he is devoting his whole time to watching the consumption of the coal, whereas he ought to be, and is sometimes, instructor of the cook. The dishes are often made up by the men by roster, and there is not much real development in this most important art of cookery; and the result is that the sergeant cook, a trained specialist from Aldershot, is below watching the coal instead of watching the actual preparation of food. This is a matter that might well come before you. Then you ask, perhaps, is there room enough in the kitchen to do all this; it is very small. Well, a kitchen should be devised with a preparation-room outside of considerable size, airy, and clean, where the dishes could be prepared. And I think also that the day is rapidly coming when you should have a dining-room for the men, and if I could devise such an arrangement in my fancy's eye I see before me in the future a receiving-room for rations, opening next into a large room for preparing the food under the eye of the master cook, then passing by a door into the cooking-room, and then passing away into the dining-room where the men would sit down and eat their meals (not as they do now in the bed rooms), and that same dining-room if it were properly warmed and lit would keep the men together in the evening. Of course, the battery unit and the company unit are very important to preserve; and this company dining-room and battery dining-room would, I think, be a great improvement for the soldier.

59. *As to the comfort and appearance of the barrack-rooms much still remains to be done, and while referring to this point I may quote the opinion of Lord Wolseley, who allows me to publish his remarks: He says: "When I came to Ireland over three years ago, I gave orders to have not only the hospitals but all the barrack-rooms tinted a pleasant hue. I find it takes away the prison look from our barracks, which I regard as most essential, and now that colored pictures of a very interesting and pleasing nature can be obtained cheaply, there is no reason why every company should not make its barrack-rooms homely and comfortable."*

"We pay our men so wretchedly that we can only hope to entice men to enlist by making them happy whilst they are with us, and the first step towards happiness is to make men's dwellings bright and cheerful. We have done much in recent years to improve the condition of our men, but much, very much, remains to be done."

60. *Punishments.*—One last word, about the question of punishments. When I first entered the service soldiers were continually being tried for habitual drunkenness. I used to keep ready in my room dozens and dozens of court-martial certificates, and the regimental court-martial had lost its prestige because it was doing the work that the Commanding Officer since is doing so much better. What was the result of the system? You put a man in prison, and you put his work upon his comrades. I would say to you that, so far as my experience goes, long terms of imprisonment have done enormous injury to the soldier. When he comes out the man has lost strength, he plays about between you and between us—he is here, he is in prison, he is in hospital. I think, myself, the fining sys-

tem for drunkenness was a tremendous blow, because the man went back at once to his duty—he did not throw it upon his comrades—and to his rations; and I am sure he was a better man than he was made by long terms of imprisonment, and I hope the day will come when you can get rid of those long imprisonments out of the army.

61. Long terms of imprisonment in Indian military prisons, often for unimportant crimes, act with highly injurious influence on the soldier's health and life fitness for the battle of life after the soldier leaves the army. I cannot think that anything more than one year's imprisonment should be given to a soldier in an Indian military prison—for if you do give him longer terms he becomes so enfeebled as to be liable to all tropical ailments, and eventually he is thrown on the English labor market, weak and broken down, and sinks into the useless soldier tramp, whom we all know so well.

I hope the day is rapidly coming when simple expulsion from the army will in itself be a most serious punishment, just as the expulsion of a constable from the police force is a real blow to any man who undergoes it. The least rise in the soldier's pay will tend to bring about that happy consummation.

I would say, finally, that we want above all things to combine in this work. I have no power to speak in the name of the medical service; but I say emphatically that our whole desire is that every want you have should be met. If up to the present time there have been troubles and difficulties in the initiation of a new system, I would beg you to remember that our whole aim is to come back to you and to do more for you than the regimental doctor ever did, but we must remain a unified corps.

THE DISCUSSION.

The Chairman—We shall all agree, I am sure, that we have heard a most interesting lecture which has covered so many points that I really do not know what to mention out of them. I do not know whether any officers have any questions that they would like to ask, but I am sure that Colonel EVATT will be very pleased to reply to any points that may be put to him. What he has said will lead us, I hope, to co-operate with the Medical Officers in many things—in some matters, of course, we can do nothing. We cannot give the soldier 3,600 cubic feet of air but we can bring our influence and opinion to bear upon the state of the barrack-room. Certainly one hears from Military Attaches and others that the barracks of the Russian and Prussian Guards are far ahead of our men's barracks.

Major F. A. YORKE—There is one point only that I would like to mention with regard to what Colonel EVATT said about a soldier's dining-room. In the Riding Establishment we have been very fortunate. It is not any credit to myself, but circumstances have so happened that I could get a dining-room where the men all sit down with a white oil-cloth put over the barrack tables, and we were allowed to get carving knives and forks and all the little things that make a dining-room look comfortable. The consequence is that men sit down there every day to something more like what they would in respectable civilian life, and that has had a great effect. I notice when I go round the rooms inspecting them that there is a great absence of that nasty sort of faint smell of food that there used to be in the barrack-rooms, and the men certainly appreciate it very much. It is, I repeat again, no credit to myself, but circumstances so happened that I got a spare room given to me for the purpose.

The Chairman.—It only remains for me now to thank Colonel EVATT on your behalf for his most interesting lecture.

ANCHYLOSTOMA DUODENALE: IS IT WIDE-SPREAD IN INDIA, ASSAM AND CEYLON, AND IS IT A HARMLESS OR A HARMFUL PARASITE?

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FROM a public health point of view, it is a matter of vital importance that these questions, which concern the health, labor and lives of millions of people in Assam, Burmah, Ceylon and India, should be carefully sifted, and if there be any who are not prepared to believe it is a harmless parasite, let them say so with no uncertain sound, and let them suggest the steps to be taken to mitigate its effects and limit its spread.

In the face of the havoc it caused among the St. Gotthard Tunnel workers and the Cologne brick-makers, or the damage it did in Borneo, Brazil, Cochin, Egypt, &c., and after all that has been written about it by BILHARSZ, DUBINI, GRIESENGER, HIRSCH, LEICHENSTERN, LUTZ, SONSINO, WENCHERER and many others, is it possible to doubt that, *when present in large numbers for a sufficient period of time*, this parasite causes a specific and fatal anæmia? Can any one, who has held a *post-mortem* on an anæmia cadaver and seen hundreds of these parasites clinging, like veritable *blood-sucking leeches* to the intestinal walls by their teeth which are so firmly imbeded in the tissues as to require some force to pull them off or looked upon the scars of what are manifestly old bites, still maintain that these are harmless intestinal parasites? Will they not rather agree that (1) the anchylostomum or dochmius duodenale is one of the most harmful and dangerous of human parasites, which (2) when present in the intestines in large numbers and for a certain period produces a specific and dangerous anæmia (3) which should in future be known by the name of anchylostomiasis, to distinguish it from the beri-beri which (latter) is characterized by the presence of neurotic symptoms?

That it is widespread in India and Assam is amply proved by Surgeon-Major DOBSON and Dr. MCDONNELL. The former, who examined the fæces of 1,949 natives of India, drafted from 35 districts of 9 provinces, found small numbers of anchylostoma in 75·56 per cent. of them; while the latter wrote to the *Lancet* in 1882, demonstrating its extensive prevalence in India, and Surgeons-Major GILES and NEIL CAMPBELL, with almost all the Assam medical officers, tell how the parasite is spread to a large extent over the tea estates and to a lesser extent amongst the villages of Assam.

In his special report of 1886 on "Beri-beri (an unfortunate term) or Anæmia of Ceylon," as well as in his

Annual Report of subsequent years Dr. KYNSEY, the Principal Civil Medical Officer, shows how prevalent it was and is, while Dr. MACDONALD does the same thing in his footnotes to the translations of ESCHERICH, EHNI, LEICHENSTERN, LUTZ, &c., in the *Ceylon Journal* and the Ceylon Medical Report for 1893, showing 1,760 hospital cases, with 395 deaths and 2,364 cases treated at the dispensaries (alternate results unknown) is hardly definitely conclusive of actual extent of prevalence since it is a common practice with many medical officers (who *still* do so) to return cases of this disease as malarial cachexia, diarrhœa, debility, dropsy, anæmia, &c., according to the most prominent symptoms, but without having examined the fæces for anchylostoma ova or adult parasites, whose presence they did not even suspect in many instances of severe anæmia, much more search for them.

From September 1892 to December 1893, the fæces of every patient admitted for marked anæmia into the hospitals of the Uva Province (160,000 population) were microscopically examined with the result that these parasites were found in such numbers in 118 children and 655 adults (*i.e.*, 572 males and 211 females or 783 cases) and under such conditions as to justify their being diagnosed and returned as cases of anchylostomiasis; but it must not be imagined that the parasite and its resultant anæmia are confined to immigrants from India, since the nationalities of these 783 cases were:—231 Sinhalese, 45 Ceylon or indigenous and 470 immigrant Tamils, 35 Moors, 1 Malay and 1 unclassified. Whether this disease existed among the Sinhalese in past times or not would be almost impossible to ascertain, but the fact remains that it is now widespread among them in the Uva and other provinces of Ceylon, especially where Indian immigrants are employed on the estates.

Drs. SANDWITH and SONSINO have shown how prevalent and destructive this parasite is in Egypt, where about one quarter of the population is seriously affected by it, and where it is so "sapping the life of the peasant class" that 3·3 per cent. of the *adult* males of Upper Egypt and 6·2 per cent. of those of Lower Egypt were rejected as being unfit from *advanced anæmia* to serve in the Army, whose Recruiting Officer, an Englishman, rejected those only who were obviously too anæmic to serve with the colors; but accepted many who were already the hosts of this blood-sucking worm. In one province alone, Menoufieh, as many as 13·9 per cent. of the applicants were refused military service on account of this anæmia.

GILES and the Assam medical officers have shown that the parasite is very prevalent among the tea estate coolies in Assam, and that it is not unfrequent among the villages in Assam in the vicinity of estates, and DOBSON declares:—"The indigenous population of the Dhubri district seem to have the parasite equally prevalent amongst them," while the Ceylon Returns and Reports show the same prevalence amongst the estate laborers and villagers, and even if it could be shown that it is not *at present* equally prevalent or destructive to life and labor in Assam, Ceylon or India, is there any reason to conclude that it will not become so, unless energetic measures be taken to limit its spread, and is it not the duty of this large and important Indian Medical Congress to urge on the Government the necessity for such steps being taken and to indicate what those steps should be?

Reviewing Dr. DOBSON's remarks in the Assam Reports, the *British Medical Journal* of 7th October 1893 says:—

"But we submit the anchylostoma is not the innocuous parasite Dr. DOBSON's remarks tend to make it out to be: that, on the contrary, as the researches of many able men in Egypt, Europe and America have established, it is the cause when present in large numbers and in particular circumstances of a distinct disease, and that it is a powerful contributor to the mortality in such countries as India. We think therefore that he goes too far in minimising the pathological *rôle* of anchylostoma duodenale, and we trust that his views on this point may be received with caution and may not be allowed to interfere with the prophylactic and therapeutic measures his researches so plainly indicate."

Dealing in Assam only with those immigrants from India who had left their villages and were on their way to labor on estates, Dr. DOBSON saw only the *picked* coolies who, when they left their homes, were well enough to travel, but certainly did not represent the average as regards effects from this parasite of all the inhabitants of the villages in India from which they came. It would have been correct and more reasonable to conclude that in the villages these infected immigrants came from there were many others who *were* and many more who would soon be, infected with larger numbers of this parasite, and that they either did or would soon reach that stage of infection when from larger numbers or from longer residence in their intestines of smaller numbers the characteristic anæmia and debility did or would appear, and had Dr. DOBSON only followed up his researches by visiting the villages, etc., from whence came these "healthy coolies, the cream of the population," he would not only have found numbers of persons in far advanced stages of anæmia and debility with not 5, 10, 50, 100 or 150 only but hundreds or thousands of anchylostoma and the sickness and mortality that results from them, but also would neither have written: "These results (page 52 of Assam Reports for 1891) are astounding as they prove beyond doubt how very extensively the anchylostoma is distributed over India *and with practically no bad results*" "where (page 63) 65·38 per cent. of the cream of the imported population is literally teeming with the parasite" nor asked "Why should not the anchylostoma prove equally fatal in other parts of India?"

Then on page 66 of the Assam 1892 Report he says:—"In true beri-beri (he means anchylostomiasis), it is often found in trifling numbers, and again in absolutely healthy persons it is found in great numbers;" but he neither quotes actual cases nor gives their medical history or particulars of how often their fæces were examined, nor does he say whether his remarks were based on the number of parasites present during microscopical examination of the fæces for ova, or on the number of parasites found after only one administration of thymol. Even supposing that he did repeatedly examine even a fair number of bad cases, he would not be justified in concluding that the condition was not due to the anchylostoma; for GILES, LEICHENSTERN, LUTZ and others have adequately proved that in many cases the severity of the symptoms bears no relation to the number of parasites present *at any particular time*, and that the number of parasites found

to-day affords no sort of indication as to what numbers of parasites were present previously.

Looking into Dr. Donson's remarks and tables of the results of his examination of "hundreds of healthy looking coolies and other persons" the vast majority of the cases exhibit under 50 anchylostoma—a number altogether too small to have any deleterious effect—while in only *seven* cases do the numbers reach or exceed 100 of these parasites, and it becomes evident that he has not carefully determined and considered (1) the minimum number of parasites that will cause any symptoms after a *protracted* sojourn in the intestines, and (2) the length of time in the intestines that is necessary for even a large number of the parasites to produce anæmia or other serious symptoms: For had he estimated the numbers from the ova or treated the cases with thymol for more than one day and examined the fæces on the first, second and third day after the thymol, he would surely have found much larger numbers of the parasites than he says he did. Dr. Donson is therefore *not* justified in inferring or in asking the authorities to infer, as apparently he does, that because these coolies appeared healthy, notwithstanding the presence of the parasites even in large numbers (130 to 230) that therefore these parasites are harmless; for he has omitted to state or to even take into consideration *the length of time these parasites were in the intestines of these coolies.*

LUTZ has shown that when an exposed person *tardily* acquires the disease, the anchylostoma may be very limited for a long time, and their presence give rise to no symptoms whatever, while in the absence of complications, adults, in whom the disease runs a tolerably rapid and uniform course, seldom exhibit symptoms till the number of parasites passes into the hundreds, so that, when pronounced general symptoms are present, there may be from 300 to 500 anchylostoma in the duodenum. In severe cases LUTZ did not find over 1,000 present, but in the Gothard Epidemic as many as 2,000 and even 3,000 were found in one patient, and LEICHENSTERN (*Ceylon Medical Journal*, January 1892) found 253 of these parasites, in the bowels of a man who died of phthisis pulmonum four weeks after infection with anchylostoma, but who never had any intestinal symptoms and no signs of any special anæmia. GILES makes similar remarks in the *Indian Medical Gazette* of July 1892.

However faulty his deductions in other respects, Dr. Donson's figures *do* show the parasite to be most widely distributed, and that the affected persons had been, were, and would be, a direct source of danger to others as they were sowing the ova of this parasite to infect others or still further infect themselves for no matter how few parasites are present in any one, such person's stools must contain thousands of the ova, and if they defæcated on the surface of the ground, they undoubtedly spread the parasites to others, and of course those left behind in the villages were doing the same.

On page 30 of Volume I of the Transactions of the 1891 International Congress of Hygiene, Sir J. FAYRER says:—"Preventible disease still kills yearly about 125,000, and considering the large number of cases for every death it has been calculated that 75½ millions days of labor are lost annually, which means £77,50,000 per annum" (i.e., £50,000,000 or Rs. 12,40,00,000); while on page 243 Dr. LEWIS writes:—"Thus in [illegible] anchylostoma, filaria, and bil-harzia are veritable scourges to mankind—scourges of a kind that do not destroy at once like cholera or plague, but decimate slowly and deteriorate entire populations like malaria. To these scourges particularly I wish to call your attention with a view to devising means for their prevention." "I do not exaggerate (*Ceylon Medical Journal*, April 1892) in saying that it (anchylostomiasis) is a social plague only second to malaria and pellagra. It is also easily dealt with and may be prevented by simple means, and fortunately in the gravest form it is limited to certain workers. I may also say that it would not be impossible to destroy the fœci altogether: let us do what lies in our power to attain this object, and I request your valuable assistance in this direction."

As regards extensive prevalence and destruction of life and labor, anchylostomiasis is second only to malarial fever, and in a way is almost more important, as it is most prevalent in the estates, bazars and larger villages which are comparatively free from malaria, and to which people have ascended to escape from the deadly malaria of the low country, and it may therefore be said that anchylostomiasis substitutes the terrible malaria of the sparsely populated low-lying unhealthy divisions, and is almost equally prevalent and destructive in the higher portions of the provinces which are comparatively free from malaria. Hence it is imperative to check this widespread destruction of life and labor by penal enactments, preventing the pollution of the ground about dwelling on estates, &c., by the provision and proper cleansing of sufficient and suitable latrine accommodation and other sanitary measures which, though necessarily tentative owing to the ignorance and prejudices of the people who are to be benefited, must be the very minimum that science, reason and experience indicate as necessary to limit the spread, and mitigate the evils of, this terrible disease; so that the expense to Government and the interference with the people and their habits may also be the minimum actually necessary.

Whether there be a rhabditis stage or not, or whether the larvæ enter the intestines from the soil directly or from water matters but little as regards the steps necessary to prevent the spread of this parasite. If the infection be water-borne, which is hardly likely, it takes its infective properties from the soil, the proper step is to prevent the soil being infected. Similarly, if the infection be direct from the soil either by encysted larvæ in the free stage or by the parasite in a rhabditic stage, the only possible step is to prevent the fæces of persons, infected with the parasite, being scattered over the surface of the ground. This can only be done, by the use of properly kept latrines.

Trench latrines may do well enough for an Army on the march or for temporary gatherings of people, but they require too much space to be dry sufficiently near the houses of those expected to use them, and are also open to the risks of laziness or other prejudice leading to

their not being covered over daily with earth, (2) of children, especially, defæcating on their edges or on the ground round about them, rather than inside them, (3) of the larvæ or embryos being carried on the feet of the frequenters, and of fowls, dogs, etc., into the houses of the inhabitants, and (4) their contents being surely washed out during the rainy weather to pollute the water supply. The ordinary permanent bucket latrines are too costly to erect on a large scale and much too expensive to keep constantly clean and fit for use, and undesirable though cesspits are, the only alternative is the pit latrine, which is simply a long narrow deep pit with old railway rails and iron footplates over the top. The people should be led and induced, rather than compelled to use these latrines which should be constructed in sufficient number and propinquity to not involve too much trouble to the inhabitants to go to them, and if only a half or even one quarter only of the inhabitants used them, there would be an enormous improvement and advantage which would to that extent limit the spread not only of this but also of other diseases such as cholera, typhoid fever, &c. Power should, however, be created to punish any one himself committing, or allowing any one else to commit, a nuisance within 100 yards of his own or of any other house; *but such powers should seldom be used.*

The water supply, at its source, along its course and where delivered, should be protected from pollution and the natives encouraged to boil all their drinking water, so as to guard against parasitic diseases, cholera, malarial and paludal fevers, filariasis, &c.

As early cases of anæmia can be recognised by a doctor long before the patient is aware that he has a definite illness and as a single dose of thymol can prevent the chronic pernicious anæmia that drags a man, *too* late perhaps, to the hospital, one, two or three years after he begins to feel ill, all recruits for the native army and police, all Government coolies and native employees of all kinds, all children in Government schools and all estate laborers and factory hands should be examined more carefully than is at present done for the early symptoms of the disease, and if it existed in any marked degree, the sufferers should be detained and their fæces microscopically examined for ova, and if found, the person should be detained for further treatment and his village or possible place of infection registered for inspection, as far as possible, of the inhabitants of such places or villages with a view to similar examination and treatment if cases of anæmia be found among them.

That they *will* submit to periodical examination and treatment should be made an imperative condition of continued service with all Government native employment and with all estate and factory hands coming from or working in infected areas or having been at one time affected with anchylostomiasis, and numerous dispensaries should be, even temporarily, opened in all villages and places known to be centres of this disease and the inhabitants should be urged to have themselves treated by medical subordinates, specially made familiar with this disease and the use of thymol and male fern.

The following abstract of cases treated by (1) thymol alone, (2) male fern alone and (3) male fern one day and thymol the next, is really instructive:—

		Treated with			
		1 Thymol.	2 Male Fern.	3 Both.	Total.
Cured		32	40	31	103
Relieved or not improved		65	64	54	183
Died		19	20	2	41
Total treated ...		116	124	87	327
Percentage of total treated.	Cured ...	27·58	32·30	35·63	31·49
	Relieved or not improved	56·03	51·96	63·07	55·98
	Died ...	16·38	16·13	2·30	12·53
	Total treated ...	35·48	37·92	26·60	...
Percentage of total.	Cures ...	31·06	38·83	30·09	...
	Reliefs or Failures	35·51	34·97	29·50	...
	Deaths ...	46·34	48·78	4·87	...

The male fern was administered in 1½ drachm doses and the thymol, which was triturated and suspended in water to minimise absorption or prevent it altogether, was given in two 30-grain doses with two hours' interval between the first and second dose. Half or a quarter only of these doses were given to children or to weakly adults. The above figures would indicate that alternate doses of the drugs would ensure the best results, and that male fern is superior to thymol; but the results are, however, too close together to furnish data for preferring one drug to the other: except that besides being intensely disagreeable to take, thymol is a very dangerous drug. Its horrible taste and the burning excitement, giddiness, fainting and even vomiting, which it not infrequently produces, render patients loath to take it and many absolutely refuse the second dose. LEICHENSTERN records one case of fatal collapse due to thymol. SANDWITH records two, DOBSON one or two, and the writer of this note has to add three more cases to its list of mortality, as well as to add a word of caution against administering thymol in spirituous solutions or giving brandy or other spirits shortly after its administration. 30 grains of thymol, suspended in water, was given to a male patient at 7 A.M. As he exhibited no special symptoms after it, the nurse gave him his second dose of 30 grains at 9 A.M., at which time he was also supplied with a portion of the arrack he used to get at 9 A.M. as an extra, and which he swallowed immediately after the second dose of thymol. The result was that intense collapse set in almost at once, and in spite of all efforts to save him, the man died within 24 hours—the collapse manifestly being due to the arrack dissolving the thymol which was thus absorbed.

INFLAMMATION OF THE BLADDER. SOME POINTS IN ITS TREATMENT.*

By Surgn.-Capt. F. J. Crawford, M.D., M.Ch., D.P.H., I.M.S.
Madras.

This is not an uncommon affection in India, and the unsatisfactory character of its treatment induces me to make a few suggestions based on some cases recently under my care. The first thought occurring to the mind in reading through the literature of the subject is the extremely varied nature of the remedies recommended by different authors. Sedatives, stimulants, acids, astringents and antiseptics, internally by mouth and by vesical ablution, have all been at various times lauded in the treatment of this troublesome affection, their mere enumeration would fill many pages. Most of them, if not all, have, I contend, been recommended on inadequate grounds, and errors must have frequently crept in when appealing to statistics to prove their utility. The broad principles involved have not apparently been recognised, the necessary accompaniments to treatment have not had sufficient importance attached to them. It is by no means rare for a surgeon to spend care and discrimination in selecting his own pet lotions in their order of value, and finally to select what he thinks is the particular one which cures his patient. This remedy holds the field till the next case of the kind comes under his care, when he finds that the whole process must again be gone through The result is naturally disappointment and a fixed belief that the more such cases are permitted to avail themselves of the orthodox rest in bed, bland diet and *vis medicatrix naturæ* the better, though months must pass before distinct improvement sets in. Patients under these circumstances lose all faith in doctors and drugs, they wander from one medical man or institution to another, trying in passing a course of quack remedies which probably touch up slumbering chronic inflammation, and start renal troubles which attend them to their dying day.

Cases can be divided into two classes—the acute and the chronic. The acute cases, as a rule, do not present difficulty after careful exclusion of exciting causes, such as stone, kidney and prostate diseases, which must of course be treated before the bladder is capable of returning to its normal condition; while ordinary means readily relieve the pain, spasm and want of rest. Knowing, as we do, that the inflammation is more severe at the region of the trigone and consequently in close proximity to the sphincter, position with the pelvis raised most of the day, suppositories of opium and camphor with alkalies internally and leeches to the perineum will quickly control the serious symptoms. Vesical ablution is not generally advisable at this stage; if anything, plain water, which has been boiled, should alone be used. Under no circumstances should strong lotions be injected, whether astringent or antiseptic. Dilute solutions of cocaine might perhaps be of benefit in some bad cases, but I have found that the greatest pain is experienced when the sphincter spasmodically contracts, that is at the area of most acute inflammation both before and just after micturation—at times in fact when a local application of the drug is practically impossible. The bladder is then in a highly irritable and contracted state and resents most interference of this character. The urine should be maintained in a neutral condition and the liver and bowels frequently relieved by blue pill aloes and salines. The very acuteness in character of the symptoms gives us small scope for individual preference in the choice of remedies, general principles will be followed by success in overcoming their urgency. Regarding the use of the catheter, no rules can be laid down, each case must be treated on its merits, none should be passed however but rubber ones. Hot fomentations above the pubes and at the perineum are often of great benefit when the pain is severe. If bleeding should occur, it is if anything rather beneficial than otherwise.

It is when these cases lose their urgency and become chronic that they also become so intractable. During treatment patients are frequently permitted to walk about and resume their avocations, with probably some simple directions regarding food, diet and personal hygiene. The disease becomes confirmed and remains a source of annoyance to the patient for years and gradually converting the strong, healthy man into an invalid. He is willing, when periodical exacerbations occur, to lie up for a few days, perhaps a week, but on account of the usual unsatisfactory nature of the treatment along with, in too many cases, want of decision on the part of his doctor, he resumes his own way when temporary relief is obtained. In few cases I think is the distinction between *treatment* and *drugs* seem to such an extent as in the management of chronic vesical inflammation. The drugs and applications which are curative in one case will fail utterly in another for want of due appreciation of this fact. The system must be prepared for a systematic course of treatment. The digestion, which is often at fault, must be brought into order before special lines are followed; the state of the tongue, stomach and bowels must be looked to, and general evil tendencies corrected. It is not enough in these cases to simply purge our patient and give him a little tonic for some days. Assimilation will be judged by the character of the urine, by the general condition, and the presence of nervous troubles like headache, neuralgia, eye and ear symptoms and subjective sensations generally. A week or ten days at least must be allowed for this preliminary course. The giving of such special drugs as vesical sedatives and stimulants, salol &c, when a patient's digestion is out of order, as well as the internal economy generally is unscientific. This fact is emphasized during a satisfactory course of treatment in the way the bladder responds to such troubles when incidentally arising. A foul tongue will almost infallibly be found to be accompanied by relapse locally, so will an over-loaded bowel, so will a cold skin or cold extremities or a sudden chill. The irritable bladder seems to be acutely sensitive to internal troubles of other organs, due probably to changes in the character of the urine when increased waste products of an irritating character are present in it.

Our first efforts then must be directed towards impressing on patients the necessity for a prolonged course of treatment of which rest in bed is an essential part. At the same time we can assure them that if directions are

* Read before a meeting of the South of India Branch of the British Medical Association and sent to the *Record* for publication.

[illegible] in every way, [illegible] will certainly follow. This confident attitude on the medical attendant's part will prove of great value when [illegible] attends what must always be a tedious time for both doctor and patient. Confidence is justified in the fact that careful inquiry will elicit in cases of relapse, some neglect of apparently trivial orders. As long as the patient proves amenable and manages to divert his mind from his troubles, the course of the complaint will be progressively favorable. We must constantly supervise and vary the diet while keeping it of evenly unirritating and digestible kind. Milk is well borne in most cases at first, but later on it becomes distasteful, and therefore harmful if not varied and occasionally stopped even though for a day or two. The tongue is here our best guide. The skin should be kept uniformly warm, mild diaphoretics will be sometimes useful, in draughts rather than mixtures given in the late afternoon. The bowels and rectum will naturally involve daily inquiry. This detailed treatment is impossible without a good nurse during the day, and if possible, at night. Regular notes should be made to guide the doctor as to the amount of food taken, the medicine, and all other events during the twenty four hours. Temperature should be taken in the mouth, any rise above 99° or so being a signal for extra attention. The number of times urine is passed, the character of the pain and when felt, and disturbance of rest are all of importance. If the pelvis is kept raised on a pillow, relief is sometimes marked, and the patient will voluntarily assume that position whenever he lies down. The pain is of a two-fold character, either due to spasm of the sphincter from close proximity to a focus of inflammation or to spasm of the muscular wall of the contracted bladder. The first occurs just after micturation, and is referred by the patient to the perineum, the other occurs just before micturation from distension of the organ; it may be present off and on while the patient is awake and will wake him up at night in order to relieve himself. The urine is always passed very frequently when patients come under observation, as many as thirty times in the chronic forms of the disease. This is gradually reduced by treatment to fifteen, then to ten, and finally before passing from under observation the urine can be retained all night. After rendering the urine neutral in reaction by appropriate drugs—buchu infusion with hyoscyamus increases greatly the amount of urine and for a time (as much as a week), the urine is passed more frequently still, while the urgency of the actual pain becomes relieved. Salol is useful if the urine is of an irritating character. Copaiba, cubebs and turpentine will increase the urine and may be given in some cases for short periods. Smoking should be absolutely prohibited. Cold compresses will be found useful if applied above the pelvis to relieve the pain before and after micturation. Similarly with hot fomentations, so useful in acute cases.

The question of washing out the bladder has given rise to much discussion, and every possible antiseptic has been tried and with varying success. In chronically inflamed bladders, there is always contraction as well as spasm. Although the bladder is painful when distended by fluid inside, it apparently does not experience pain when irritating fluids like boracic acid lotion is injected. [illegible], however, does occur. Washing with such acid washes as diluted solution. There is the same objection to strong solutions of silver nitrate. If the experiment is tried in the same case with weak boracic acid lotion and a very little diluted solution of permanganate of potash, it will be found that the bladder can hold at a time twice the quantity of the permanganate. If the latter only be used, the bladder each day will gradually be induced to tolerate more and more till in a week six ounces can be retained when half that amount of urine must at once be got rid of. The object of this lotion is to accustom the irritable contracted bladder to retain a gradually increasing quantity of a bland lotion, on the same principle that full-sized catheters are passed into a urethra in a similar state. Besides its tonic effect on the muscular wall of the organ it has an alterative effect on the mucous membrane. This preparation of the bladder, to resume its healthy function and retain its normal quantity of fluid, is one of the most important parts of the local treatment. The urine, no matter how bland we make it, must always be irritating to an inflamed bladder, and it should be passed immediately there is inclination. No object is gained in getting a patient to retain it, gradual distension must be done with weak permanganate. The process consists in fact not so much in washing out the bladder (the washings after the first one are usually clean) as in this *education*, as it were, of the organ. In connection with this subject of bladder ablution, a fallacy is likely to creep in and mislead the surgeon as to the source of muco-pus in the urine unless the cystoscope is used as a means of diagnosis. In inflammation the urine, on standing, yields a sediment, varying from the light flocculent thready mucus of the long-standing case to the pus of the recent one. Though the deposit is quite apparent, it will be frequently noted that washings come away quite clean if the operation is undertaken after micturation. This is due to the fact that pus cells and mucus are gradually detached from the bladder wall and between times of micturation sufficient matter comes away to give the urine its characteristic appearance. The simple washing does not extend over a sufficient time for this to happen. The cystoscope readily shows this condition, semi-detached shreds are seen on the bladder wall, which gradually mingle with the lotion and presently obscure the mirror, leading to the supposition that their source is higher up.

In the foregoing remarks I have attempted to point out the difficulties experienced in treating inflammation of the bladder and some fallacies likely to arise during its course. The disease will always prove troublesome in spite of remedies and too often our efforts are not supported by the patient who considers that the individual skill of a particular surgeon is of greater moment than his own intelligent acquiescence during a necessarily tedious period. With general attention to the system however and local treatment of the mildest nature, I have found that improvement is progressive and certain, though gradual. Operative treatment such as cystotomy, I look upon as quite unjustifiable except for special reasons; it should not form a necessary part of the treatment. More than that it is unscientific, since nothing is gained by it except for the moment and later on it becomes a troublesome complication.

N.B.—At the meeting Surgeon-Colonel Branfoot alluded to the value of solution of morphine in relieving pain and spasm.

INTUBATION IN DIPHTHERIA.*

By W. K. Simpson, M.D.

Surgeon to the New York Eye and Ear Infirmary; Instructor in Diseases of the Nose and Throat in the College of Physicians and Surgeons, Columbia University.

The advent of intubation for the relief of diphtheritic croup marks one of the greatest achievements of modern medicine, and in connection with the antitoxin treatment materially lessens the mortality in diphtheria, as well as robs one of our most fatal diseases of its horrors. To Dr. O'Dwyer is due the honor of replacing tracheotomy by intubation which, to use his own words, he was led to employ because of the "complete failure with tracheotomy in the New York Foundling Hospital, extending over a period of several years."

Tracheotomy, even with its high mortality, *was the* recognised operation for laryngeal croup and as surely as no new operation to supplant a well-grounded procedure—however faulty—can thrive without passing through the crucible of criticism and severe testing; intubation, which has now rendered tracheotomy practically obsolete, was at first received with a great deal of scepticism, suspicion and opposition, all of which it has successfully overcome and its real battle waged and its glories were won long, long before the days of antitoxin.

The question of when to operate is always of vital importance, and especially so if antitoxin has not been employed; as in 60 per cent. of the cases of laryngeal diphtheria intubation is not required if reliable antitoxin has been properly administered at any early stage of the disease. If croupy symptoms supervene and progress the antitoxin should *not* be discontinued and the croupy symptoms be carefully watched, remembering that it sometimes requires 24 hours for the full effect of the antitoxin to be manifested: this is especially important if the symptoms of laryngeal stenosis are the first indication of the presence of diphtheria.

In either case the initial dose of antitoxin should be a full one, and if the symptoms of stenosis are progressive, intubation should be immediately performed: *never* in any instance wait for the severer symptoms of stenosis. After intubation, and until the membrane shows a marked tendency to foliate and the respiratory symptoms a tendency to disappear, the use of the antitoxin should be continued in gradually decreasing doses till the pulse temperature and other conditions become normal.

The technic of the Operation.—The proper-sized tube having been chosen and threaded with a piece of braided silk long enough to be looped over the patient's ear when the tube is in position. Two assistants are required, and both should be powerful men or strong women with cool heads. The patient sits on the left thigh of one assistant with his (or her) left side free and the right side pressed against the breast of the assistant who grips the patient's legs tightly between his own and passing his left hand round the patient's back secures his left arm and hand, while his right hand holds the patient's right hand firmly. The second assistant stands at the back of the patient, holds his head in a suspended position (with the neck perfectly straight) and steady the mouth gag.

Standing in front and a little to the right of the patient whose mouth is kept well open, the operator passes his left forefinger into the larynx, over the epiglottis, till he feels the tips of the arytenoid cartilages, when he quickly passes the introducing instrument (*i.e.*, the obturator) over the palmar tip of his left forefinger until the end of the tube engages deep in the larynx, when the tip of the forefinger is transferred to the head of the tube to keep it in position while the obturator is being withdrawn—care being taken to not remove the obturator from the tube until the latter is well down in the larynx, thus avoiding any danger of stripping off or wounding the mucous membrane.

Successful introduction of the tube is almost immediately rewarded by relief from the difficult breathing and the means of knowing that the tube is properly placed in the larynx are: (1) relief in breathing, (2) a characteristic moist metallic cough which immediately occurs and is valuable in clearing the trachea of secretions. This cough should always be looked for, and if not present, should be provoked by the administration of a teaspoonful of diluted brandy or whisky. In moribund cases this cough may be delayed or very feeble when it is heard. (3) Passing the left index-finger down into the œsophagus and feeling the tube through the anterior wall of the larynx is of great service if the breathing is not fully relieved, and it is desired to be positive as to the position of the tube.

If the breathing is not relieved or becomes suddenly worse after the introduction of the tube, it is possible that some detached membrane has been pushed down with the tube. This accident, which is not frequent, is more likely to occur in late cases of croup, where the membrane has begun to exfoliate and at any time when traumatism has been caused by the introduction of the tube. It is accompanied by a flapping sound caused by the loosened membrane and excessive coughing to dislodge it. When this happens or the breathing is not relieved, the tube should be withdrawn by the string and the patient encouraged to dislodge the loosened membrane by coughing, after which a second attempt at introduction should be made.

If it is reasonably certain that loose membrane is blocking the tube and cannot be readily expelled, a short cylindrical (foreign body) tube, which is larger in caliber than the intubation tubes, should be inserted, but it must not be left in the larynx for more than a few hours, owing to the pressure it causes.

Introduction of the tube into the œsophagus, which sometimes occurs, can be appreciated by (1) failure to relieve the difficult breathing and the patient's attempts to (2) vomit or (3) swallow the tube. If the string, which is attached to the tube, is observed to be disappearing down the mouth, it is evident that the tube is in the œsophagus and should be immediately withdrawn.

The tube may sometimes be swallowed when coughed up by the patient, or the end of it may be introduced into one of the ventricles of the larynx; but this latter accident may be avoided by keeping in the median line during in-

* Read at a meeting of the New York Academy of Medicine under the auspices of the Section on Laryngology and Rhinology and specially reported for the *Indian Medical Record*.

[illegible] the present type of hard rubber tubes [illegible] and permitting them to override the ventricle.

After the tube has been passed, the string should be allowed to remain in place—with the loop over the left ear—for 15 to 30 minutes, until quiet breathing is restored, when the string should be removed in this wise:—(1) Cut one side of the loop close to the mouth. (2) *Exert gentle downward pressure on the head of the tube with the left forefinger* (because the string becomes twisted in the mouth and unless counter-pressure be made, will entangle the eyelet and withdraw the tube) and taking hold of the long end of the string withdraw it with a gentle steady pull. Do not jerk it out.

How long the tube should be allowed to remain in the larynx depends on circumstances. In the pre-antitoxin days the average period was six to seven full days, but under the present mode of combined treatment the time varies from three to five days, though in a very small percentage of cases, after the original malady has ceased to exist, a more or less permanent stenosis necessitates almost constant use of the tube for periods varying from a few days to some months. Paralysis of the vocal cords may possibly furnish an exceptional cause of this persistent stenosis (following intubation in laryngeal diphtheria) which is almost invariably due to traumatism from injury to the larynx by (1) an ill-fitting or (2) imperfectly constructed tube, or from (3) a perfect tube which is too large for the lumen of the larynx, or from (4) a well-made and perfectly fitting tube that is not cleaned at proper intervals. The seat of the lesion, which keeps up this stenosis, is just below the vocal cords in the subglottic division of the larynx or that portion bounded by the cricoid cartilage; but exceptions to this rule result from injury produced by the head of the tube on either side of the base of the epiglottis just above the ventricular bands.

The hard rubber tubes now in vogue can not only be worn indefinitely without the occurrence of the calcareous granules which, appearing on the metal tubes, often became foci of ulceration, but their impinging points also do not produce the same degree of pressure as do the metal tubes.

The chief indication for removing the tubes previous to their final removal are severe discomfort or pain from pressure—if the pain be radiating in character it indicates the presence of ulceration—, severe attacks of coughing and sudden stenosis due to lodgment of membrane in the lumen of the tube. This last is more likely to arise earlier under antitoxin treatment, which causes earlier exfoliation of the membrane and in some instances, where it does not fit tightly, the tube is likely to be coughed up with the loosened membrane. The necessity for re-introducing the tube—in such a case—does *not* always arise or at any rate it will, as a rule, be sufficiently delayed to permit re-introduction by the physician in charge.

Feeding after intubation should be restricted to fluid or semi-solid food, and is *best* accomplished in the Casselberry position, which consists in keeping the patient in an inclined position, with the head down,—effected by raising the foot of the bed and removing the pillow,—and feeding through an ordinary duck-shaped feeding cup, so as to prevent fluids entering the [illegible] paroxysms of coughing. If the patient [illegible] conveniently, he may be fed through the œsophageal catheter passed through either the nose or the mouth, or as a last resort rectal alimentation may be employed.

To extract the tube the patient must be placed in the same position as for its introduction; but the operation is more difficult since it requires a finer degree of touch to determine the opening in the head of the tube, and the difficulty is enhanced in proportion to the smallness of the tube. In extracting the left forefinger is passed down till the opening in the head of the tube is felt and then the 'extractor,' with its joins closed and thumb-screw so set that the proximal jaw can open just sufficiently to exert the proper amount of pressure within the opening in the tube, is passed down till its point strikes the head of the tube and enters the opening in front of the tip of the finger, when the joins of the instrument are opened by thumb pressure on its handle and the tube withdrawn.

Where an extractor is not obtainable, or in cases of emergency when the tube *must* be removed by the nurse in the absence of the surgeon, slightly invert the patient, whose mouth must be kept wide open, and placing the thumb in the episternal notch push the tube up into the mouth where it may be grapped with the fingers of the free hand or with a pair of ordinary forceps and removed.

After removal of the tube the patient should not be left until there is sufficient evidence that the tube will not have to be replaced. A small opiate may then be given to allay cough and irritation. Slight cough and hoarseness generally continue a few days to a fortnight and pass away without incident.

The prognosis under combined intubation and antitoxin is remarkably favorable, especially when compared with the results formerly obtained, where 69 5 to 75 per cent. of mortality is now reduced to 27 24 per cent., and there is no doubt that the prognosis will continue to be even more favorable as there is gained a better understanding of the combined treatment.

It is most important to watch the respirations during the entire period of intubation as bearing on the progress of the disease If they continue normal, or nearly so, favorable progress is indicated, but if they show a tendency to increased rapidity, extension of the membrane is indicated—fortunately this latter does not occur as frequently as it did in pre-antitoxin days.

In a very small number of cases intubation fails and tracheotomy becomes necessary; but the percentage of recoveries, when this has been done, has been small indeed and conditions have been found which could hardly be reached by either operation.

In conclusion, intubation has not only given us a comparatively simple means of combating a dearth emergency and taught us exploration of the larynx by the finger, but by teaching the mind and hand to work in quickest harmony; it has also taught us alertness and deftness in meeting emergencies, as well as opened up and created anew the treatment of the entire domain of laryngeal stenosis.

A MIRROR OF PRACTICE.

THREE CASES OF LIGHTNING STROKE AT DARJEELING: RECOVERY.*

By Surgeon-Major R. R. H. Moore, M.D., T.C.D., A.M.S.
Jalapahar, Darjeeling.

On the 29th March 1898, my wife and I and a native servant were struck by lightning in our house at Jalapahar, Darjeeling, under the following circumstances:—

The house has a corrugated iron roof to which is attached two copper lightning conductors; these are connected with the ground at the back of the house. There is no connection between the iron roof and the ground in front.

The way in which the conductors are fixed on the roof is peculiar; they do not rise from the highest point, or ridge, but from the front slope of the roof about half way between the ridge and the eave; the connecting band then passes upwards over the ridge and down the back to the ground.

At the front of the house is a small porch, entered from the house by three steps; the eave of the porch is seven feet from the ground and the roof is a single layer of corrugated iron.

At about 4-30 P.M. we were all standing, with two dogs, in this porch watching a thunderstorm coming up the opposite valley. I was facing the glass door and quite close to it, the *chuprassi* was about a yard to my left, and my wife and dogs were on the steps behind, when, without a moment's warning, we were all struck down unconscious.

The unconsciousness does not appear to have been absolutely instantaneous, for both my wife and the chuprassi saw the other two fall. I first of all swung round to the left, then fell backwards; in doing so I saw the chuprassi also fall. I did not hear any report, nor had I any knowledge of what had happened until I recovered consciousness.

There was no one standing by to see what happened, so it is impossible to say how long we remained in this condition. My wife was the first to recover and called me, but at first I did not hear. When I recovered consciousness I heard her calling me. I then realised what had happened. I was very dazed and not in the least inclined to move, so I lay where I was, feeling and congratulating myself in a sort of wonder, that I was all right; though I must confess that the thought uppermost in my mind was a sort of sickly resentment against such an uncalled-for and unnecessary calamity. In the meantime the chuprassi was lying outstretched on the floor as if dead. The dogs had given a few yelps and run away.

Nature of Injuries.—My wife's right arm was paralysed and numbed for about ten minutes, after which it got gradually quite well, from an inch above the bend of the elbow straight down the front of the arm to the wrist there was a well-defined lightning mark, in the lower two-thirds of the arm there was a clearly marked arborescent pattern, in the upper part the line was single; the markings were red, like a burn of the first degree; it lasted four days.

In addition both feet were numbed, the nervous shock was very slight, and she hardly suffered at all from any after-effects.

My feet were also numbed; and I had the sensation of having received a very severe blow on the back of the head. I had two slight red marks over the right temple and one over the right eyelid. I suffered very severely from pain in the head and down the back, all that night; my eye was painful, congested and very irritable, and there was profuse lachrymation. The right side of my nose was swollen and gave the sensation accompanying catarrh.

My eye continued irritable and bloodshot for seven days; the irritability was relieved by dropping into it a weak solution of cocaine about every half hour.

The pains in the head lasted more or less for ten days; there was considerable nervous prostration at first, and I was easily fatigued by any mental or physical exertion; this slowly and gradually passed away.

The injuries received by the *chuprassi* were more serious: when I crawled over to him he was not breathing; the other servants were just lifting him, and he appeared quite lifeless. I thought he was dead; and, as a matter of form, felt his pulse; to my surprise it was beating steadily and strongly. At that moment he gave his first gasp, after a few irregular gasps his breathing became re-established. For a time he lay quiet, then convulsions came on, and three servants could hardly restrain him, while he uttered incoherent cries occasionally.

He was in this state for almost an hour before he recovered consciousness.

He had a well-defined triangular shaped burn on the forehead, extending from the outer angle of each eye to the centre and top of the forehead, over this area there was a burn of the second degree, and all the cuticle turned black and peeled off subsequently, both eyebrows and eyelashes were completely burnt away. The eyelids became very swollen, the eyeballs deeply congested, and there was a distinct whitish film over the left cornea, which, however, completely cleared up; the nose was increased to double its ordinary size.

Another burn extended, in a line half an inch broad, from close to the centre and top of the temporal bone round his face close in front of the left ear, then under the chin, then downwards again and to the right, where it ended in splashes about the right nipple, the hair along this line was destroyed, and where it began the whole thickness of the skin was burnt through. He also had a circular burn on his chest corresponding to the place beneath his brass *chuprassi's* badge.

He complained chiefly of pains in the head, back, shoulders and down both arms; there was profuse lachrymation from both eyes. Cocaine half a grain injected twice a day, gave more relief than morphia. The acute symptoms lasted over a week, they then gradually subsided; the congestion of the eyes was very persistent, though excepting the slight haziness mentioned, nothing could be seen to account for it.

The smell attending a lightning flash is generally described as sulphurous, it was not so in this case; it was the smell given off by read hot iron when a drop of water is thrown on it; the smell and taste remained with me for several days; it was perfectly familiar to me, and any one can reproduce it for himself if he likes to touch his tongue

* These excellent clinical notes of cases of lightning stroke are extremely interesting and are most valuable, as not only are they the personal experiences of a physician, but they are so complete and perfect in all necessary details so as to make their record quite unique, as instances of lightning stroke are rare enough an occurrence and still more rarely are they reported in this scientific manner.—Ed., *I. M. R.*

[illegible] a foot [illegible] of iron, slip a piece; this last I have frequently performed.

In the usual [illegible] conditions, there would appear to [illegible] two different [illegible] from the ground and one from the roof. I felt the tingling in my feet as the electric fluid was passing, but beyond the fact that I felt a vibration in the ground, I recollect nothing.

It appears to me that a strong charge of electricity must have accumulated on the iron roof which could not readily pass to the ground as there was no conductor in front, and that in making its way as best it could, some effluents or splashes struck us, our hands were not far from the roof. The dogs, I think, could only have been affected by the electricity in the ground and the shock they received was proportionately small.

I may add that none of us saw any flash.

A CASE OF TRUE PLAGUE TREATED ON ORDINARY PRINCIPLES.

By JOHN E. PANIOTY, L.R.C.P. Lond., L.R.C.P. & S. Edin.
Resident Surgeon, in charge Chandni Hospital, Calcutta.

A HINDOO punkah coolie named SANU, aged about 17 years, was brought to the Chandney Hospital in a hired carriage from 6, Crooked Lane, at about 1-15 A.M. on the 13th May, and was admitted as an in-patient.

He was in an unconscious state, and when roused with difficulty, answered questions incoherently, relapsing into unconsciousness. He had a stupid and anxious look and from his mouth issued a viscid frothy mucous. He had all the appearance of a drunken person, and as if he had not slept for some days. His conjunctivæ were intensely congested, and did not respond to the touch. He lay on his right side with both legs drawn up, quite unconscious of what was taking place. He had a soft painful enlarged gland of the size of a walnut on his right groin which, whenever touched, seemed to give him a shock as if from a battery. His internal organs were in a healthy condition. He had involuntary stools and constant vomiting. His temperature was 103·6° at the time of his admission.

I asked Dr. SANDERS, the Surgeon Superintendent, Mayo Native Hospital, to come and see the case. Dr. SANDERS, accompanied by Dr. COOK, the Health Officer, came to see the patient at 7 A.M.

The patient was then quite comatose; his conjunctivæ were as before congested. He lay mostly on his right side, never on his back, and his face wore an expression of fear. His temperature had risen to 105·6°F. The pulse was weak, frequent, and small. The thumbs were flexed on the palms and both hands were turned inwards and were rigid. The gland was more painful and the skin covering it was red and warm. There was also a diffuse swelling round the gland.

He was able to open his mouth a little, but could not protrude his tongue. He was moaning. There were no marks of chancres on his penis, nor had he gonorrhœa. Drs. SANDERS and COOK pronounced the case as one of true plague, and at the suggestion of the former the patient was [illegible] to hospital in a room where he was kept quite isolated.

Sheets soaked in perchloride of mercury lotion (1 in 2,000) were hung at all the doors and windows of the room. Ice was applied to the head and 5 grs. of calomel with 10 grs. of soda was put on his tongue at once. He was ordered to be sponged down every two hours with vinegar and tepid water to which a little of the perchloride lotion was added. The spittle from his mouth was mopped up with pieces of cloth dipped in the same lotion and burnt immediately after use. Nothing was applied to the painful gland.

At 2 P.M. the temperature was 105·4°. All the other symptoms continuing. As he could not swallow nutrient, stimulant, peptonised enemas were ordered every two hours.

He passed a stool in the bed clothes. The stool was disinfected with the mercury lotion. At 7 P.M. the temperature fell to 104·6; the other symptoms remaining as before.

14th May 1898.—At 7 A.M. the temperature was 102°F. His pulse was feeble and frequent. He regained some consciousness, and looked up when spoken to, but could not speak. He could only protrude the tip of his tongue. The right eye was slightly clear, but the left continued, was still red from congestion. He had a slight cough. The gland was very tender.

At 8 P.M. the temperature was 101°F. The pulse, though not so frequent as before, was still very weak. He was more conscious and when asked to put out his tongue, he did so with difficulty and in a jerky way.

This was the first occasion on which the tongue was seen. It was dry and covered with a thick white coating fur, but its edges and tip were moist and of a red color The teeth were covered with sordes. He was now able to swallow and lie on either side as well as on his back. His eyes were clearer. He was not moved. His mouth was swabbed with borax and glycerine and he was put on liquor hydrargyri perchloridi 3ss., liquor strychniæ B. P. mjii, Aqua ad. ℥i t.d. To-day was for the first time he drank some milk. At 7 30 P.M. the temperature fell to 100·2°F. He was quite conscious but answered questions incoherently; his speech being thick, drawling and hesitating. He asked for tobacco.

15th May 1898.—The patient was improving. The temperature fell to 99°F. The tongue had a healthier appearance; there being only a thin coating of white fur here and there over its surface His appetite was better. The bubo, though still painful, was larger in size than on the day of admission, but it showed no signs of fluctuation. The stupid look noticed at first had not yet disappeared. The hesitating speech also continued. The temperature remained 99°F. all day, but at 8 P.M. it rose to 101°F, preceded by a slight rigor. The patient looked dazed. There was muttering delirium and at times he sang. The pulse, which had improved, became weaker. A bromide draught had the desired effect of quieting him.

16th May 1898.—At 7 A.M. the temperature fell to 99·4°F., but rose to 102°F. at 3 P.M. The low muttering delirium continued; the tongue was moist and clear, and his eyes were clearing up. During the day he was alternately calm and boisterous. At 9 P.M. his pulse was very weak. The following mixture was given him:—

Liq. Hydrargyri Perchloridi	...	...	...	mx.
Liq. Strychniæ	...	...	...	mj. ff.
Aquæ	...	ad	...	℥i t.d.

17th May 1898.—In the morning the temperature came down to 99°. The general condition of the patient had not however improved. He was alternately violent and calm, the low muttering delirium continued, and the breathing was easy. The bubo was smaller, though still very painful to the touch. He continued in this state all day The temperature rose to 100° at 2 P. M and 102° at 9 P M. He did not however refuse food.

The bromide mixture was given every four hours, and the mercury mixture was discontinued.

18th May 1898.—The patient was better as regards most of the symptoms, though the *pulse* was in a very low state. He answered questions rationally, yet talked nonsense at times He spoke slowly, drawling out his words. The bubo continued to be smaller, but there are no signs of fluctuation. He was given

Tr Strophanthi	...	...	mxii
Liq Strychniæ	...	...	mxiii
Aquæ	...	...	℥i t d.

And oleate of mercury ointment was applied to the bubo

At 3 P M there was a marked improvement. He was not delirious The tongue was moist and clean. He had one stool after the glycerine enema, which had been given at noon that day. The temperature, which had risen to 99° F, fell to 98° at 9-30 P M.

19th May 1898—The patient continues to improve The temperature was 98° in the morning, 100 6 at 3 P M, and 99·2 at 9 30 P M There were no signs of fluctuation in the bubo.

20th May 1898—Continued to improve. Speech is not so thick and less hesitating than before Pulse has improved. The bubo is soft. There is no fever

21st May.—Improvement continued. Bubo soft. No fever.

24th May.—Bubo more prominent and fluctuating. No fever.

Dr. SANDERS opened the bubo antiseptically, injecting the cavity with strong tincture of iodine. Sanious pus was received into a basin containing a little perchloride of mercury lotion. Strips of bandage cloth soaked in perchloride lotion were used to wipe the wound. The wound was dusted with iodoform and bandaged with a pad of mercurial gauze and absorbent cotton. All the dressings, &c., were put into the basin soaked with perchloride and were immediately burnt.

30th May.—The patient has made uninterrupted progress from the date of the last report. The temperature has been normal; his appetite has improved, and he is daily gaining strength. The bubo is daily dressed antiseptically and has now almost healed. He experiences no inconvenience in sitting or standing.

Remarks.—The stupid look of the patient, the intense injection of the conjunctivæ, relapsing unconsciousness, the incurving of the thumbs and hands which were rigid, the painful nature of the glandular swelling in the right groin, which was of the size of a walnut with a diffuse swelling all round it, and the skin covering the gland being warm and of a red color, involuntary motions, the persistent vomiting, the cough and high fever all pointed to the case being one of true plague. There were no signs of any venereal disease. The diagnosis was confirmed with the progress of the case, and by the fact that when the patient did put out his tongue, he did so with difficulty, only in a jerky way and from the condition of the tongue already described. No symptoms of plague or malignant fever have developed among the hospital assistants who attended the plague case and all the other patients as well, and the people attending the out-door department of the Chandney Hospital and even among the in-patients. The disinfectants used and the precautions taken were such as could be employed in every case. These were the hanging of antiseptic screens, disinfection of the hands of the attendants before going into and after coming out of the room, and the burning of all articles of clothing and bedding and excreta of the patient. The cost is so moderate that it is within the means of most, if not all, people. It may therefore be reasonably inferred that plague is neither infectious nor contagious, and that a person may be treated at his own house, provided there be a room in which he could be cared for as in the previous case.

PECULIAR DOUBLE STONE CASE · ONE STONE ENCYSTED IN UPPER AND ANTERIOR WALL OF BLADDER SUCCESSFUL LITHOTRITY.

BY WM HUNTLY, M A, M D., B SC.
Nusserabad.

THE patient was a Mahomedan, aged somewhere between fifty and sixty. His face bore the look of suffering, and his chief complaint was pain in one particular spot half an inch behind the glans penis He believed, and had been told by many hakeems, that he had gonorrhœa and, so far as he could remember, the trouble had existed over five or six years.

On pressing the urethra at the spot indicated, the patient winced, and I passed a catheter with a view to find out if there was a stricture of any kind present Finding no stricture, I went on to the bladder to see if any stone were present, and the catheter ran alongside a decidedly large one.

Guessing it at about three ounce weight, on consideration it was decided to crush and evacuate.

On the morning of the operation the patient was again persistent in his statement that the trouble was at the aforementioned spot and had nothing to do with stone. The stone which seemed to resemble in shape an egg, gave some trouble before it was caught in the lithotrite, and it was with difficulty that the blades grasped it, seeing that in one position the interval between the male and female blade was so wide as to preclude the locking of them.

When once broken the breaking of the fragments went on apace, but now and then I found the blades catching what I thought the half of the stone and repeatedly slipping off.

Evacuating the fragments I still had the same experience of the slipping, and also found that the supposed piece always seemed to fall to the right side of the bladder.

I realised that I might be dealing with a second and an encysted calculus, and so made careful and repeated attempts to dislodge. This failed and tracing with the point of the lithotrite I found that there existed an oval

stone in the right wall of the bladder. The stone, when pressed up by the lithotrite, could be readily felt with the finger pressed a little to the right of the middle line of the abdomen just below the symphysis pubis and the umbilicus.

Thus there was a most unusual state of things to account for, a stone deeply encysted in the upper and anterior wall of the bladder, and the bladder evidently enlarged. The usual place for an encysted stone is at the lower and posterior aspect of the bladder, and it is an interesting question as to the origin of this encysted stone.

The probabilities are that the stone, which I crushed, and which weighed fully 2½ ounces, was first in the bladder. Violent straining or some other cause may have injured the wall and so a nidus for the deposit of layers of stone may have been prepared. Or what is more likely, a small nucleus has become embedded in an inflamed mucous membrane with the gradual formation of the mass in that position. I was not permitted to cut, through the special desire of the patient, and so had to forego the suprapubic operation.

FRACTURE OF LIMBS AND SKULL RECOVERY.

By Ram Dhari Sinha, L.M.S., M.M.A.
In medical charge, Civil Hospital, Mubu Road

M., a girl *æt.* 6 years, was brought by her relatives to the Civil Hospital in an unconscious state on the 14th June 1894 at 12-15 (noon).

History related by her relatives.—The girl, while running upstairs, fell from a height about 31 feet and received the following injuries (1) Simple fracture of lower extremity of left radius (*Colles'*); (2) dislocation of the left elbow joint (backward dislocation of ulna only), and (3) simple fracture of the skull at the superciliary ridge of the left frontal bone.

Condition on admission (half an hour after the accident).—She was totally insensible; her respirations were stertorous and sighing; pulse slow and labored, pupils were dilated and her spinal sense paralysed. There was ecchymosis on the subconjunctival and superciliary regions. She could not answer questions put to her. Temperature was subnormal.

Treatment.—The injured limb was attended to. The patient was confined to bed and her head was well raised. I at once incised the ecchymosed spot at the superciliary ridge. About an ounce of thick, black (*coagulated*) blood was made to flow, whereby the girl began to rally, moved her limbs and head. Ice was freely applied to her head. The wound was antiseptically dressed and the fracture and dislocation treated appropriately. The following was injected hypodermically as she could not swallow anything.—

R.	Quinæ Sulphat	...	... gr. ij
	Liq. Strychniæ Hydrochlorat	...	mlij
	Ether Sulph.	...	... mv
	Mist. Camphoræ	...	... mxx

After an hour she began to cry but her voice was almost inaudible. The following mixture was ordered and continued till her recovery:—

R	Pot. Bromidi	...	... gr. v
	Pot. Iodidi	...	... gr. iij
	Mist. Camphoræ (*iced*)		ad ʒi

Every three hours together with iced milk. The evening temperature rose to 100°F., condition improved, but she could not answer questions. Her special sense still dull and apathetic.

On the 15th June 1897, the morning temperature was 99·6°F., looked merry, no stool nor urine was voided. The same mixture every three hours was continued with milk and sago. Ice to head and iced water as drink. Six leeches were applied on the ecchymosed left upper lid after which she could open the eye. Arnica lotion was instilled in the affected eye. There was motor improvement, but she was allowed to move.

On the 16th June 1897, temperature normal, no stool nor urination since the accident. An enema of castor oil was given with the result that she passed several small *scybalæ*; she passed urine after two hours with another voluntary stool (*catheter not used as her relatives objected*). The mixture and milk and sago diet continued, with ice on the head. She seemed better but could not speak; she turned her head to indicate "*yes*" or "*no*."

On the 17th June 1897, she was well and was playing with her brother and sisters. The defæcation and urination became normal, but she was still dumb. The diet was changed for rice and milk. Her relatives requested to take her home, and I allowed them on the condition that she should attend the out door hospital for change of dressing. After five days of her discharge, she began to speak audibly. The wound healed by the first intention, and the fracture and dislocation were making rapid progress towards recovery.

Remarks.—The above case is interesting for the following reasons:—(1) That the wound received at the left superciliary ridge injured the posterior part of the inferior frontal convolutions and lower end of that of the ascending; hence aphasia for more than a week, (2) suppression of stools and urine for three days, due probably to the implication of inferior portion of the spinal nerves by *contre coup*, and (3) the immense value of the ice application in the surgery of head.

MAGNESIUM SULPHATE IN DYSENTERY,

By J Morton, M.D., L.R.C.P. & S. Edin.
Mussoorie.

A great deal has been written of late on the treatment of dysentery, and especially by magnesium sulphate. A quotation in *The Lancet* proves that this drug was used nearly a century ago for a similar purpose. The credit, however, of reviving it must be given to Surgeon-Major Leahy of the Indian Medical Service. Dr. Wyat-Smith also may fairly lay a similar claim. This is academic and may be settled at some future time. I simply desire in this note to publish some cases of mine, as an encouragement to others to regard sulphate of magnesium as the remedy *par excellence* for acute dysentery. Last year and the year before epidemics of acute dysentery broke out among the pupils of St. Fidelis's Military Orphanage, of which I have medical charge, 41 cases were treated in 1895, and 35 cases in 1896, by a *saturated solution of sulphate of magnesium in teaspoonful doses* given every hour with very happy results. The stools lost their dysenteric character on an average in about 48 hours. The diet consisted principally of milk preparations, and especially

strychnine in milk, which I consider of great value. Previous to adopting this treatment, I had tried large doses of ipecac, then ipecac nine emetine, and a host of the older drugs with very disappointing and two fatal results. I noticed a slight tendency to diarrhœa after the magnesia treatment, but this rapidly subsided under the following mixture :—

R	Acid Sulph. Aromat.	...	3ii
	Tinct. Gentian	...	3iss
	Inf. Gentian Co. ad	...	3viii

Fiat mist.

Two tablespoonful (in adolescents) every three hours.

MORBID GROWTH OF CONJUNCTIVAL TISSUE. OPERATION ; RECOVERY.

By Jaggannath, L.M.S

Lahore.

A. B., an aged man of about sixty years, came to me some days ago for advice about a morbid growth of the conjunctival tissue with the tissue beneath in his left eye. The growth was of a peculiar shape, having nothing like that of ordinary pterygium though superficial like it but a little thicker with slightly injected vessels on its sides.

The removal of the above growth was considered advisable, and what I did was that I snipped the end of the growth which was on the cornea opposite the pupil, but as it bled much more than what was expected, I did not think it proper to do anything more than ligaturing the growth tightly near the attached end and then washing it with boracic lotion and tying up a tight bandage on the eye, asking the man to keep the pad under the bandage wet with the lotion and to come to me if there was any trouble. The man came to me two days after, the cornea from over which the growth was snipped was quite clear ; there was no bleeding and the growth had quite shrivelled. I cleaned the eye and asked the man to come four days after, which he did. The thin shrivelled growth had fallen off, the ligature was absent, and the only thing left was a trace of the growth on the place of its attachment.

HYSTERICAL *VERSUS* TRUE PERITONITIS.

Thesis is given in this article a very good comparison between hysterical simulated peritonitis and true peritonitis. Simulation of acute diffused peritonitis by the hysteric is of rare occurrence, but in neuropathic women the localised inflammatory affections are sometimes very closely counterfeited. In hysterical peritonitis the pain usually predominates in the left side of the body. It often develoops and ceases, like other hysterical symptoms, under the influence of moral impressions. In hysterical peritonitis a slight touch of the skin produces more distress than deep pressure, although in neuropathic patients deep pressure in the hypochondriac region causes intense suffering. In hysterical peritonitis there is often vomiting, but never nausea. The vomiting does not become fecal. The pulse and temperature in counterfeit peritonitis are usually about normal. —*Chic. Jour.*

THE

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PLAGUE SERUMS.

Prophylactic and Curative.

As some misunderstanding appears to have arisen regarding the different plague serums mentioned from time to time in the press, it may be as well to clear up all doubt on the matter by giving a brief description of each of them and its object.

There are two distinct classes of serum ; one prophylactic or preventative, the other curative ; the former is used to prevent people getting the plague, the latter to cure them of the disease after it has been contracted.

Prophylactic Serum.

There is only one prophylactic serum, that of Mons. W. M. Haffkine ; the theory upon which its use is based and the method of its preparation were fully described in the issue of this journal for 16th December 1897, where also will be found an account of its successful employment in Damaun , further particulars of its success at Undhera, Taluka Baroda, will be found in this number.

Curative Serums

There are three different curative serums, *viz.*, Mons Haffkine's, Mons Yersin's, and Professor Lustig's.

Treatment by means of these serums cannot be said to have had satisfactory results.

Mons. Haffkine's curative serum does not appear to have been more successful than the other two; this want of success was freely acknowledged by him and published widely in the papers, with the result that many, not distinguishing between the curative and prophylactic serums, took this as a confessed failure of the latter.

Mons. Haffkine, probably, seeing that no good results were likely to be gained by curative serums, did not pursue his investigations further in this direction, but confined his efforts to the perfecting of his prophylactic serum, which has been used on an unprecedented scale, and has given uniformly good results.

Khan Bahadur N. H. Choksy, in his "Report on Bubonic Plague," based on observations at Arthur Road, Bombay, alludes to these curative serums in the following terms :—

"Sero-therapy was tried on an extremely limited scale and the serums that were used were those of Professor W. M. Haffkine, C.I.E., and of Dr. Yersin ; also a serum prepared in Russia according to Yersin's method, and that of Professor Lustig of Florence ; both Professors Haffkine's and Lustig's serums were what may be called experimental and by no means perfected, and both the professors, before giving them a trial, disclaimed anything like finality or perfection, either in their mode of preparation or application. Fifteen cases in all were injected by Professor Haffkine ; of these 9 were cured and 6 died ; 14 of these were acute cases, of which 6 died and 8 recovered. The other case was that making favorable progress, although fairly convalescent, and the serum was injected with a view to hasten his recovery.

and he recovered." The usual routine treatment was not stopped in these cases.

"YERSIN'S serum, which was said to effect miraculous cures, was tried only in three very early cases, which alone Dr. YERSIN considered amenable to his serum. The mildest of them recovered after a very long and protracted convalescence, the two others dying within 24 hours of the injection."

"The Russian serum, prepared according to Dr. YERSIN'S method, was tried by Professor LEWIN of the Royal Military Academy of St. Petersburg, it failed to show any results even in a single case, as all the cases injected with it died."

Professor LUSTIG'S serum was tried in six very serious cases during June and July, and the result of the treatment was exceedingly satisfactory. All the six cases so treated recovered. Even if it be assumed that the cases, though severe, were in the decline of the epidemic, and therefore less virulent, still the cent. per cent. recovery rate is remarkable and shows distinctly that the serum had an extremely favorable influence. The usual routine treatment was followed in these cases."

Dr. YERSIN'S curative serum was prepared in the same way as anti-diphtheritic serum, that is by immunising horses against plague by the injection of prepared cultivations of the plague bacillus, and then drawing off the serum from them.

In addition to horses Mons. HAFFKINE appears to have used a number of other animals.

In the treatment of plague cases by these serums, as we have said, no very definite results were obtained; one reason that is put forward to account for this is that the serums actually used were too weak.

The following are the conclusions expressed by the German Plague Commission on Dr. YERSIN'S serum.—

The experiments made on monkeys with strong serum showed it to possess undoubted curative properties, though, of course, this can only be held to apply to the animals on which the experiments were made.

Whether a similar curative action can be attained in the case of man must not, as the observations made on the similarly sensitive grey monkeys show, be rashly concluded, but must be found out by observations on men sick of the plague. In such cases it seems that up to the present only the weaker sorts of serum have been used.

The Russian Commission also experimented on monkeys and made the following statements:—

"Our experiments in this direction conducted on 95 monkeys demonstrate:

(1). YERSIN'S serum can cure sick monkeys, when the treatment has been begun two days after the animals have been infected subcutaneously, and when the symptoms of plague have already shown themselves by elevation of temperature, buboes, etc.

(2). Serum treatment is not successful when begun too late, say 24 hours before death, in the monkeys used for control experiment.

(3). The quantity of serum necessary to cure monkeys is not very large; as a rule, it was sufficient to inject 20cc. of a serum whose strength was equal to $\frac{1}{10}$.

(4). If the quantity of serum injected is too small or if the treatment is begun too late, a cure may be obtained but sometimes the cure is only apparent and a relapse may occur which causes death in 15 to 17 days.

The members of the Russian Committee commented favorably on the YERSIN treatment. They say:—"As regards the treatment of the sick by YERSIN'S serum, we must say that in several cases we have been able to observe interesting and striking effects from its action. After the injection the temperature falls, drowsiness or delirium disappears, and the patient feels more comfortable. In general the results have not been as good as we could have wished, they have, however, reduced the mortality to 40 per cent. on those treated."

"Our experiences have, however, shown us that the serum has an undoubtedly good effect, the high death-rate is explained by the following causes:—

(1). The sick only come to the hospital four or five days after the beginning of the disease; this is very late.

(2). We cannot tell how long the patient has been ill; the intensity is not the same in each case. Some die in 24 hours; others live for 24 days.

(3). Men exhibit great variations in their susceptibility to infection. Monkeys are more uniform in this respect.

(4). In cases of pneumonic plague, the difficulty in obtaining a cure is often explained by the presence of other bacilli, pneumococcus and streptococcus.

(5). We hope to obtain better results with the antitoxin that Dr. ROUX has prepared, what has been used hitherto is more preventative than antitoxic.

(6). When a remedy has succeeded in saving even a few lives, it is enough to attract attention to it and to lend interest to its study. In reality YERSIN'S serum has saved a great number, and we must advocate his method of treatment very warmly. The serum is the only remedy known for plague up to the present time.

Dr. BITTER'S opinion of YERSIN'S serum is, however, unfavorable, he says:

In addition the specific treatment by the injection of YERSIN'S anti-plague serum has not, as far as I know, given any conclusive results. On theoretical grounds it appears to me necessary to make the following remarks which demonstrate that the statistics of successful sero-therapy must be received with every caution:—

In the first place about 50 per cent. of all cases of plague (excluding pneumonic cases) recover naturally, they do not therefore require serum injections. In the cases which tend to run on to septicæmia, I think that the injection must be given at the onset of the disease, while the bacilli are still confined to the primary bubo, if there is to be a chance of preventing them from entering the blood. Once septicæmia is set up, there is, in my opinion, only an infinitesimal chance of avoiding a fatal termination, even though the strongest serums are used.

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DR. BITTER ON THE PATHOLOGY OF PLAGUE.

IMPORTANT DIAGNOSTIC FEATURES OF THE DISEASE.

WE are indebted to Dr. BITTER, of the Egyptian Plague Commission, for the clearest and best account of the pathology of plague from the bacteriological stand-point that we have come across. We give the following translation for the benefit of our readers:—

The plague, as we are aware, is one of the most multiform diseases known; all the ancient authors, who have studied epidemics, insist upon this point.

I also suspected at the beginning of my observations to find out how much the clinical symptoms varied, and what a possibility there was in the pathological changes revealed at autopsies.

When we consider that in other epidemic diseases, as enteric fever, relapsing fever, small-pox, pneumonia, the cases are similar and almost invariably present the same clinical features, and that in others like cholera and diphtheria the symptoms vary within very narrow limits only, one would be inclined at the onset to look upon the different forms of plague as so many different diseases.

I will not enter into clinical and pathological details, beyond what is necessary to make plain my view of the nature of the disease.

In the first place it will be sufficient to state that all the symptoms, numerous and confused as they appear at first, can be referred to three sufficiently distinct forms of the disease, the difference between which is not artificial but follows logically from the different parts of the organism attacked by the bacillus, which, according to its distribution, produces different symptoms and pathological lesions.

Before entering into a detailed description of these three forms, in order to make myself clear, I must briefly explain the general idea I have arrived at, as the result of my observations, as to the *nature of plague and of the bacillus which produces it.*

In giving here the definite result of my studies, I hope to make more clear what I have to say about the pathology and symptoms of plague upon which my conclusions are founded.

The plague bacillus belongs to the class of septicæmic bacilli. These bacilli have the following characteristics —

When a *susceptible* animal is inoculated with a minute quantity of a cultivation of the microbe, the microbe begins to multiply immediately, and without producing any apparent local reaction it enters into the blood of the animal, where it finds the real field for its development, and where it multiplies freely until the whole vascular system is crowded with bacilli, and the animal dies.

This effect invariably results when the inoculated animal is *susceptible in the highest degree*

For each kind of septicæmia there is one or more animals who possess this absolute susceptibility. There are others that are not susceptible; these can be inoculated with enormous quantities of septicæmic bacilli without effect But between the predisposed and the refractory, there are usually found animals that possess all degrees of sensitiveness. As a rule, diminished susceptibility shows itself as follows: while the predisposed animal exhibits no local reaction after inoculation, the less susceptible animal, on the other hand, reacts by a more or less acute local inflammation. In this reaction we see an effort of the organism against the microbe. Sometimes the bacillus succeeds in entering into the blood and the animal dies. But in other cases the organism gets the upper hand of the microbe at the place of inoculation, it is destroyed in the inflamed tissues, which are themselves often subsequently destroyed by suppuration.

In reality, the phenomena that I have outlined are much more complicated. Just as different races possess a different degree of susceptibility, so amongst animals we find an individual predisposition allied to an incomplete susceptibility. Further, the virulence of the inoculated bacillus, and the quantity of the microbe introduced into the system, exercise an important influence over the result of the inoculation. It would take too long to consider all these possible contingencies in detail, suffice it to say that each of them may have its influence on the course of the plague.

The best, and the best understood example of a septicæmia of this kind is anthrax. The smallest quantity of this specific bacillus introduced into a small wound in a mouse kills it with absolute certainty, without the least local reaction taking place. In rabbits there is often a local reaction, feeble it is true, and the animals sometimes survive. In cattle and horses the local reaction is well marked as an extensive œdema which occurs around the seat of inoculation, but in spite of this a large number of animals still die of septicæmia.

In *man* the susceptibility to anthrax is still less. The local reaction occurs clearly and in a well-marked form as a malignant pustule or anthrax. In the majority of cases the individual escapes, but on the other hand a sufficiently large number of cases of anthrax are followed by fatal septicæmia. If the anthrax bacillus enters (with food, etc) into the intestines of man, the result is an acute inflammation (enteritis) which is almost always followed by fatal septicæmia. In the same way if the spores enter the lungs, they give rise to pneumonia which is followed by septicæmia.

In plague we have a disease which has many points of resemblance to anthrax

The smallest quantity of the virulent specific bacillus inoculated into rats or mice invariably kills them by septicæmia without any local reaction appearing. *Man does not possess this highest degree of susceptibility to the plague bacillus, up to a certain point he is refractory*

Consequently, the entrance into his body of the bacillus, is always marked by a local reaction more or less intense, and it is only in a certain number of cases that the primary localisation of the bacillus is followed by septicæmia.

But there is one characteristic of plague, which distinguishes it from other known varieties of septicæmia, it is this, in general the local reaction caused by the invasion of the bacillus of plague *does not occur at the place of inoculation, but in the lymphatic glands which correspond to this region.*

This reaction shows itself chiefly in a painful swelling of the glands which is more or less pronounced; it is these inflamed glands which are called buboes, and which have long been considered as the most characteristic symptom of plague, and from which the name of *bubonic plague* has been derived.

At the onset of the disease the bacilli are exclusively confined to the glands, they multiply there, and in addition to the local alterations give rise to general symptoms more or less severe. In a certain number of cases the bacilli remain in the glands throughout the duration of the disease; they neither penetrate into the surrounding tissue nor into the vascular system. The organism which struggles against them successfully in preventing their further multiplication and finally kills them at the seat of their first development.

The prognosis remains in a small number of cases end by undergoing resolution, but in the majority their substance is changed into pus, cases of this kind are quickly followed by cure.

In another class of case, the organism succumbs in its struggle with the bacillus. It is unable to limit it to the glands. The conquering microbe breaks through, so to speak, the filter which the organism opposes to it; it penetrates into the surrounding tissue and then into the blood where it multiplies freely. Then we have a septicæmia which is always fatal.

There is a third class of case, which is analogous to pulmonary anthrax. While in the cases already considered, the point of entrance of the microbe is a *small wound*, in this class it is the *respiratory system. The bacillus is inhaled directly into the lungs*, it settles there in one or more places and begins to multiply. The consequence is a strong local reaction which appears in the form of *lobular pneumonia*, more or less extensive. *In these cases there are no buboes*

In cases of this kind the organism appears very rarely to overcome the bacillus Such cases observed in Bombay were, with one exception, all fatal.

To recapitulate. We can distinguish between three different forms of plague —

1. The simple bubonic form, where the infection is confined to one or to a group of lymphatic glands These cases usually end in recovery.
2. The septicæmic form, which is always fatal
3. The pneumonic form

Possibly yet other forms of plague exist, for example an *intestinal* form is mentioned by authors who have observed the plague in Hong Kong. But in Bombay, neither in the clinical observations nor in the post-mortem examinations, have I ever found any evidence of an infection of this kind.

The multitude of clinical symptoms and pathological lesons, which I have mentioned above are explained by the three forms of the disease which I have pointed out, and also in addition by the fact, that in the first and second forms there is not unfrequently a secondary infection by other micro-organisms, especially by pyogenic micrococci, which influences the clinical features of the disease.

———.o———

THE MORAL ASPECTS OF MALTHUSIANISM.

The performance of the marital act in a manner, which frustrates it of its legitimate purpose, is branded with the name of Onanism, because the first authentic instance of this kind is recorded of Onan. There is no uncertain ring about the verdict of theologians regarding the use of the check-pessary or any other means employed to prevent conception a practice deriving its name from the advocacy of the Rev. T. R. Malthus—Malthusianism. Without entering upon their arguments, it is sufficient to state here, that they condemn the application of any such means as intrinsically evil and not permissible under any circumstances. How far are theologians in this matter supported by the principles and deductions of natural ethics? Let us see.

No lengthy process of reasoning is required to arrive at the conclusion, that propensities and inclinations are not the proximate determinants of human actions, neither is it difficult to show, that pleasure and utility are not sufficient motives for the rational will. If they were, the thief, the drunkard, the adulterer would not be criminals, and the existence of law-courts would be anomalous. There is a natural law, deeply engraven in the human heart, by which every individual, capable of reasoning, is required to regulate and measure his conduct by those moral principles, which, being innate in man, form the basis of his practical judgment. The knowledge of the primary dictates of morality is common to all, but education is required to develop them. The less the mind has been trained in applying them, the more it is liable to go astray in drawing inferences from them, and, consequently, the more apt to get entangled in apparently contradictory postulates of morality. The dictum *errare humanum est* is as applicable to moral as to scientific conclusions, nay, there is greater danger to err in the former, because the fascination of evil and the allurement of self interest may easily intervene to thwart the understanding in judging of practical issues.

It is necessary to enter into some details regarding the primary principles of morality in relation to the passion for sexual intercourse, in order to determine the reasons, why the prevention of conception cannot be defended upon moral grounds; and if by these, practical Malthusianism stands condemned, the cause for its defence must yield the palm to superior and more urgent claims.

The inclination to sexual union is altogether natural, but is it in itself a sufficient determinant to actual intercourse? Reason says no, and even the most uncultivated savage will admit that its indulgence must be postponed to the proper time. But what is the purpose of these cravings of nature? Not, certainly, the pleasure of the individual, for when they are not restrained, they exercise, in a very short time, a baneful despotism over man's better instincts, divert them into unnatural ways of gratification, and become most copious sources of bodily diseases, mental disorders and of moral degradation The propensity of the sexes towards mutual union is, therefore, to be determined neither by the momentary impulse of the passion, nor by the gratification to be derived from its indulgence, but must be dominated and regulated by reason. Reason declares that the inclination is indispensable to mankind, because by its stimulus the preservation of the species is provided for, but it also dictates that it should not be indulged, except by *marital* intercourse. We use the word marital, and not sexual, because outside of marriage, all nations concur in condemning its gratification and in upholding the necessity of keeping it under control. Nature itself has provided a check upon its own deterioration, by attaching to the stimulus of this passion a concomitant feeling of peculiar shame.

Propagation includes the duties of not only supplying what is necessary for the nutrition of the offspring, but also of directing and superintending its mental and moral development. These duties are so grievous and entail such heavy responsibility, that, without the stimulus of sexual passion, implanted by nature, most men would shirk the burden of propagating the species. But as the gratification of the passion is momentary and the duties entailed by propagation are continuous, the constant weari-

[illegible] is not only maintained, but [illegible] an agreeable task, by the abiding love of [illegible] couple. Unfortunately that, unreasoning, [illegible] attraction is often mistaken for love and is responsible for so many unhappy marriages.

Woman alone cannot ordinarily provide for all the wants of her offspring. Of all animals, the infant man is the most helpless and the most dependent upon others; and, in proportion to his life, he remains so the longest. His wants, moreover, are not only of a higher material order, but, belonging as they do to a moral and intellectual sphere, they are of a different kind from the wants of the brute creation. In those animals, where the female is sufficient to provide for its young, the male does not remain with the female after coition, as we see in dogs; but where the female cannot alone provide for the young, there the male remains with the female so long as is necessary for the wants of the progeny. For human propagation, nature ordains the permanent union of man and woman. This union must be unconditionally permanent, because without the stability of an enduring matrimonial contract, binding upon both parties, the good of the offspring would not be sufficiently provided for; and the good of the race requires that the union should be binding in all cases, because nature has respect to the whole species, and not to fortuitous conditions. Divorce is not sanctioned by nature Promiscuity is condemnable, because it prevents the expansion of the race, by producing sterility and disease, and, at best, by allowing the existing members a precarious existence.

But what has all this to do with the question, whether the prevention of conception is or is not allowable upon moral considerations? Just this, to clear the ground for the admission of the following principles and deductions

1. That the inclination towards sexual intercourse does not exist for personal satisfaction, but for the good of the race.

2. That the sexual organs having no other purpose than that of generating, the voluntary emission of the semen for any other purpose is against nature

3. That the indulgence of the sexual passion is never permissible outside marriage.

4. Therefore, that in the marital state, the marriage act should be exercised in accordance with the conditions and purposes of nature.

The advocates of practical Malthusianism must found their reasons upon considerations of propensity and inclination, pleasure and utility. These, as we have seen, are not sufficient motives to determine human acts, if reason opposes the claims of morality.

In all that is said above, we have abundant grounds on which to rest our condemnation of Malthusian practices. To prevent conception by any means, except abstention, frustrates the end of nature and prevents the multiplying of the human race; it destroys the dignity of woman in destroying the ideal of motherhood, and reduces her to an instrument of untutored and sensual passion; the artificial means, by which conception is prevented, fosters immorality in the unmarried, as it gives them facilities to gratify themselves, without any corresponding burdens; it [illegible] upon the [illegible] greater & perpetual cause of [illegible] the inevitable effect of wrecking [illegible] of home. What more is required [illegible] of Malthusianism, if the name [illegible] intercourse?

The reasons brought forward to justify the prevention of conception under certain conditions, is amply refuted by the axiom; "The end does not justify the means," and by this other: "It is not allowed to do evil, that good may come from it." Certainly, if the woman is delicate, the husband ought to restrain himself and spare her strength as much as possible, without, however, having recourse to ways and means, which nature abhors. The dangers of child-bearing are inherent in the matrimonial contract, just as the dangers of the battlefield are the prospective lot of the soldier. Society must go to pieces if every one be allowed to shirk the obligations of his condition and the dangers of his state in life.

We have not touched upon the stock argument in favor of Malthusianism, that it checks the overgrowth of population. It is curious to observe, that (we are quoting from Beck's Medical Jurisprudence, 7th edition, page 227) "Aristotle, in his work on Government, enjoins the exposure of children that are feeble and deformed, in order to prevent an excess of population. He adds, 'If this idea be repugnant to the character of the nation, fix at least the number of children in each family and if the parents transgress the law, let it be ordained, that the mother shall destroy the fruit of her body before it shall have received the principles of life and sensation.' The mild Plato also justifies this practice. In his Republic, he directs that 'children born with any deformity shall be removed and concealed in some obscure retreat .....Pliny, the elder defends the right of parents to destroy their children, upon the grounds of its being necessary to preserve the increase of population within proper bounds." These philosophers lived more than 2,000 years ago, and seeing that Christianity opposed a barrier to the crime of fœticide and infanticide, has the world gained or lost by the prohibition of checking the excess of population? The argument that the population must be kept within the proportion of food supply, it may safely be asserted, may be an excuse, but is never the motive of Onanists. Onanists indulge in their nefarious practices from selfish motives. Nature, under the direction of a benign Providence, knows how to meet the so-called danger of overgrowth of population. In America the complaint is loud and frequent, that "the obstetrician finds his vocation disappearing among the American women from the face of the earth." This is what Dr. Walter Lindley says in the *New York Medical Journal* for August 1895, and he adds that, "had the Rev. T. R. Malthus lived in the United States to-day, he would never have argued about the danger of over-population, as he did in his interesting volume on 'The Principles of Population'". The check on population, so far from being a physical good, is an unmixed evil, morally and socially.

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[illegible] Government; this outcry for the suppression of [illegible] demand for a better education within, and a higher status without, the profession is the natural result of the revolution which the whole science of medicine has undergone.

In no branch of knowledge have more enormous strides been made, and with knowledge comes power; the wonderful advance of sanitary science and preventive medicine has enlarged the sphere of the physician's influence, no longer is it limited to the interchange of confidences between doctor and patient, it is felt by the whole State; medicine in its widest sense has become a portion of State craft, and the health of the people a matter of national importance.

There are certain questions connected with medical education, which at present are seriously occupying the attention of thoughtful men in England, and the best and surest road to their satisfactory solution is being earnestly sought; these very questions which have been made a subject of special representation to the Government of India, by the Indian Medical Association, are of paramount importance to the future of medicine and for the future of the medical profession in India

This appeal for reform derives its importance from two distinct causes: first, from the intrinsic value of the results which are certain to follow their inception, secondly, from its urgency.

The question of urgency arises from the fact that the longer these reforms are postponed, the more difficult will they be to carry out, at present the changes advocated can be made with facility, postpone them and the obstacles will increase from year to year.

The lines upon which reform is asked for are (1) A uniform standard of preliminary examination, (2) a uniform standard of education and professional examination, (3) the formation of a Council to exercise disciplinary powers similar to those of the General Medical Council of Great Britain. Further details will be found in the Report of the fifteenth meeting of the Council of the Indian Medical Association, given in our last issue.

For the carrying out of these reforms, we are much better situated in India than our professional brethren in the British Isles; in both countries it is clearly seen that legislation is necessary, and that no further advancement can be made without it, but the simple form of Government in India renders this course much more easy for us.

In England the task of getting a medical bill safely through the complications of the House of Commons and of overcoming the obstacles that may be offered to it is one of the very greatest difficulty, and may take years in its accomplishment.

Should our requests be deemed reasonable and expedient, the path is at once cleared for their early inauguration, and that they cannot be considered either unreasonable or inexpedient. We adduce the fact that the reforms asked for are the very reforms which a longer experience and riper judgment have shown to be necessary in England.

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Standing boldly in the [illegible] such movements, there is the great [illegible] legislation. Vested interests. What [illegible] have been wrecked upon these implacable [illegible], but we would remind those who urge difficulties from this side that vested interests do not stand; still they have, on the contrary, an unfortunate habit of growing, and of, what is even worse, multiplying. Judging from the rate we are at present proceeding at, the vested interests of to-day will have doubled in size and number in half as many years.

To-day they are few and weak, to-morrow they will be many and strong.

Medical education in Great Britain is conducted on a system as nearly perfect as can be; but who can say what obstacles to progress the nineteen different Examining Boards and the innumerable medical schools, with all their ancient rights and vested interests have not been?

It is freely recognised to-day that the competition amongst these various Examining Boards is an evil influence, and one that the urgency of the time is intent upon getting rid of.

How much greater would the difficulty be, in addition to the nineteen Examining Boards every medical school granted its own diplomas? Yet this is the unhappy and degrading process which medical education is at present undergoing in India.

Let an end be made to this system once and for all before it has gone too far. Let the different schools by all means undertake the instruction of the student, but let the final examination be a general one of uniform standard, conducted either by the universities or by some special body appointed for the purpose. Further, let no student commence his medical studies until he has passed a standard qualifying examination.

Difficulties so far there are none, should it be found necessary or expedient to permit the schools, that at present grant diplomas, to continue doing so, but little harm would result; for they would find it necessary to educate up to the general standard, and if the general examination became popular and gave a higher status, it is obvious that the majority of students would prefer it and the diplomas of these local schools would in time die of inanition

As for a preliminary standard it is urgently needed. A perusal of the prospectus of some of the present existing schools reveals only too plainly that they have a difficulty in getting their requisite number of students, and that many students are permitted to enter upon the study of medicine without any preliminary test at all.

Many students, even amongst those who have succeeded in passing the very low standard of preliminary required of them, have not the mental culture to profit by their course of medical study and to carry away a sufficient load of medical lore to elevate them into learned and useful men.

Is the science of medicine to be degraded in this way—a science which calls for the highest intellectual development, and where secrets are daily being sought after and unfolded by the keenest and most brilliant minds?

To elevate the standard simply means to get better men. It would appear indeed, from the present outlook of the question in India, as if the Government

looked upon as raised standard as synonymous with an increased expenditure.

Surely there is a future before Indian medicine, who can contemplate the vast extent of the country with its teeming population, millions of whom are out of the reach of skilled medical aid, whose births and deaths are unregistered, who suffer and die, and no man knows of what.

There must be a future also for scientific research, for the investigation of diseases, the elucidation of their etiology and the study of their therapeutics. Who is in the future to explore and make clear the vast and almost untrodden wilds of Indian pathology?

Surely a great portion of these noble and immense tasks must fall to those whose birth right is in the country!

True the native population of India is poor, but is this always to be the case; is there to be no improvement in this direction, and is this to be the final result of centuries of enlightened government? We refused to believe it; we have faith in the future of indigenous medicine, and we cannot refrain from noticing the vast strides that have been made in Japan under an active and go-a-head Government, in all matters of modern science.

We need add nothing more on this subject, save to say that we believe that the native princes and wealthy native gentlemen, if left perfectly free and unhampered, will take a large share in the progress of European methods of medicine in India.

It is only for the Government to pave the way, which will lead to the production of the proper material.

We have commented on some anomalies in the system of university education, and it may be said that as the universities are independent bodies, the Government can have no power to deal with them.

Now with regard to one point we touched upon, namely, the appointment of their professors; it is only too evident the universities have no independence whatever. They are entirely in the hands of the Government. Has any university the power to appoint a civilian professor of any branch of medicine or surgery, without any reference to the ruling body of the State, and yet for educational purposes what can be more important than that the teachers should be men carefully selected from the open field of competition, and that he should hold his "chair" as long as he can perform its duties in a satisfactory manner. The soldier surgeon, who is constantly being called away to active service, or moved to exercise his functions in some other sphere, is not the proper person for a professorial chair. In all cases when it is given to him he should be seconded for a certain number of years, as is done in every other branch of the service; but the rule for the university should be the best man apart from all other considerations.

As for the small point of unifying the standard of education and nomenclature, so that all the universities should have the same standard of examination and education and grant the same diplomas and degrees, the universities may be trusted to see to their own interests in this matter. Should the Government once show itself in earnest in the matter of putting its own schools in order, and suppressing the mushroom growth of hybrid imitations of the university titles, the universities will be only too ready to take their cue.

Ce n'est que le premier pas que coute, let the Government but show itself in earnest and take the first step on the lines just indicated, and everything else will follow, like the parts of a machine when the fly wheel is set in motion.

As for the vaids and hakims who at present to a large extent hold the field, let them alone for the present. Time will deal with them; in the present unsatisfactory state of our system they perhaps play a useful part, but when our house is set in order, and when the impetus that Indian medicine is at present feeling has gained a full power, and exercises a daily growing influence, vaids and hakims will gradually sink into oblivion and be reckoned amongst the curiosities of the past.

COMMENTS AND NEWS.

THE CALCUTTA HEALTH OFFICER AND HIS DUTIES. A SERIOUS QUESTION.

THE following protest by the Indian Medical Association was submitted in its communication to the Bengal Government on the 14th May:—

"That the Health Officer be not permitted to employ his time in any other way except in fulfilling those duties which are strictly involved in the true sanitary interests of the town."

When the above protest was published in the daily papers, the *Englishman* thought fit to remark that this particular protest concerning the Health Officer "*was not called for*," and our contemporary even went the length of saying it was "*impertinent*." Subsequent events prove how necessary and just the protest was and how important it is in the best interests of the public in general and of Calcutta sanitation in particular that the above protest should not only be emphasised, but that it should form the subject of very serious consideration in the present hygienic crisis of the metropolis by not only the public themselves but by the Municipal Commissioners and the Bengal Government, who are responsible for this highly unsatisfactory and calamitous state of affairs.

To give point to the contention of the Council of the Indian Medical Association, we quote from the *Englishman*:—"Dr. COOK'S time *was fully occupied* on Saturday, the 21st May, in operating on about 250 members of Mahomedan families in Kumarabagan Lane. All these people volunteered themselves to be inoculated, and this is the largest number of operations that Dr. COOK has performed in one day since the commencement of the plague. Dr. (Miss) CHRISTIE operated on all the zenana women. Two hundred more Mahomedans of the same locality have offered to be operated on. The family priest of the Sovabazar family, Pundit ISSUR CHUNDER VIDYARATNA, was inoculated yesterday, with 15 others. Up to date 782 persons have been inoculated." This sort of news appears daily in the newspapers, and the question naturally arises, who is responsible for the sanitary work of Calcutta if its Health Officer is all day and every day inoculating for plague. Either Calcutta requires a whole-time Health Officer or a whole-time Inoculator. Which of these is Dr. COOK? If Inoculator, then who is Health Officer? We leave the Municipality to answer this question.

The following correspondence between Mr. R. T. GREER, C.S., the Chairman, and Dr. J. N. COOK, the Health Officer, affords abundant justification to the above protest:—

"HEALTH OFFICER.

"Driving over the town to-day I noticed a large number of nuisances. The Nuisance Department might be stirred up."

* * * *

30-5-98. (Sd.) R. T. G.

"CHAIRMAN.

"I have referred the matter to the Engineer."

30-5-98. (Sd.) J. N. C.

"The Health Officer, not the Engineer, is the officer responsible for reporting nuisances. I want the attention of the Health Officer to this branch of his duties.

* * * *

1-6-98. (Sd.) R. T. G.

"CHAIRMAN.

"I should be obliged if you would inform me what my Nuisance Department consists of. Hitherto the conservancy staff has attended to nuisances, and I have not been informed of any alteration in this respect. Since the conservancy was transferred, I have had no Inspectors of Nuisances and was

not aware that I was responsible for reporting and dealing with nuisances.

3-6-98. (Sd.) J. N. C.

Does this not clearly prove that sanitary matters in Calcutta are in a state of utter confusion, and that however much such a condition of affairs might be condemned under ordinary circumstances, their existence at a time when the city is threatened with a most disastrous epidemic visitation—as officially declared,—it would be a most flagrant dereliction of public duty, for the press, more especially the medical press, to be silent when its voice should be heard in the most emphatic denouncement of those in authority upon whom such grave responsibility rests.

THE DANGER OF ASPIRATING THE LIVER.

Surgeon-Colonel W. F. Stevenson, A. M S., Professor of Surgery, Army Medical School, writes to *The Lancet* as follows:—"Surgeon-Lieutenant-Colonel Hatch, I. M S., has done well in drawing attention in the *Indian Medical Gazette* for April 1898, to the possibility of aspiration of the liver producing a fatal hæmorrhage into the cavity of the peritoneum. This important fact is but little known and has been seldom referred to in writings on the treatment of liver abscess. Surgeon-Lieutenant-Colonel Hatch recommends caution in the operation of aspiration of the liver for diagnosis of abscess, but you go further and state that 'the operation offers no advantages to compensate for its undoubted risk' and recommend its total disuse. This view will not, I believe, commend itself to the majority of surgeons and, if adopted, will result in patients dying from liver abscess unrelieved because their condition remains undiagnosed. The advantages of the operation are the certainty of diagnosis as to the presence of an abscess and its position if a positive result be obtained, and its almost certain absence if pus be not reached on the insertion of the needle at three or four situations. The books notwithstanding, there are no symptoms or physical signs on which the surgeon can depend for indicating the necessity of operation in cases of suspected abscess of the liver; perhaps of the latter œdema of the skin is the most valuable, but it is very seldom apparent, not oftener than in 4 or 5 per cent. of the cases—a sense of fluctuation may be left out of consideration, as it is hardly ever perceptible. I have discovered by means of aspiration liver abscess in cases where the classical symptoms of this complaint were all absent and where only pain over the liver and the patient's history warranted a bare suspicion of its presence, and I have found it on post-mortem examination in cases which during life exhibited no sign of it. Probably no disease presents cases in which diagnosis is more difficult than it is in some cases of liver abscess, and in these 'prospecting' the organ with an aspirator affords the only certain data on which to form an opinion. I have treated a large number of cases (over 150) in which abscess of the liver was present or suspected, and my routine plan has been to aspirate first at one or more points and then to operate on a positive result being obtained. In those cases in which pus was not reached no evil effect was ever perceived, the only result being a very considerable decrease of the pain previously felt, and this whether the amount of blood removed was great or small. The needle employed should no doubt be small, and that it be too narrow to permit the pus to flow freely, through it in some cases is hardly an objection, because even under these circumstances sufficient for merely diagnostic purposes may be obtained on aspirating the needle from the india-rubber tube and blowing its contents on to the palm of the hand.

"In the face of the cases related by Surgeon-Lieutenant-Colonel Hatch and of others one must admit a certain amount of risk from aspiration of the liver, but the ratio of fatal cases to the total number treated is almost infinitesimal and should be disregarded. The fact that *The Lancet* is read all over the world by medical officers who are likely to have these cases to treat must be my excuse for asking you to give space to this letter."

MONS. W. M. HAFFKINE'S PLAGUE PROPHYLACTIC IN TALUKA BARODA. SUCCESSFUL RESULTS.

We are indebted to the courtesy of Mons. W. M. Haffkine for a report on the effect of protective inoculation in the epidemic of plague at Undhera, Taluka Baroda.

The inoculations were performed at Undhera on the 12th February 1898, in which place the plague continued up to the 26th March 1898, *i.e.*, for 42 days after the inoculations.

On the day of inoculation the population of the village was 950; 47 of these had been inoculated before, between the 26th January and the 2nd February and were not done again; of the remainder 466 were inoculated and 437 remained uninoculated.

To make the experiment as searching and the results as conclusive as possible, the inoculations were carried out as follows: in each household, as nearly as possible, half the number of the male members, half the number of the females, and half the number of the children were inoculated.

The following is a summary of results:—

Amongst the 437 uninoculated from the 15th February to the close of the epidemic, 26th March, there were 27 attacks of plague with 26 deaths.

Amongst the total number inoculated 466 plus 47 equal to 513 there were only 8 attacks and 3 deaths.

Plague broke out in 28 families, in these 28 families there were 64 persons uninoculated and 71 inoculated.

The 64 uninoculated members had 27 attacks of which 26 were fatal. The 71 inoculated had 8 attacks, of which 3 were fatal.

If the inoculated had suffered to the same extent as their uninoculated relatives, they would have had 29 deaths from plague instead of only 3, this is a reduction of 26 or 89·6 per cent.

This result, it must be remarked, tallies in a remarkable manner with all the observations made up to now upon the protective effect of the plague prophylactic, the reduction of mortality effected by it averaging, as a rule, between 80 and 90 per cent.

Attached to the report before us are 28 sheets giving full details of the composition of each affected family and of the incidence of plague in each.

These results were all investigated and confirmed on the 4th April 1898 by Surgeon-Major General R. Harvey, Acting Director-General, Indian Medical Service, Mons. W. M. Haffkine, Surgeon-Major Bannerman, M. Rao Bahadur V. M Samarth, Rao Bahadur Nilkantra K. Ambegaskar, Rao Saheb Ramlal H. Desai, B A, LL B, Vahivatdar of Baroda Taluka, and Dr. Chaganprasad D. Divanjee, L.M. & S.

They require no further comment on our part, as they speak for themselves in no uncertain way.

COMMENTS ON LORD LANSDOWNE'S SPEECH ON THE A.M.S.

Says the *British Medical Journal*:—"We have received a number of press comments of a favourable character on Lord Lansdowne's announcements concerning the Army Medical Service.

"The *Army and Navy Gazette* asks:—'What's in a name?' and answers, 'That depends on the circumstances of the case to which the question refers. Lord Lansdowne has acceded

to the wishes of the army doctors and through them take its course, and if that in any way conduces to their happiness, social and military position, and professional ambition, no unreasonable man—soldier, or surgeon, or civilian—can object to the organisation. It will be a source of immense satisfaction if the best men now come forward from the schools to join the new corps.'

"The *Broad Arrow* says:—'The medical profession may fairly congratulate itself on having gained a complete victory, and routed the War Office with all its traditions and distinctions between combatants and non-combatants. The army generally will be only too pleased to accept the alteration, shadowy as it is rather than substantial. We may hope, if we do not quite believe, that we have now heard the last of army medical troubles.'

"The *Freeman's Journal* says:—'There has been a long-sustained conflict between the medical profession and the military authorities.....At last the army authorities found the game of defiance played out.....The profession has won.'

"The *Pall Mall Gazette* says:—'The 'Royal Army Medical Corps' is to be congratulated on the success which has attended the justifiable and well-managed agitation of its members; not less is LORD LANSDOWNE to be congratulated upon having overcome certain old-fashioned prejudices and upon the accomplishment of an act of justice that will do much to promote good fellowship between the combatant officers and their medical comrades.'

"The *Naval and Military Record* says —'The recognition of the combatant titles of the doctors is now to be carried to its logical conclusion . .Thus on all important issue the War Office has given way.'"

REWARDS FOR PLAGUE WORK.

ATTENTION is drawn by a contemporary to the great disparity in the rewards given by the Indian and other Governments for work in connection with plague. The comparison, we need hardly say, is not favorable to the Indian Government.

The Indian Government is prodigal of graceful phrases of recognition. But for rewards of any substantial value we have still to look to the future with whatever hope we may.

In vivid contrast to this is the prompt action of the German Government. We learn that Dr. GAFFKY and Dr. PFEIFFER have received an honorarium of 15,000 marks each, and Dr. STRICKER and Dr. DIEUDONNE 9,000 marks each.

The two first-named doctors receive in addition the order of the Red Eagle of the 2nd class, and the others the same order of the 3rd class.

These rewards have been given for about three months' plague work.

When we think of the long list of rewards and honors so freely, not to say promiscuously, given for a few months' service on the frontier, the meagreness of the thanks so stingily doled out to those who have borne the brunt of the prolonged and trying plague campaign appears to us to be far from reflecting credit upon a Government which is supposed to be civilised.

In its actions we have at any rate no difficulty in tracing the primitive ideas handed down from barbarous days, when war was held to be the noblest field in which man could display his powers and gifts. The march of civilisation does not appear to have as yet changed the attitude of the British or Indian Governments in this respect.

LIGHTNING-STROKE PARESIS.

A CURIOUS case of injury due to lightning is reported in the *Prager medicinische Wochenschrift* for 10th February 1898, by Dr. EDWARD WEISS. The patient had been injured by lightning two years before his admission, and, according to his story, he was almost completely unconscious for three days, after which he gradually regained his powers, but never perfectly. He was completely paralysed for nearly three weeks, and even then required two months more to regain any power in walking. His hearing was also very defective in the left ear, though perfectly good previously. The whole anterior surface of the body and the inner surface of the left thigh and leg were deeply burned. Since the accident the patient had been able to do light work, but was compelled to stop work every month or so because of severe pain in his whole body and excessive weariness, which became more marked on any change of weather. At the time of his admission he was a moderately well nourished man with no evident disease of the viscera Over part of the anterior portion of the body the skin was perfectly white, with well-marked elevations like those seen on the skin of a picked bird and with but a very few fine hairs. Below, on the inner surface of the thigh and leg, were broad parchment-like strips, the remnants of the old burns. Nothing else could be found, except an increased knee-jerk, some ataxia of the lower extremities, and a rather weak hand grip. The hearing in the left ear was still very defective. As is well known, says the author, the effects of lightning are very various, at times simply destructive, without any great amount of heat generation. The case illustrates very well this combined action in the shock to the brain and the burns on the body, and an additional evidence is the partial melting of a coin carried by the patient. The other symptoms of the case seem to have been very probably functional, since they were much improved by hydrotherapeutic measures.

TREATMENT OF PELVIC SUPPURATION BY INCISION OF THE POSTERIOR CUL-DE-SAC.

M. MONOD in the *Societé de Chirurgie* writes:—"I have employed the method of opening the posterior vaginal cul-de-sac on forty occasions. I do not desire to invite attention to those cases in which this proceeding is adopted to evacuate a collection that presents in the vagina; but rather to those cases where it is necessary to penetrate deeply to open an abscess that is situated high up, and when there exists at the same time a suppurative perisalpingitis and an ovarian suppuration or salpingitis, forming a second sac contained in the first and at such a distance from the vagina that there is a danger of its being overlooked and being left intact, if the operator merely opens the posterior vaginal cul-de-sac.

"I have observed this condition 25 times in double salpingitis and peri-salpingitis.

"In four cases the contents of the peri-salpingitic sac, opened by incision of the posterior cul-de-sac, were serous, while higher up there was an abscess. In seventeen cases, which resulted in sixteen cures and one death, the suppuration was unilateral with two abscesses, and in the four other cases, of which two were cured and two died, the suppuration was bi-lateral."

M. ROUTIER said:—"I have frequently observed the phenomena described by M. MONOD, where after the opening of a sac containing either serous or purulent matter, a second sac is found containing pus. On account of the possibility of multiple collections, incision through the posterior cul-de-sac should always be followed by careful exploration by the bi-manual method, so that these collections may not be overlooked

MR. GLADSTONE'S DEATH. THE PASSING OF A GREAT MAN.

SAYS *The Lancet* :—"We do not intend to give any detailed obituary notice of the great man who has just passed from among us. Our readers have before them the ample story of Mr. GLADSTONE'S grand career in all the daily papers and in most cases it will be the province of such papers to discuss political matters upon which we are unable as a medical journal to take a view. But at the same time we desire to register our feelings of profound admiration for the dead statesman's lofty ideals, unrivalled intellectual powers, and wonderfully sweet and buoyant temperament. In Mr. GLADSTONE a lowly trust in God was joined to the highest aspirations for the good of humanity, and the sense of the loss which the nation feels itself to have sustained by his death cannot be adequately expressed. Medicine, its science and practice, falls as a part of the social scheme beneath the domination of a real national leader, so that in common with the rest of the community we rejoice when our leader is a good man as well as a great one, and while rejoicing benefit. It is unnecessary to point to special acts or speeches that we may prove Mr. GLADSTONE to have been the friend of those who follow our calling, though to do so would be easy. Being the man that he was it was inevitable that he should sympathise with us and with all who work to help the weak. For Mr. GLADSTONE was exactly 'the man of mercy' whom the Son of SIRACH has described, as he was and is, also, one 'whose glory shall not be blotted out' but 'whose name liveth to all generations.'"

The President of the General Medical Council said a suggestion had been made to him that the Council should join other public bodies in recording their sense of the loss which had befallen the nation through the death of Mr. GLADSTONE. He therefore moved the following resolution which was carried unanimously by the Council in Session :—

"That this Council desires to place on record its sense of the grievous loss which has befallen the nation by the death of the Right Hon. W. E. GLADSTONE, whose interest in the profession of medicine was ever warm and sympathetic, and under whose administration the Medical Act of 1896 was passed into law. The Council further requests the President to transmit to the widow and family of the deceased statesman a suitable expression of the Council's heartfelt participation in the national sorrow."

ABSCESS OF THE LIVER.

THE two following cases of liver abscess treated by free incision are related by M. RICHELOT :—

The first case was that of a young man aged 22 years, who had returned from a two years' residence in Saigon and Tonkin, where he had suffered from dysentery. The disease had been diagnosed as pulmonary tuberculosis with localised empyema. M. LAFONCADE (of Bagonne, under whose treatment he came) diagnosed liver abscess following dysentery, and according to LANNELONGUE'S method resected the lower margin of thorax, which enabled him to freely incise the liver abscess. The patient died on the 32nd day.

In the second case, M. LAFONCADE opened the abscess by transpleural laparotomy, recovery followed without incident.

M. RICHELOT related a case of his own, in a man who had returned to France 10 years previously after having served in the Tonkin Campaign, in the intervening time he had only suffered from occasional attacks of fever, the liver extended to a considerable distance below the arch of the ribs, and in this situation laparotomy was performed and about 350 grammes of pus evacuated from a liver abscess. Three months later he incised a second abscess which presented below the xiphoid cartilage, and shortly afterwards a third abscess appearing, it was also opened. Complete cure followed. The pus from the third abscess was sterile, that from the other two was not tested.

A DEBT COLLECTOR ON THE SYMPTOMS OF PLAGUE.

A GENTLEMAN, who signs himself ALEX. J. AGABEG, Superintendent, Public Debt Office, Bank of Bombay, in a letter to the *Englishman* under the above heading, is kind enough to treat us to some very original views of his own as to the true nature and pathology of plague; the ideas will no doubt interest as well as afford considerable amusement to our readers. "This so-called plague," we are told, is nothing else but a most virulent attack of "malaria," and the bacillus which has been discovered is no other than the "bacillus malariæ" which has not been known in India before. It is something to be thankful for that the dreadful "bacillus malariæ" has not previously visited our shores, but whence all the malarial fevers with which we are so well acquainted!

"The microbe," we are informed, "appears to be a vegetable of a group Schisomycetæ, and of a family near Algæ, it is so small that it is difficult to imagine its size."

Mr. AGABEG appears to be an individual of the group meddlers, of a family near muddles, but his errors are so enormous that it is difficult to imagine their size.

Regarding symptoms he says :—"The skin only in very exceptional cases has shown black patches, and scarcely can you find the whole body blackened." The meaning of this charming sample of English "as she is writ" in Hindostan we leave to the discernment of our readers, while we wonder at finding it admitted to the columns of the *Englishman*.

PROFESSIONAL SECRETS.

THE *Medical Times and Hospital Gazette* says :—"The question of professional secrecy is one which perpetually recurs in very different forms. There can be no doubt of the absolute necessity for inviolable secrecy as to matters made known to a doctor by a patient in the course of consultation. One cannot, of course, severely blame a doctor who deviates from his plain duty in this respect owing to fear of threats by those who administer the law; but at the same time we must admire those who decline at all risks to betray confidence reposed in them. To do as some suggest ought to be done, namely to give information to the police of every crime (or what the law calls crime), which comes under medical notice professionally, would be as wrong in principle, as it would be ruinous in practice. There are, however, cases in which secrecy would be sure to endanger either the patient or others, and here the doctor must, of course, undertake the responsibility attached of necessity to the information acquired. If a patient betrays to a doctor plain symptoms of homicidal or suicidal tendencies, it is an obvious duty to take suitable steps to guard against consequences, and no blame can be attached to a doctor who finds it desirable to convey the information to those who ought to have it. Again, if a patient is dangerously infective, a doctor, in the event of the patient refusing to take proper precaution for the safety of others, might under some circumstances be justified in warning those exposed to risk. The exceptions, however, should be very few. The fixed rule is absolute secrecy!"

ANTIRABIC INOCULATIONS.

SAYS the *British Medical Journal* :—"The *Annales de l'Institute Pasteur* contains a brief summary of the work for the year 1897. The number of persons bitten by rabid animals and treated at the Institute was 1,921, and of these 8 died. If 2 cases in which death occurred before treatment could take effect are excluded, the 8 deaths give a total mortality of 0·39 per cent. The cases are classified under three

bitten; 2. Those bitten by dogs proved by injection experiments to have been rabid 3. Cases bitten by animals certified as mad by veterinary surgeons. 3. Cases in which the rabies is suspected only. The mortality in the first of these classes is always higher than in the other two. It never, however, exceeds 1 per cent., and during the year in question only reached 0 7 per cent. Bites on the face and head were most fatal, the hands and limbs coming next in order of danger. Of the fatal cases one died six months after treatment, most of the others at intervals of a few weeks only. It is interesting to note that in 9 of the fatal cases the rabid dogs which inflicted the wounds were known to have bitten other persons who have not subsequently developed any symptoms of rabies. One of these persons had undergone a course of treatment at the Institute, the other had not. Of the 1,531 persons treated in Paris 175 were foreigners; the countries contributing the greatest number being—England, 33; India, 23; and Switzerland, 34.

LAND AND FLOATING HOSPITALS AT RANGOON.

ARRANGEMENTS have been made by the Rangoon Municipality to procure a loan of a river flat from the Irrawaddy Flotilla Company. This flat will be properly fitted up to meet the requirements of a hospital, and will be anchored in the river. The lower deck of the flat is being lime-washed from stem to stern, while the upper one will be similarly treated. The top portion has been matted in and equipped with other necessary arrangements. Lying alongside this flat is another but smaller flat-bottomed boat, which will be utilised as a disinfecting apparatus To answer this purpose it has been equipped at one end with a machine and large boiler for generating steam, which will escape through a number of pipes into three reservoirs specially fitted up for facilitating the work of disinfection. At the opposite end two cells have been built, into which a pair of trollies will be run from the reservoirs with the infected linen, which will undergo a further process of disinfection under steam in an enclosed cell. The work of completion is being rapidly pushed.

It has been decided to erect a portion of the new General Hospital for Rangoon in order to provide sufficient accommodation for European and paying patients, to alter the present hospital, to build an infectious diseases hospital for Europeans, and to convert the present infectious diseases wards into wards for females suffering from contagious diseases, at a total cost of four lakhs, excluding the cost of the site for the new buildings. The Provincial and Port revenues pay one-fifth, and the Rangoon Municipality four-fifths of the expenditure of three lakhs and fifty thousand on the contagious diseases hospital under consideration, but the Municipal Committee thinks that if the present vaccination law is amended by making adult vaccination and re-vaccination compulsory, this expenditure will be necessary.

The steamer *Tsiffa* is being fitted up in the Rangoon river as a hospital, while on the bank will be a segregation camp The steamer will serve as a hospital for the whole town. A hospital will also be built at Thatabyu, where the present infectious diseases hospital is. This will be for the Eastern half of the town, and, if necessary, there will be a segregation camp on the newly-reclaimed ground. A meeting of the medical men in town will be held shortly to discuss matters. Two trained nurses have been sent for from England.

ENTERIC FEVER AMONG THE TROOPS IN INDIA.

SAYS *The Lancet*:—"General RUSSELL asked the Secretary of State for India whether the Government of India had arrived at any conclusion regarding the cause of the great increase in enteric fever among European troops in India; whether the investigations which it was proposed should be made were concluded; and whether it was proposed to adopt any special measures to arrest the spread of this malady. Lord GEORGE HAMILTON replied: No definite conclusion has been arrived at as to the cause of the increase in enteric fever among British troops in India, and the investigations on this subject are still proceeding, selected medical officers having been specially detailed for this duty. Generally the measures taken to check the spread of the disease are the improvement of the water-supply, the provision of pure milk and butter, and improved sanitation of camp cantonments and barracks. One cantonment, Dragshai, where there have been serious outbreaks of enteric fever, has been completely evacuated for a year, pending the installation of an improved water-supply and the disinfection of the barracks and their vicinity."

SURGEON-CAPTAIN C. DALTON, A. M. S.

ANOTHER case of distinguished heroism, says the *British Medical Journal*, is thus alluded to in the *Army and Navy Gazette* of 7th May:—

"When Lieutenant CRAIG-BROWN, 1st Battalion, West India Regiment, was severely wounded in the fighting recently in Lagos, Surgeon-Captain C. DALTON, A. M. S., dressed his wounds on the spot where he was shot down midst a hail of fire. A carrier, who was by his side at the time, was shot dead. Another thrilling act was performed by the same officer together with Sergeant-Major M'KILLOP. It was found, when the company got into safe quarters, that a wounded West India native had been left behind. The man was badly wounded. Captain DALTON and M'KILLOP at once went back, a distance of 500 yards, into the enemy's quarters under fire, and brought the poor fellow back. Unfortunately the man, whose name was BARRETT, died. The act was none the less one of great gallantry, and, as a correspondent puts it, 'at time when some would try to make out that the army doctor is simply a civilian hanger-on to the army, it is right that all honorable men among combatant officers should rise in revolt against such a libel and injustice, which can in the long run only produce its proper result'"

THE GENERAL HOSPITAL AND DR. PILGRIM.

SURGEON-CAPTAIN HERBERT WILSON PILGRIM, I. M. S., is M.R.C.S. Eng., L.S.A. Lond. (1884), and M.B Lond., (1885). He hails from the West Indies, and was medically educated in the University of Edinburgh and in University College, London. He joined the Indian Medical Service in 1886, and has therefore 12 years' service. He was appointed junior Resident Surgeon of the Presidency General Hospital in June 1890, and was promoted to First Resident Surgeon on the 1st of April 1892 on a salary of Rs. 900 per mensem. His present position, as Superintendent of the hospital, just doubles his salary. There is not another officer in the Indian Medical Service of his rank who is in receipt of a salary of Rs. 1,800 per mensem. DR. PILGRIM has had 8 years' practical experience of the working of the Calcutta General Hospital, and if merit and special experience are to be accorded their just reward, DR. PILGRIM certainly deserves his promotion. There can be no question or doubt however that from a service point of view, the selection of a junior surgeon for so important an administrative office, will evoke the severest criticism, as in making such a selection the Government has over-ridden the most hide bound rules and regulations of the service.

TREATMENT OF SYPHILIS BY INTRAMUSCULAR INJECTIONS OF MERCURY.

SURGEON-CAPTAIN F. J. [illegible], M. R. C. S., [illegible], India) writes to the *British Medical Journal*:—"[illegible]

the greatest credit is due to Surgeon-Major LAMBKIN for bringing this method of the treatment of syphilis to the notice of many surgeons. It has been adopted by very many medical officers in this country, and with the greatest benefit to the soldier and the State. The reasons why it is not more extensively used are (1) the difficulty of procuring a suitable syringe; (2) contamination of the system with impure mercury, (3) too large a dose of the cream. I have not found the vulcanite syringe answer in this country; the barrel works loose and the needles separate from the vulcanite. I now use an ordinary syringe made by WRIGHT in which the needles screw on. I make the cream from ACH's chemically pure dental mercury, and never inject more than 5 minims at a time. With the man standing, I insert the needle high up near the crest of the ilium, and push it downwards and forwards. I have given about 900 injections and have never had an abscess. The men are able to perform all their duties and even to ride.

A CHINESE CHRISTIAN PHYSICIAN IN LONDON

THE *Friend of China* says:—"An interesting incident of the year's work has been the visit of Dr TSAO YUNG-KWEI, physician to the Special Envoy who represented the Emperor of China at the Diamond Jubilee of our beloved Queen Dr. TSAO, who is on the staff of the Methodist Episcopal Missionary College in Pekin, was entertained by the Society at an informal afternoon gathering in Westminster Town Hall, when an address of welcome was presented to him. He feelingly acknowledged the efforts made by British Christians to put an end to this great curse that afflicts his country. The address was afterwards engrossed and illuminated and forwarded to Dr TSAO, at Pekin, and we have received from him a cordial acknowledgment, stating that he is bringing the matter before the Christian churches in Pekin. Amongst those present at the reception was Dr. WALLACE, of Calcutta Editor of the *Indian Medical Record*, which has subjected the Report of Sir WILLIAM ROBERT, as Medical member of the Royal Commission, to the incisive criticism referred to in our last report. Dr. WALLACE confirmed the testimony of his Chinese *confrère* as to the evil effects of the opium habit."

ANGLO-INDIAN CLAIMS AND ASPIRATIONS

SURGEON-COLONEL KENNETH MACLEOD, M.D., F.R.C.S., writes:—"I observe from Indian papers, recently received, that the agitation for obtaining encouragement and recognition by the State for members of the Anglo Indian or domiciled British community in India is being actively carried on. Nothing but good can come of representing the numbers, the importance, the services, the capacities, the loyalty of that community in this country, (England) and for the purposes of such representation strong and wide associations are needful. I see that a point has been made of the disabilities of the communities, as well as of their merits and capabilities; and accusations have been cast on the Government of India that these disabilities are the creation, not of circumstances but of arbitrary administrative initiative, actuated by race prejudices and unfounded disparagement of a people peculiarly placed, who have not been able sufficiently to assert themselves under the conditions of their existence in India. I am inclined to think that this point is overdone and that the circumstances are more to blame for the disabilities than the authorities."

PRESENTATION TO SIR WILLIAM STOKES, F.R.C.S.I.

An interesting ceremony, says the *British Medical Journal*, took place in the Royal College of Surgeons, Dublin, on Saturday, 4th inst., when an address and some valuable plate were presented to Sir WILLIAM STOKES on the completion of his twenty-fifth year of office as Professor of Surgery in this School. The subscribers comprised many old and eminent pupils, his colleagues and numerous admirers, including Lord LISTER, Sir JAMES PAGET, and Professor OGSTON, of Aberdeen, who was able to be present. The chair was occupied by Sir WILLIAM THOMSON, President of the College, who made the presentation, and speeches were delivered by Sir CHARLES CAMERON, Sir GEORGE DUFFEY, and Mr. MYLES. Sir WILLIAM STOKES made a most effective reply, marked as it was by great eloquence; and he made touching allusion to the gift to Lady STOKES which accompanied the presentation. In the evening the Professors entertained their colleagues at dinner. Sir CHARLES CAMERON was in the chair, and there were also present Sir WM. THOMSON, F.R.S.E., Sir GEORGE DUFFEY, Professor OGSTON, Dr. JAMES LITTLE, Professor FRASER, Mr. MYLES, Dr. J. W. MOORE, Mr. HEUSTON, and many others.

THE TITLE OF "DR."

THE *British Medical Journal* says:—"At Newcastle, THOMAS PAINE HETHERINGTON, styling himself 'Dr.' but not on the *Medical Register* or holding any registrable qualification, was charged before the magistrates under the 40th Section of the Medical Act, 1858, with wilfully and falsely pretending to be a doctor of medicine. It was stated that the defendant was a dentist and a doctor of medicine of the United States. The case was however practically undefended, no evidence being called on behalf of the defendant, and who in the absence of proof that he held any medical qualification, was fined £20 and costs. The prosecution was instituted by the Medical Defence Union.

"At the Newcastle County Court, recently, before Judge GREENWELL and a jury, THOMAS PAINE HETHERINGTON (who, as above stated, was fined £20 at the police-court for illegally using the title of 'Dr') was sued by the Society of Apothecaries for having practised without having a medical diploma. The jury found for the Society, and judgment was given against the defendant for the full amount claimed, £20 and costs."

THE "JOURNAL OF TROPICAL MEDICINE."

SAYS *The Lancet* — It is proposed, if enough support can be obtained for the scheme, to publish in London a monthly journal dealing with the diseases of warm climates, to be devoted to the publication of papers on tropical diseases and to the discussion of subjects scientific and practical affecting the interests of medical men in tropical and subtropical climates. The annual subscription, including postage, is to be 17*s*. We wish the promoters success in their new venture. They deserve it, for there is no country which has such a large interest in the tropics and the diseases common to them as our own. Any communication addressed to the Editors, *Journal of Tropical Medicine*, Messrs. JOHN BALE, SONS and DANIELSSON, 85 to 89, Great Tichfield-street, London, W., will receive attention. The editors are Mr. JAMES CANTLIE and Dr. W. J. SIMPSON."

CLIMATE AND MORALS

A CURIOUS investigation has been undertaken by the officers of the weather bureau in the United States. Colonel WILLIS MOORE originated the investigation, believing that there is a close connection between the condition of the atmosphere and the physical and moral welfare of the people. The results of these investigations are as follows:—Taking in the whole country during January, February, and March, there were in round numbers 1,800 suicides reported in the United States; while in July, August, and September there were 1,600. In the same period there were 1,900 murders in the cold term, as compared with 1,200 in the three hot months. There were 30 persons hanged in proportion for those cold months, and 118 lynched or judicially executed for those hot

mention. The investigation is said to have been instituted with the idea of issuing in the near future warning of the approaches of crime waves.

THE PLAGUE IN CALCUTTA. NO NEW DISEASE.

Cases of malignant fever of a distinctly fatal type and officially declared to be "sporadic plague," continue to be furnished out of the dirtiest and most unhealthy plague spots in the city. From the date of the official announcement of this disorder as plague, 106 suspected cases have been reported and 81 have turned out fatally up to the 18th instant. There is considerable doubt as to all of these cases being of one and the same kind, or even one of the three different types of "plague," so that, as a matter of fact, while dysentery, cholera and famine-stricken people *in articulo mortis*, have been pronounced as cases of "sporadic plague," there is infinite difficulty incorrectly stating, as a matter of indisputable truth, how many of these cases are real and how many are spurious. For all this, however, the city is condemned as a *plague infected* locality, and its commercial prosperity is doomed. We say doomed, because house-to-house visitation, if commenced fifty years ago, would have produced similar results in the discovery of certain types of malignant fever; and if the same process is continued for the next half century, there will be no dearth of discovery of similar cases, for as long as such festering plague spots as are at present to be found, exist all over Calcutta, so long will our unfortunate experiences of "sporadic plague" be monotonously unchanging. These are stern and solemn facts, and they can be borne out by the experience of the oldest living medical practitioners of the city and by the writing of still older though long departed ones.

INDIAN MEDICAL REGISTRATION IN PARLIAMENT.

It must be extremely gratifying to the Indian Medical Association to find that its laudable efforts to bring about the enactment of a Medical Registration Act for India are rapidly moving towards success. The fact that this important measure was considered by the General Medical Council of Great Britain at its last session, though with no very definite results, is still satisfactory. That its further efforts have resulted in a question being asked in Parliament, is another step in advance, and ought to encourage India and the local profession with the hope that the goal is approaching and victory is nigh. We quote the following paragraph from the *Lancet* of the 28th May —

"Sir WALTER FOSTER, M.D., M.P., asked the Secretary of State for India on Tuesday, the 17th May 1898, whether he was aware that at present uneducated and unqualified persons have as much right to practise medicine in India as fully qualified practitioners; and whether in view of the danger to which the Indian people are thereby exposed, he would consider the advisability of instituting a system of registration for medical practitioners similar to that which exists in Great Britain and Ireland. Lord GEORGE HAMILTON replied. The answer to the first branch of the question is in the affirmative and that to the second branch in the negative. It would be, in my judgment, impossible in the present condition of India to prevent the people of that country from resorting to native practitioners, even though they may be regarded by Europeans as not fully educated or qualified for the work they undertake.'

HAVE THE PUBLIC FAITH IN OFFICIAL COMMITTEES?

In answer to the above question, Reuter telegraphs — "The Governor of the Bank of England, in a letter to Lord GEORGE HAMILTON, says that the majority of the Indian Currency Committee consists of officials, and as now constituted, the Committee fails to command the confidence of the city."

In spite of the fact that under the new "Sedition Act," anything, "from winking one's eye to damning the Viceroy" may be construed into sedition, we desire to say in answer to the question that heads this comment, *the public have no faith* in the Bengal Plague Commission, the majority of whom are officials, who, as a matter of fact, are cooling their heels in Darjeeling, and whose full and thought-out connection with plague matters in Calcutta, may be summed up in a little word of three letters—NIL. Where is the Bengal Plague Commission! Echo answers where?

ROYAL COLLEGE OF SURGEONS IN IRELAND.

SAYS the *British Medical Journal*:—"The election of President, Vice-President, and Council will take place on the first Monday of June. Mr. R. L. SWAN, Surgeon to Steevens's Hospital, will succeed to the presidential chair, which has now been occupied for two years by Sir WILLIAM THOMSON. For the vice-presidency, which becomes vacant by Mr. SWAN'S promotion, there are two candidates, Dr. C. B. BALL, Regius Professor of Surgery, Trinity College, and Mr. THOMAS MYLES, Surgeon to the Richmond Hospital. It is believed that the contest will be very close. For the Council Mr. H. G. CROLY, Mr. M'CAUSLAND, Mr. ROBERT H. WOODS (who retires from the secretaryship to Council), Dr. CRANNY, Mr. CHANCE, and Mr. J. HARRISON SCOTT will be candidates."

WHERE LIFE IS LONGEST.

OF all the countries in the world, says the *Philadelphia Medical Journal*, it is Servia which contains the most centenarians. In this little country, which has less than 1,300,000, inhabitants, there are actually 575 persons whose age exceeds 100 years. Ireland comes next in the list with 578, but then her population is very much larger than that of Servia. Spain has 401 out of a population of 17,000,000, and France counts 213 among her 38,000,000 inhabitants. England, Scotland and Wales can only muster 192 between them, and Germany with her enormous population of 55,000,000, has but 78. Norway has 23 out of 2,500,000 inhabitants and Sweden a population of nearly 5,000,000, and only 20 centenarians Denmark has but 2, and in little Switzerland there is not a single person whose years number five score

CHLOROFORM SYNCOPE RESTORED BY ARTIFICIAL RESPIRATION AND NITRITE OF AMYL.

IN the *Lancet* of 19th September 1891, page 665, EDWARD RICE, M.D. London, of Oxford, reports a case of chloroform syncope restored by nitrite amyl and artificial respiration. The subject was a woman, 40 years old, and was chloroformed through a Junker's inhaler, for the purpose of having a growth excised. Three drachms of chloroform were inhaled and syncope ensued. Dr RICE insists that the pulse failed *first* and then the respiration Immediately artificial respiration was resorted to, and a capsule containing three minims of nitrite of amyl was snapped and applied to her nostrils. An enema of brandy and water was also given. These means restored her. The patient had taken sulfonal freely the previous night.

BEWARE OF TABLOIDS. DEATH BY MISTAKING ONE FOR ANOTHER.

THROUGH an error on the part of a chemist in Melbourne, who substituted sulphate of atropine for muriate of morphine, Dr. S I. Williams met with a tragic death. He was on his way to visit a lady patient, and stopped at a chemist's to obtain some morphine solution. The chemist made a solution with atropine instead, and the doctor, who was in the habit of taking morphine largely, gave himself an injection before entering the house. After administering a dose to the patient, he gave himself a second injection and immediately afterwards became ill, then unconscious, and after lingering a while sank and died. The patient also exhibited symptoms of poisoning, but recovered.

[illegible]

[illegible] "[illegible] Memorial" [illegible] Medical College [illegible] late Brigade-Surgeon Lieutenant-Colonel [illegible] McCONNELL, who was for many years connected with the College as a Professor, was performed on Monday, [illegible] June, 1898, by Surgeon-Lieutenant-Colonel BOMFORD, Principal of the College, in the main hall of the new building known as Chooney Lall Seal's Dispensary, [illegible] south-east of the College. There was a large attendance of the students, and of members of the medical profession. On Dr. BOMFORD being voted to the chair, the Honorary Secretary of the McCONNELL Memorial Committee read a short report of the work done by the Committee for the purpose of perpetuating the memorial of the late Professor, to whom it was decided to erect a brass memorial tablet. The Committee was indebted to Dr. BOMFORD for his valuable advice and assistance, and for according the site of the tablet in the Chooney Lall Seal's Dispensary. The Committee also tendered their thanks to Dr. R. BIRD, Dr. J. F. EVANS, Dr. KEDAR NATH DASS, and others, who have helped toward the erection of the tablet. In conclusion, the Secretary requested Dr. BOMFORD to unveil the tablet which is inscribed as follows:—"To the memory of Brigade-Surgeon-Lieutenant-Colonel JAMES FREDERICK PARRY McCONNELL, M.D., F.R.C.P., I.M.S. for many years on the staff of this hospital, first as Resident Physician and Professor of Pathology and afterwards as second physician and Professor of Materia Medica. Born 18th January 1848, died 24th August 1896. Erected by the students of the Medical College in token of their esteem and regard for one whom they revered as a teacher and loved as a friend." Before the unveiling ceremony was performed, Mr. WOOD read a letter from Mrs. McCONNELL, who expressed her grateful acknowledgment of the kindly feeling which prompted the students to raise a permanent memorial to her husband's memory. Dr. BOMFORD, after unveiling the tablet, which occupies a prominent position in the main hall of the new building, addressed the assembly. He paid a generous tribute to the high attainments and medical skill of Dr. McCONNELL. He had won the esteem of both his patients and the students of the College, in whose education and welfare he always took a deep interest. With the customary vote of thanks to the chair the proceedings terminated.

PLAGUE IN BOMBAY AND IN THE PUNJAB.

THE plague figures for the past three days shows that on Saturday there was 5 new cases and 2 deaths; the mortality from all causes being 79, being the same figures as those on the corresponding day last year. Sunday's returns show 13 new cases and 1 death. There were 63 deaths from all causes. On the corresponding date last year there were 7 seizures, with 4 deaths, and 91 deaths from all causes. To-day there were 2 fresh attacks and 4 deaths. There were 60 deaths from all causes. On the same day in 1897 there was 1 seizure. The plague deaths numbered 4, while those from all causes were 68.

The returns for the 12th instant for Karachi show 16 cases and 18 deaths; the totals to date being 2,849 cases and 2,237 deaths.

The plague returns from the infected area continue to be satisfactory and are re-assuring in both the Jullundar and Hoshiarpore districts of the Punjab. The returns of the 7th and 8th instant show no fresh cases and no deaths. Four villages are declared free of plague.

TO DISGUISE BITTER TASTING MEDICINE.

THE *N. Y. Medical Record* says:—"A plant grows in Assam, the botanical name of which is Gymnema sylvestre, which has the peculiar property, when chewed, of temporarily neutralizing the sense of taste as regards sweet and bitter things, while that for sour and saline substances remains unaltered. The Hindus claim that the plant is an antidote to snake-bite. However that may be, it is believed that the plant might be advantageously introduced in our pharmacopœia as a means of disguising the bitterness of quinine and other disagreeable medicines."

ANOTHER ANGLO-INDIAN SUCCESS.

Among the passengers who embarked from Madras the other day on board the s. s. *Assaye* for England was Mr. W. C. BOWEN, a son of Mr. JOHN BOWEN, the Presidency [illegible], and a pupil of the local Medical College. Mr. BOWEN is an Anglo-Indian, and headed the list of the successful [illegible] at the last [illegible] examination [illegible] won the medal for Midwifery, the [illegible] Prize and the Johnston Gold Medal. His object in going to England is to compete for the Indian Medical Service.

THE I. M. S. AND THE NEW MEDICAL REFORM BILL.

NOTHING officially has yet reached India regarding the manner in which the Indian Medical Service will be affected by the re-organisation of the Army Medical Staff. Presumably, says the *Pioneer*, the Secretary of State will send out a despatch on the subject shortly. It is not known when the new Warrant will be issued, but in the House of Commons a fortnight ago, Mr. Powell Williams stated that the delay was in regard to the settlement of "some minor points which required reference to India."

UNQUALIFIED MIDWIVES.

THE opinion of Mrs. Garrett Anderson, who may be supposed to represent the best opinion of her own sex, and who writes with full knowledge of the fact, that if all women are to have skilled attention, the majority must now and always be attended by men, strongly objects to the measure, and fully recognises the danger of labelling a whole host of unqualified women, and a handful of very indirectly qualified ones with any title whatever implying a Government guarantee.

THE ACTING PRINCIPAL OF THE CALCUTTA MEDICAL COLLEGE.

SURGEON-MAJOR G F. A. HARRIS, L.R.C.P. Lond. (1878), M.R.C.S. Eng. (1877), who has been appointed to act as Principal of the Medical College Hospital while Dr. Bomford is away on furlough, has hosts of friends. He was a great favorite in Simla society some eight years ago, when he was Civil Surgeon there. In musical circles Dr. Harris has proved quite an acquisition, and his delightful performances on the violin are pleasurable remembrances of many enjoyable evenings on the hills. But he is a thoroughly good practical physician as well as a trained medical administrator.

SHORT ITEMS.

A heavy drinker, who had suffered for years with symptoms of gastric atony, frequently vomitted, and on several occasions found worms in the ejected material. These proved to be larvæ of some species of fly. Bachmann prescribed an infusion of Persian insect-powder, with the result of finding in the stools masses of dead and partially digested larvæ. The patient had no further symptoms.

The 1st January 1900 has been fixed for the awarding of the Samuel D. Gross prize of $1000 for the best original essay founded upon original investigation on some subject in surgical pathology or surgical practice. Only American citizens may compete, and the essay must not exceed 150 printed pages, octavo size. Further particulars may be obtained from D. J. Ewing Mears, 1429 Walnut Street, Philadelphia: Pa. U. S. America.

An exchange reports that in an examination that was made of some "electric bells" sold by a street fakir, it was found that beneath a strip of gauze was a layer of dry mustard. When the wearer perspired a little, the mustard was moistened and set up a burning sensation, and the deluded victim believed a current of electricity was passing through him.

The half-yearly examination for the Fellowship of the Royal Colleges of Surgeons in Ireland came to a conclusion by a conference on 21st May. The number of candidates was unusually large and included a lady graduate in medicine of the University of Calcutta. Miss Cohen passed and was entered on the roll as a Fellow of the College, she being the third lady who has received such honor.

Premature burial, it is reported, will claim a large share of attention in the medical section of the National Exposition which will be held at Turin, in Italy, this year. The object in view is to induce all countries to make laws requiring corpses to be kept for a fixed period before cremation or burial.

Austrian pharmacists ought to make a good thing of it since the people are many and the pharmacies few. Thus while Vienna has a population of 1,364,180, it boasts of 106 pharmacies or 1 for every 12,850 inhabitants. Karolinenthal with her 22,586 souls has but one pharmacy and the proportion of pharmacies to inhabitants is as 1 : 10,561 in Budweis.

Any person who spits in a street car or public building under Government control in the District of Columbia is liable to a fine of $10. California carries things a bit further and the other day sentenced a millionaire to 24 hours' imprisonment in the San Francisco Jail, for spitting where he shouldn't.

In commemoration of the Queen's Diamond Jubilee, the American community in England has presented £1,000 to each of the five leading hospitals in London for the "endowment of a bed in perpetuity" on condition that Americans will be given the preference, though the beds may be used by any one else.

The Mysore Government have put an end to the exclusive privilege of distilling sandalwood oil in that State by rejecting the application of a Coonoor distiller, Mr. H. S. Lee, who applied for the monopoly for a period of ten years The monopoly granted to Mr. F. P. Hay, of Hunsur, some years ago, was cancelled in 1896.

A warrant has been issued for the arrest of Pilot Simmonds, of the Rangoon Service, on a charge of defaming Surgeon-Lieutenant-Colonel Thomas, Civil Surgeon and Port Health Officer of Rangoon. The accused, it is alleged, cast reflections upon the manner in which the inspection of female passengers from Calcutta was conducted.

A New York doctor sued a lady patient to recover $60 for professional services. She opposed his claim as exorbitant and has raised a counter-claim of $100 for "time lost" as she alleges that the majority of the doctor's visits were more of a social than of professional nature.

The will, with two codicils, of Sir Richard Quain, Bart., M.D., F.R.C.P., &c., who died on 13th March, has been proved by his brother, Mr. F. Quain, of Mincing Lane. The testator's gross estate is sworn at £118,121 13*s.* 2*d.*, the net personalty being £116,820.

Sir William Thomson, President of the Royal College of Surgeons in Ireland, was entertained at dinner by the Vice-President and Council on Saturday, 14th May, in the Shelbourne Hotel. The chair was occupied by Dr. R. L. Swan, the Vice-President.

In case of delirium tremens Crothers uses in the early period, free bathing and catharsis without narcotics. When exhaustion and sleep come on, the latter is encouraged and strychnin nitrate is given as a stimulant. Physical restraint should not be used, unless absolutely necessary.

Ribbert calls attention to the parasitic nature of tumors. The individual cells appear to have all the qualities of parasites, growing independently in the host, excepting that they prey upon it for nourishment without regard to the conditions necessary for its well-being.

I have not failed once for many years, by putting a blister over the fourth and fifth dorsal vertebræ, to put an end at once to sickness of pregnancy during the whole remaining period of gestation, no matter at what stage of the case I was consulted." So says Professor Parvin.

The Calcutta Homœopathic Medical School has just passed twenty-one students as Licentiates, 5 in the First and 16 in the Second Division, among whom one comes from the Punjab. This School of Medicine will be opened on the 22nd with an introductory address. This is another Indian Diploma Mill not under State control.

Mr. Charles Sizmore Tomes, F.R.C.S., Eng., F.R.S., L.R.C.P. has been nominated a Crown Member of the General Council of Medical Education and Registration of the United Kingdom in the vacancy created by the death of the late President, Sir Richard Quain.

The Colonial Office has received a telegram reporting that during the week ending 21st May there were 112 cases of plague in Hong-Kong and 107 deaths resulting from the plague. These figures show some decrease in the ravages of the disease.

The Ohio State Legislature are trying to pass a "bill" for the castration of any man who is convicted of criminal assault on a female and particularly upon any girl under fourteen years of age.

With the waning of the plague in Bombay, the Plague Committee there has been abolished and the Municipality is responsible for the sanitation of the city and affairs generally connected with the Health Department.

Surgeon-Major G. F. Harris, Civil Surgeon of Nagpur, succeeds Surgeon-Lieutenant-Colonel G Bomford, who takes one year's furlough, as Principal of the Medical College, Calcutta.

Cardinal Gibbons, Bishop Paret and several prominent citizens of Baltimore have started an antivivisection crusade, which is particularly directed against the medical school of Johns Hopkins University.

Ausona has at last adopted a medical examining board, while veterinary surgeons are not permitted to run dry stores in Missouri unless they have qualified and registered as pharmacists.

He was a very able linguist and one day a friend said to him: "They tell me professor that you have mastered all of the modern tongues. "Yes," replied he, "all but two my wifes and her mothers."

"*Know* syphilis in all its manifestations and relations," says Dr. W. Osler of Philadelphia, "and what remains to be learned will not stretch the pia mater of a megalocephalic senior student."

There is every probability of Surgeon Lieutenant-Colonel Franklin succeeding Surgeon-Lieutenant-Colonel Raye as Inspector-General of Civil Hospitals, Punjab, when the latter proceeds home on furlough.

In septic conditions the patient is often very uncomfortable by reason of dryness of the tongue. A bit of ordinary chewing-gum will usually start the oral secretions and in a very short time give relief.

The Madras Government has sanctioned an outlay of Rs. 1,70,000 for the construction of quarters near the Memorial Hall for the accommodation of the Apothecaries attached to the Madras General Hospital.

Surgeon-Colonel K. MacLeod, Professor of Military Medicine, Army Medical School, Netley, was presented to Her Majesty on the occasion of the Queen's recent visit to Netley Hospital.

The Council of the British Medical Association have just completed the purchase of the freehold site upon which are situated their premises at the corner of Agar Street and the Strand. The purchase-price was £79,000.

Special leave for six months has been granted to Surgeon-Lieutenant-Colonel G. Ranking, M.D., Secretary, Board of Examiners, with effect from 1st July next.

Surgeon-Major D. G Crawford, Civil Surgeon of Monghyr, has been appointed to succeed Surgeon-Captain Pilgrim as officiating Civil Surgeon, 24-Parganas.

Surgeon Lieutenant-Colonel C. J. H. Warden, I. M. S., Medical Storekeeper to Government, Bengal Command, is granted two years' furlough.

Surgeon-Captain B. B Grayfoot, I. M. S., officiates as Medical Storekeeper, Bombay Command, *vice* Surgeon-Lieutenant-Colonel J. Parker, on leave.

Dr. Gustmann, of Frankfort, has published a monograph showing that no less than 80,000 school-children in the German Empire suffer from stuttering.

Professor von Esmarsch, who is over 76 years old, has announced his intention of resigning the chair of surgery which he has held at the University of Kiel since 1857.

Dr T. C. Hayes has been elected Professor of Obstetric Medicine and Diseases of Women and Children, and Dr. John Phillips, Lecturer in Practical Obstetrics in King's College.

The Lord Mayor's dinner in support of the London Hospital last week resulted in the collection of £75,000, with annual donations of over £4,000.

Professor Michael Foster will preside over the meetings of Council of the British Association to be held next year at Dover.

Brigade-Surgeon Lieutenant-Colonel W. Flood Murray, Civil Surgeon of Shahabad, has been allowed privilege leave for ninety days, from the 1st instant.

Surgeon-Major J. Grainger, on return from military duty, has been appointed Civil Surgeon of Champarun, during the absence, on deputation, of Surgeon-Major R R. H. Whitwell.

Danner records a case of external feminine pseudo-hermaphroditism, the patients being 33 years old and of Italian descent. After marriage she became twice pregnant.

Surgeon-Lieutenant-Colonel W. Coates, M D., Civil Surgeon of Lahore, proceeds on six months' leave, and is to be succeeded by Surgeon-Major J. A. Cunningham from Multan.

A very red tongue indicates the need of acids in the system. Five drops of *dilute* nitro-hydrochloric acid in water fills the want satisfactorily.

Brief Pointers.—Whipped raw eggs possess great nutritive value, and are very easily digested.

Assistant Surgeon P. S. Blaker, of Calcutta, has successfully passed the M.R.C.S. England.

Mr. A. R. Khan has successfully passed the first professional examination of the University of Edinburgh.

Brigade-Surgeon-Lieutenant-Colonel W. McConaghy, Bombay, officiates on the Administrative Staff of the Army.

In future, physicians practising in any part of the State of Texas must pay an "occupation" tax.

On return from military duty, Surgeon-Captain E. Herald Brown, M.D., has been re-appointed Civil Surgeon of Purneah.

DEPARTED INDIAN WORTHIES.

DEPUTY-SURGEON-GENERAL S. B. PARTRIDGE, F.R.C.S., C.I.E., Q.H.S.

Bengal Medical Service (Retired.)

On 11th May, in the presence of relatives, brother officers, and friends, the mortal remains of SAMUEL BOWEN PARTRIDGE were laid to rest in the cemetery at Norwood.

This distinguished medical officer was born at Cardiff in 1828 and was educated at King's College, London, where he had a most brilliant career, during which he gained many prizes. After passing the Royal College of Surgeons he entered the East India Company's service on the Bengal establishment as an Assistant Surgeon in the year 1852. Shortly after his arrival in India he was ordered to Burmah to join the Bengal Field Force, and after performing excellent service in a variety of ways, on his return to Bengal he served as Civil Surgeon and also with a cavalry regiment. On the outbreak of the mutiny in 1857 he served with a cavalry regiment in Oudh, and when the siege of the Residency of Lucknow commenced he served throughout the whole of that eventful period in Dr. FAYRER'S house in the garrison, where his energy, activity, and professional knowledge were of the greatest benefit. He was present with the expedition under Colonel BURMESTER, in which several officers were killed, and he also accompanied the ill-fated expedition to Chinhut, where he had a narrow escape of losing his life. Subsequently he distinguished himself as Field-Surgeon in the operations under the Commander-in-Chief at the recapture of Lucknow. For these services he received the brevet promotion of Surgeon, was allowed to count a year's service, and received the thanks of Government in general orders.

The state of his health after all these exceptional services rendered it necessary for him to return to England. After a short stay, during which he became a Fellow of the Royal College of Surgeons, he resumed his duties in India, and was then appointed to the Medical College of Calcutta, in which he had on a former occasion officiated for a short time, as Professor of Anatomy and Surgeon of the Medical College Hospital. He was also an Examiner in the University of Calcutta, a Member of the Senate, and for a short time President of the Medical Faculty of the University. Subsequently, on the retirement of Dr. FAYRER, he succeeded to his appointment as First Surgeon and Professor of Surgery in the Medical College Hospital, which appointment he continued to hold with the greatest distinction. In addition he had an extensive practice in Calcutta until 1880, when he retired from the service.

After his return to England Deputy Surgeon-General PARTRIDGE was appointed member of the India Medical Board at the India Office, where he rendered most valuable service, until loss of sight made his resignation of that appointment necessary, to the deep regret of his colleagues and friends.

The news of his death will be received in India, as it has been in this country, with the greatest sorrow. He was held in the highest esteem by everyone who knew him; no man was ever more deservedly loved and respected than he was. His intellectual powers were great, and he was as much characterised by the breadth as by the accuracy of his knowledge; most laborious in his studies, most persevering in pursuing to the end any object which he had undertaken; with the profoundest mathematical problems as with the simplest piece of mechanics he was equally at home. As an anatomist he was unrivalled in the clearness of his demonstrations; as a surgeon he was remarkable not only for his skill as an operator but for his great powers of diagnosis, nor

was be remarkable for his capacity for dealing with disease in its tropical and other forms, whilst his firm, gentle, and patient method of treatment inspired all who came under his care with confidence and affection. Notwithstanding his great attainments and his remarkable intellectual power, he was as humble as a child. The simplicity of his character was not less marked than its strength. He was naturally beloved by all his brother officers, associates, and pupils, and in fact by everyone who knew him. Whilst so gentle and tender in every way, a rock was not firmer than he where firmness was required. Not even HAVARD himself, or OUTRAM (with whom he was justly compared) better deserved the title of "Chevalier sans peur et sans reproche."

On Deputy Surgeon-General PARTRIDGE'S retirement from the India Office the Government signified their approval of his services by creating him a Companion of the Indian Empire. He had previously been made an Honorary Surgeon to the Queen, and had also received a medal and clasp for Burmah, and a medal and clasp for the seige and for the recapture of Lucknow.

ALFRED JOHN WALL, M.D. LOND, F R C S
Indian Medical Service (*Retired*)

DR. WALL, whose death was announced a few days ago, was the son of a medical man who had a large practice in the West End of London. He was born in 1847, and after receiving his preliminary education at Epsom College, matriculated at the University of London in 1865; he then entered St. Mary's Hospital, where he was known as a hard worker and won a number of prizes In 1868 he gained the Scholarship of Anatomy of his school, a distinction which carried with it the title and duties of Assistant Demonstrator of Anatomy. In 1870 he was appointed Resident Medical Officer of the hospital, becoming Resident Obstetric Officer in 1871. He took the degree of M B in 1871, that of B S in the following year, and that of M D in 1876 In 1872 he became a Fellow of the Royal College of Surgeons of England by examination. He took a high place in the examination for the Indian Medical Service in 1873, and almost immediately on his arrival in India in the early part of 1874 he was appointed Resident Medical Officer at Bhaugulpore.

In 1875, when the Snake Poison Commission was appointed, Dr. WALL was offered a seat on it The greater part of the practical work of the Commission fell upon him as the youngest member He held the position for three years, and then, in consequence of failing health, he sent in his resignation. He was twice asked to reconsider this step, but when he adhered to it, he received a letter of thanks from the Government for the valuable work he had done, and was given his choice between an appointment as Residency Medical Officer in Nepaul and Deputy Professor of Anatomy in Calcutta. Consideration of health led him to choose the former. Some time afterwards, when travelling on furlough, he contracted malarial fever, which became complicated with pneumonia. In consequence he came home invalided, and never recovered sufficiently to return to India.

In 1883 he published a book entitled *Indian Snake Poisons*, which made his name widely known. He next took up as a subject of special study the cholera, and followed successive outbreaks of the disease over Europe. In Italy and Sicily he was especially distinguished for his services during these. The Municipal Council of one town presented him with an address and the freedom of the town in recognition.

In 1893, as a result of these travels and investigations, he published a book on *Asiatic Cholera*, which was favorably received.

He had always been an indefatigable student of posterity, and he now turned his attention still more closely to it, working at it for many months together in Berlin, Berlin, and Paris.

In December 1897, he left England with the intention of going to the Riviera, in the quiet there to put his psychological notes into form. But whilst staying in Paris *en route* he became so ill that by the advice of a specialist whom he consulted he returned to England and asked his sister to go to Hastings with him.

His condition became so much worse that on 21st April he was brought up, under care, to London, and after consultation with Dr. SAVAGE was placed in charge of a trained attendant under the care of a medical man. On Wednesday, 27th April, he managed to escape from his attendant by going out another way from St. George's Hospital, where he had gone, he said, to call upon some friends on the medical staff there. Although the police were at once communicated with in London, and telegraphed to stop him at the ports of Dover, Folkestone, Harwich, and Newhaven, nothing was heard of him by his friends until the following Monday, when, in consequence of information received by his sister, she went down to Guilford, and identified a body lying there as that of her brother. He had made his way there the previous Thursday and early in the morning had ended his life by stabbing himself to the heart A *post-mortem* examination showed that Dr. WALL was suffering from thickening of the membranes of the brain, and this, together with the evidence his sister was able to give at the inquest that evening, caused an immediate and unanimous verdict of "Whilst of unsound mind" to be returned, in which the coroner fully concurred

Another St. Mary's man and intimate friend of Dr WALL from student days writes of him —

"In manner he was diffident, quiet, and retiring He was extremely well informed in every subject of art, science, and ligature—the best possible of companions He talked German, French, and Italian fluently, and was keenly interested in the politics as well as the literature of the countries in which he made his home."

This brilliancy of mind continued to the last, and even whilst under medical care and restraint he captivated all whom he came in contact by his mental power and gentleness of demeanour Throughout his life Dr WALL had been singularly abstemious, and of very regular and quiet habits.

SURGEON-GENERAL JAMES IRVING, M.D
Indian Medical Service (*Retired*).

THIS officer died at Clifton on 3rd May at the age of 75 He was born in Edinburgh in 1822 and after graduating in the University of that city in 1843, entered the Bengal Medical Service in 1847 He attained the rank of Deputy Surgeon-General in 1874, and retired with the honorary rank of Surgeon General on 13th December 1879 He served with distinction throughout the Indian Mutiny. Most of his executive service was spent in the North-West Provinces, where he held important civil charges. For many years he filled the responsible office of Civil Surgeon of Allahabad, and gained a high reputation as a skilful physician and surgeon. Under a somewhat testy manner he concealed a kindly disposition and most charitable heart, and his advice and aid were eagerly sought and highly valued by those in sickness or trouble. He was an observant man and hard worker, and contributed several papers to the medical press, the best known being Observations on the Palsy caused by the Vetch (Lathyrus Sativus).

His administrative life was spent in Bengal. He was the first Surgeon-General of the combined provinces of Bengal, Behar, and Orissa when the separation took place in 1878 between military and civil medical administration. His work in this capacity was characterised by competence, independence, and shrewdness. Since his retirement he has lived a quiet life, devoting himself to labours of charity and kindness. He was emphatically a conscientious, good man, able withal, and devoted to his profession.

SANITARY MEASURES IN INDIA.

IV.

Although the death-rate of Madras, averaging, since 1874, 45·24 per 1,000, is considerably larger than that of either Bombay or Calcutta, the information and particulars given in the volume on "Sanitary Measures in India" as to its insanitary condition are much more fragmentary and meagre than in the cases of those cities. For some non-explained reasons the report of the Health Officer for Madras is not included therein, and the report of the Madras Municipality is published without that part treating of its insanitary conditions.

Perhaps the insanitary condition of Madras, given in the suppressed reports, is, in the opinion of the Indian authorities, too disgraceful to be made public, but, after the revelations published as to Bombay and Calcutta, if this is the reason, it very much resembles straining at a gnat and swallowing a camel.

The year 1894 was, for Madras, a comparatively healthy one, the death-rate being the lowest since 1885.

The Army Sanitary Commission remarks on the subject "It is evident from the small sums expended during the year in improving the drainage and water supply of the city, that no substantial progress has been made towards remedying the radical defects in either, only £6 849 10s. having been expended on the former and £6,862 on the latter. The drainage scheme proposed by Mr COUSINS may be excellent, but it is very expensive, and the municipal authorities may be excused if they hesitate to undertake a work estimated at £280,000, until after they have become convinced that the effectual drainage of their town cannot be carried out at less expense. When once the main arteries of a good sewerage system are laid down, the sanitation of the town will be much simplified.

A water supply scheme has also been proposed by Mr. COUSINS; but as this would involve an annual expenditure of £40,000, it is considered beyond the utmost strain that the municipal finances could bear. It is clear from the description given of the water supplied to the city that this should undergo filtration before distribution; but as it has not a sufficient head to admit of its being conveyed on to the filter beds unless first lifted by pumping, and as the cost of this would be prohibitive, the difficulty seems to be for the present insurmountable

Other improvements having for their object the more efficient removal of night soil and refuse, the prevention of intramural burial, the opening up of overcrowded parts of the town, the admission of sea water into the stagnant and fetid Cooum river, and such like, need not be interrupted because of the delay in arriving at a decision regarding the proposed drainage and water supply. But until these latter are undertaken and carried out, Madras will almost certainly continue to enjoy the unenviable reputation of being the unhealthiest of the three Presidency towns. All other improvements are of comparatively minor importance, and their effects, as measured by the death-rate, will probably be inappreciable.

The death-rate fell from 41, in 1893, to 36 5 per 1,000, but was still considerably higher than that recorded in the other two Presidency towns, although in these latter the year was an exceptionally unhealthy one Of the chief diseases, fever was, as usual, credited with the larger share of the deaths. Although less fatal than during the preceding year, the mortality caused by it was much in excess of the average for the previous 10 years. Until Madras is provided with an efficient drainage and sewerage system, diminution in the annual mortality from fever need not be looked for. On the contrary, as pollution and sewage logging of the soil must go on increasing in the absence of effectual drainage, the death-rate from fever may be expected to likewise increase. The mortality from dysentery and diarrhœa, although high, was below the average. The indifferent quality of the water supply doubtless favors the prevalence of these diseases.

The number of deaths in 1894 was 16,342, a decrease of 2,042, or 11·02 per cent, under 1893; of [illegible], or 20·65 per cent, under 1892; of 7,366, or 30·6 per cent, under 1891; and of [illegible], or 2·79 per cent. under 1890. The death-rates per 1,000 were, in 1894, 36 5; in 1893, 41; in 1892, 46; and in 1891, [illegible]. As in the case of Bombay, statistics date from 1874, and the average death-rate per 1,000 for the period 1874—94, is 45·24. The highest rate, [illegible] per 1,000, was in 1877; the nearest to the average, 46, in 1892; and the lowest, 34·7 per 1,000, in 1879. Dividing the whole period into three terms of seven years gives an average death-rate of 52·73 per 1,000 for 1874—80; of 40·17 per 1,000 for 1881-87; and of 42 88 per 1,000 for 1888-94. Dividing the period into seven terms of three years, there was considerable fluctuation, the highest rate, [illegible] per 1,000, being in 1877-79; the nearest to the average, [illegible] per 1,000, in 1874-76; and the lowest, 37 2 per 1,000, in 1880-82. Bearing in mind the necessary caution as to the value of registration statistics in India, these figures show a great improvement in the middle period which was not kept up in the third period.

The great difficulty in dealing with the problem of Madras sanitation lies in the fact that the high death-rate is not the result of any one cause, but of a conjunction of nearly all the causes that affect mortality all over the world. The most important, briefly, are, an indifferent water-supply, defective drainage, and, over a considerable portion of the municipality no drainage at all, a porous soil loaded with organic impurity, a putrid and fluctuating subsoil water rising comparatively near the surface, want of open spaces in some parts of the town, crowded parcherries for the poor, overcrowded and ill-ventilated houses for the middle classes, in many cases directly connected with the subsoil water by wells in their interior, burial grounds and slaughter houses in the city, and lastly, the general social, conjugal, and religious habits of the people. These are matters which can only be remedied by a heavy expenditure of money and years of systematic and patient work. There can be no doubt that the high death-rate is due to local conditions and not to climatic influence, for both Europeans and natives who live in well-built houses in the better parts of the town, and are properly clothed and fed, enjoy a comparative immunity from disease and death.

The chief causes of death in Madras were fever, dysentery, and measles, and formed 52 69 per cent. of the total Deaths from fevers, 37 05 of the whole, were 6,128, a decrease of 500, or 3·02 per cent, under 1893. Although this is an improvement, it cannot be considered satisfactory, as it is still far above the average. The death rate per 1,000, 13 5, fluctuated from 8 8 in the Eighth Division, South Ward, to 21 7 in the Third Division, Centre Ward. The mortality was much less in the rural and suburban areas in the south and south-west of the municipality, where aggregation is less, and there are plenty of trees to dry the ground, than in the crowded area of Black Town.

The general conditions which produce a heavy mortality from fevers in Madras are the general insanitary conditions which prevail, especially those due to the want of good drainage and pure air. The result is materially affected by the want of ventilation and overcrowding of houses, in which people breathe air vitiated by organic matter given off by the lungs and skin mingled with which are the gases from the sewage-poluted grounds and from the drains both inside and in the streets beneath the door and windows.

It is a matter of the greatest difficulty to diagnose a non-eruptive fever among people who rarely attend a hospital or avail themselves of the ministration of a medical attendant of any grade, and who, for the most part, die in their parcherries without being seen by anyone but their relatives.

According to a report of Mr. COUSINS, who visited Madras and examined the drainage and water-supply, Madras is drained on the open-channel system , that is, the drainage of the houses is discharged into open channels in the street, some of which are formed in the soil without brickwork, concrete, or any proper construction, whilst others are of defective brickwork with open joints, &c.

The open channels in Black Town and a few other parts of the district have been recently reconstructed in a very superior manner to those generally found. Under the system now pursued, all rubbish, dust, ashes, and the principal part of the solid excrementations matter are collected and removed by the conservancy carts and disposed of in various ways. The fouled water from the houses, the urine, part of the excreta mixed with the water used for the daily washing out of privies, bath, and sink water, &c., are discharged through the house drains into the open drains in the street.

House drains are usually constructed of very imperfect brickwork, having open joints and generally laid but a few inches below the level of the floors of the houses with

[illegible] The soil for some distance round these drains must of necessity be saturated with sewage, which must infuriously affect the health of the occupants. These drains eventually terminate at the front walls of the houses at a height of 2 or 3 feet above the public drains in the street; here the sewage pours or trickles down the surface of the front walls of house until it reaches the open channel, which conveys the sewage to a large open drain. Then it passes on into other wider and deeper drains, until, eventually, it is discharged into covered sewers, which convey the sewage to pumping station where it is pumped on to one or other of the 11 sewage farms.

When the engines or pumps at these stations are not at work, or if there is more sewage than the land and pumps can deal with, the overflow at such times is discharged directly either into the River Cooum, the Buckingham or Junction canals, or into the sea.

In some parts drains are found which do not connect with sewage farms, but empty their contents into the river and canals or stagnant pools. Thus the sanitary aspect of a Madras street presents the spectacle of a row of open house drains on either side of it discharging sewage matter into two open public drains. It is no matter for wonder that in all parts of the town the subtle odour of sewage, more or less strong, is distinctly apparent; and when the abnormally high death-rate accelerated by these insanitary conditions are considered together with the moral effect which the constant sight of the filth must have on the native mind, no more crushing arguments against the open channel system could be adduced. One disgusting practice alone under this system should be sufficient to ensure its abolition—the present method of the collection of the fæces by men and women.

If no back entrance exists to the house, the native must enter the back yard by a small covered inlet generally provided with a door. This opens from the street to the privy, where the man or woman collects the excreta of the household and conveys it to the pails in the carts in the streets, which are provided for its removal to the depôt. The privy is generally washed out at the same time, the fouled water going into the open drain in the street. I cannot speak too strongly against such a repulsive and loathsome practice. To the inhabitants it must be a source of supreme disgust, while its degrading influence upon those carrying out such work cannot be over-estimated.

Even in Black Town, where the open-channel system is seen at its best, the concurrent evils can be plainly noted; but in other parts, where, either through choked-up channels or insufficient gradients, the sewage remains stagnant or soaks through badly constructed or broken drains into the subsoil, the evil effects are patent to all.

A large proportion of the native population are shopkeepers; these, with their assistants sit month after month vending their wares in the impure atmosphere arising from the open drain immediately in front of their shops, while their customers stand over the same foul-smelling channel to make their purchases. The wonder is, not that the mortality returns are so high, but that they are so low under these conditions.

The solid contents of the sewage settle in the bed of the River Cooum, and form layer upon layer of horrible deposit, while the fluid portion emits the stench which has gained for the river its unenviable notoriety. As the hot weather increases, the river gains in potency until the noxious exhalations are apparent at a considerable distance.

The nuisance and inconvenience which must result for the numerous dwellers upon or near the banks must be very great; many large buildings, such as Government House, the Government Office, the Senate House, and the Penitentiary, are near it; whilst the effects on the inmates of the General Hospital and the Women's and Children's Hospital are matters for grave consideration. The river, also, breeds myriads of organisms, and is credited with producing the plagues of mosquitoes which at times infests Madras. In this cesspool of stagnant filth men may be seen every day fishing, and doubtless the results of their labors are vended for human consumption. Thus the river in its present condition is a standing menace to the health of the inhabitants of Madras during the time it remains a motionless pool in the centre of the town; even when tidal it is a source of great danger under the present conditions, as the decomposed and decomposing deposits on the bed of the river are disturbed by the action of the tidal waters, and thus permitted to freely throw off obnoxious gases. The greater part of this sediment would doubtless be removed when the river is in flood and flowing freely outwards to the sea, but this may only occur for two or three months in each year, for the remaining nine or ten months the mouth of the river is blocked by the bar, and the matters held in suspension unite more deposited.

No scheme of drainage for the town of Madras will be in the remotest degree satisfactory unless it provides for the total elimination of all sewage matter from the River Cooum.

Although the report was written in the middle of 1895, and in October 1895 the Army Sanitary Commission stated that Madras had arrived at a critical point in its sanitary history, it was not until last March that the Madras Government sanctioned the long-contemplated drainage scheme, but the main part thereof was postponed pending arrangements between the Government and the Municipality.

The deaths from dysentery and diarrhœa were 2,392, a decrease of 316, or 11·66 per cent. under 1893.

The principal water supply of the town is received from the Red Hills tank, arriving at the town after flowing through about six miles of more or less inhabited area. The distribution is on the "constant system," but pressure is insufficient, and at times the pipes at certain points are empty, irrespective of the whole town supply being turned off for two hours weekly. Flushing pipes dip directly over and into drains, certain mains pass through sewers, pipes to fountains pass beneath permeable gutters, and run close to old underground permeable drains; contamination by aspiration of air on fluids is therefore possible during temporary cessations of flow.

Another source of water-supply—the "town wells"—and that used by the British troops is derived from the subsoil flow in a belt of sand within the inhabited area of the town, and in former days yielded a fairly pure supply, but the wells are within the subsoil flow of the site of a sewage farm that is not under-drained, the farm being made of rubbish deposits that must contain tons of fæcal matter. It is not to be wondered at that the water is now pronounced chemically bad. Typhoid fever has been frequent and coincident with a general fall of the subsoil water level of the town site, and the source must therefore be regarded with suspicion, though no direct proof of specific contamination has been forthcoming. The conservancy arrangements of the municipality are bad in the extreme, both staff and plant being below actual requirements. Many of the old tanks of the town have been in former days, and up to the present time are, filled with town rubbish, and, therefore—in the absence of a complete night-soil system—with much excreta. Without entering into further details, it stands to reason that the subsoil of the town is peculiarly and unusually contaminated with organic matter, and is unfit for use as a water-collecting area.

No substantial improvement was produced during the year in the sanitation of Madras, but £40,000 was borrowed for expenditure upon the improvement and extension of the water supply. A scheme for the purification of the Cooum was approved by Government, and estimates for carrying it out were under preparation. The drainage scheme prepared by Mr. COUSINS was also under consideration, but the Government were of opinion that the cost of its execution, which would necessitate an increase of 62 per cent in the taxation of the city, was prohibitive, and that native habits and the conditions existing in the city would render the closed connection with houses proposed in it unworkable, and a source of danger rather than of benefit to the inhabitants. A modification of the scheme has since been proposed by a committee of the Commissioners and was under the consideration of the Government. Estimates were also drawn up for carrying out Mr. COUSINS' scheme of water supply. In addition to the above proposals for the more satisfactory disposal of the rubbish of the city were being matured, and other improvements were in contemplation. The execution of these schemes of improvement is expected to produce a real advance in the sanitary condition of the city.

The municipality was carefully inspected during the year. The highly unhealthy condition of the city having attracted the attention of the Madras Government, in 1890, a special committee was appointed to advise as to the nature of the urgent sanitary improvements, in connection with drainage and water supply, that were considered necessary. Rough schemes were formulated, and the Government, on the advice of the committee, employed a European expert sanitary engineer to advise and estimate for complete schemes.—*The Public Health Engineer.*

(To be continued.

VITAL STATISTICS OF CALCUTTA.

Statement of Deaths from Principal Diseases in Calcutta during the week ending 14th May to the 4th June 1892.

Week ending	Cholera.	Small-pox.	Fevers.	Bowel complaints.	Also other diseases.	Total.	Total population, according to the census of 1891.	Ratio per 1,000 of population per annum.
14th May	24	4	92	57	179	356	6,81,560	27 2
21st May	17	1	101	62	217	398	..	30 4
28th May	15	2	86	62	168	333	...	25 4
4th June	7	3	79	67	179	335	...	25 6

Current Medical Literature.

MEDICINE.

Varieties of Diabetes Mellitus.

DR. LEPINE shows that clinical observation distinguishes between certain varieties of diabetes mellitus. In the nervous variety the glycosuria is often quite moderate, and may even disappear, leaving behind a simple polyuria The type developed under the influence of gout in arthritic individuals is associated with an intermittent but abundant glycosuria, and is comparatively benign. Certain diseases of the pancreas, such as calculi of Wirsung's canal and sclerosis of the whole parenchyma, may be followed by a rapid and dangerous diabetes There are other varieties difficult to classify Each case is constituted by several pathogenic elements of varying importance Hyperglycæmia may be caused by lack of the physical storing of glycogen by the hepatic cells (azoamylia) and this condition of the cells may be caused by lesions or irritation of the nervous system, various poisons, ablation of the pancreas, etc Another cause may lie in the excess of primary proteolysis and in glycogenesis without glycogen It is a positive fact that in many cases of diabetes there is exaggerated destruction of nitrogen, and some diabetic patients excrete large quantities of sugar after the ingestion of much meat. There is ample justification of the assumption that sugar produced in the organism may be derived directly from albuminoid substances. In certain forms of diabetes the sugar may be lacking. It may disappear either by transformation into fat or by oxidation. The inadequacy of one or other of these two processes may constitute a pathogenic element of diabetes. There may also be a reduction in the amount of the glycolytic ferment, and the renal element must not be overlooked. In pancreatic diabetes there is azoamylia, diminution of the glycolytic ferment, diminished formation of fat, diminished production of sugar. In the nervous variety there is azoamylia, exaggerated hepatic glycogenesis, and diminution of glycolytic ferment The theory of multiple factors explains the infinite varieties of the disease.—*Sem. Med.*

Splenic Tumor in Rachitis.

DR. VON STARCK says, that in one hundred cases of rachitis the diagnosis of splenic enlargement was made sixty-eight times The situation of the tumor is the same as in the adult. There is no ground for the belief that the spleen is relatively larger during the first year of life than in the later years of childhood, yet during the first year the spleen shows an extraordinary tendency to enlarge under pathological conditions. The splenic enlargement, in the cases of rachitis examined, was generally medium. There is no constant relation between the severity of rachitic bone changes and the amount of enlargement of the spleen: the latter is more constantly governed by the severity of the accompanying anæmia. Autopsies on rachitic children (when other causes of splenic enlargement, *e.g.*, infectious diseases, could be excluded) showed a splenic tumor in over fifty per cent. of the cases. The tumor was more generally found in those presenting marked rachitic bone alterations yet even if the latter be very severe the enlargement may not exist The splenic tumor, either macroscopically or microscopically, shows nothing characteristic. The writer concludes that tumefaction of the spleen can hardly be considered a symptom of rachitis in children, and that it is caused by the same unknown noxious product that produces the rachitis.—*N. Y. Med. Jour.*

Differential Diagnosis between Gastritis and Cancer of the Stomach.

CHAUFFARD recognising the difficulty in differentiating hypopeptic gastritis from cancer of the stomach, says that variation in weight of the patient is a sign of great value. As a general rule, if a cancerous patient is put upon suitable diet and is given a great deal of rest, his weight will slightly increase, perhaps to the extent of three or four pounds. Such increase in weight is invariably followed by a progressive loss which continues without interruption until the patient is emaciated. A dyspeptic patient, on the other hand, will continue, under suitable treatment, to gain weight until a maximum point is reached, at which the weight is constantly maintained—a point which may be fifteen or twenty, or even thirty pounds in excess of the weight at the beginning of the treatment —*Med News*

Pyretic Drugs.

IN his Croonian lectures, Dr. W. HALE WHITE stated there are many pyretic drugs. Thus strychnine and caffeine both raise the temperature a little and large doses of quinine cause considerable elevation of temperature, which may suddenly rise to 104°F. in belladonna poisoning; but the rise produced by *b* tetrahydronaphthylamine in the pulse, respiration and temperature so resembles in extent and rapidity that caused by injuries to corpus striatum that it is probable that in this drug we have an agent that stimulates the thermogenetic centre without exciting the motor function of muscle; or, in other words, this drug, acting on the muscles through the central nervous system, is capable of producing a rise of 8° to 9 9°F. in one hour, and that if it is to be used as fever remedy, great caution is required on account of its marked effect on the heart.—*Brit. Med. Jour.*

Chronic Glycosuria.

IN a paper presented to the Academie de Medicine, WORMS who has a wide clinical experience of this disease, advises patients to determine each his own diet and take plenty of out-door exercise if they wish to ensure longevity. He examined the urine of 100 brain workers, who led sedentary lives and found considerable quantities of sugar in 7 of them; whereas among 607 artisans and laborers sugar was not found in one. After excluding the hepatic cases he classifies diabetics as:—(1) Those who have large proportions of sugar, but easily reducible. (2) Those whose sugar is not reducible; and (3) those in whom the sugar altogether ceases, but reappears after a long interval—sometimes as long as 12 months generally after some violent emotion, and this is particularly the case in gouty subjects —*Cin. Jour. of Med.*

SURGERY.

Transplantation of Skin, enclosing epithelial Pedicle from one part of the Body to another and from one Patient to another.

HAVING, some years ago, to operate on a woman for ptosis, Dr. C. BELL TAYLOR inadvertantly excised rather more than he wanted to of the upper lid; but finding it impracticable to transplant a piece of skin with pedicle from the immediate neighbourhood, he replaced the apparently dead eyelid which took kindly to its old quarters and the shrinkage due to its temporary demise (transplanted skin shrinks to nearly 0·2 of its original size) sufficed to restore the normal position of the lid. Since this he has frequently transplanted skin from one part of the body to another, and from one patient to another. On one occasion he cured extensive symblepharon by transplanting a large piece of skin on to the surface of the eyeball itself and in another case where the facial tissues were so completely destroyed by burn as to make it impossible to find healthy tissue in the neighbourhood of the orbit, he restored an eyelid by a piece of skin taken from the forearm. The points necessary to success are (1) clear away subcutaneous tissue, (2) *closely* approximate the edges, (3) apply pressure and (4) keep the flap warm.—*Lancet.*

Lumbar Nephropexy without Suturing.

SENN, who strongly objects to the practice of incising and detaching the fibrous capsule and thus permanently and seriously injuring the kidney, relies on extensive excision of the adipose capsule in the fixation of movable kidney and altogether dispensing with sutures, trusts exclusively to (1) extensive removal of the pararenal fat, (2) scarification of the fibrous capsule, (3) direct temporary support of the kidney by a strip of iodoform gauze, (4) plugging the wound with gauze, and (5) prolonged rest on the back with (6) localised compression of the front of the abdomen.—*Jour. Amer. Med. Assoc.*

Spontaneous Straightening of Rickety Curvatures of the Leg.

FROM a study of a large number of cases at the Tubingen Clinic, KAMPE concludes: (1) The greater number of all cases of rickety curvatures of the legs undergo spontaneous cure. Of the author's cases, all severe, seventy-five per cent. were cured, 15·8 per cent. improved, in only 9·7 per cent. was there no improvement of the deformity. (2) The process of spontaneous straightening lasts usually from two to four years. If the curvatures began in the first or second year of life the legs are quite straight by the fourth or fifth. (3) If the curvatures are unchanged by the sixth year, spontaneous cure does not take place at all. There are always cases of most severe general rhachitis. (4) The chief aim in treatment is to improve the general health so as to strengthen the muscles. In KAMPE'S experience, as soon as the disease is past the acute stage, being about on the legs is not detrimental, but, on the contrary, helps the cure. Orthopædic treatment by plaster-of-paris, splints, etc., is not necessary. Osteotomy is indicated only when the curvatures persist after the sixth year.—*Canad. Pract.*

Operative Surgery of Gastric Ulcer.

RENDLEMAN gives the indications for surgical interference in gastric ulcer: (1) In perforation it is absolutely necessary as early as possible before the perforation, and to wash out the abdomen. Since 1884 the mortality after operation has fallen to 53.94 per cent., and without operation the condition is almost necessarily fatal. (2) For stricture of the pylorus. In this condition it is found in cicatricial obstruction from swelling of the tissues round the ulcer, or from pyloric spasm from [illegible]. For the latter there are three possible operations: (*a*) Resection of the pylorus; (*b*) gastro-enterostomy; (*c*) pyloroplasty. Of these the first is the most dangerous, and has no advantages over the others, unless the ulcer can be excised with the pylorus. Pyloroplasty is not applicable if the ulcer extends to the pylorus, or where the pylorus is adherent, and its walls have lost their softness. When there is choice between the second and third methods, MIKULICZ prefers pyloroplasty. (3) Operation may be required for adhesions or abscesses in connection with the ulcer. These are rarely very hard to diagnose, but it must be remembered that in some cases of persistent pain exploratory laparotomy is justified. (4) For hæmatemesis. Since sudden death is the exception, and many cases recover with medical treatment, the propriety of operation is still doubtful. HARTMANN'S 12 cases gave 8 deaths and 4 recoveries. The author believes the chief point to be the quantity of blood lost. For violent hæmorrhage laparotomy has almost always failed. Sometimes the infiltration of the surrounding tissues has rendered excision of the ulcer or ligaturing the bleeding vessel impossible. Often the bleeding comes from a branch of the splenic artery, whose territory is very difficult to reach, and sometimes the ulcer has been too small to be found. For slighter hæmorrhages which become dangerous through repetition operation may be successful; usually pyloroplasty or more often gastro-enterostomy have been performed in such cases with a view to procuring rest of the stomach, and consequently of the ulcer and its healing. (5) This last consideration has led some to propose gastro-enterostomy for cases of uncomplicated gastric ulcer. The general death-rate for all cases of gastric ulcer is 25 to 30 per cent., for gastro-enterostomy only 16.2 per cent., and therefore the operation has less danger than the disease. Another advantage of not waiting for complications is that the patient is in better health. At any rate cases which do not improve with medical treatment in a reasonable time should be treated surgically.—*Brit. Med. Journ.*

A Story with a Moral.

DR. FREDERICK HOLMES WIGGIN said that the great mortality following operations for intestinal obstruction was due, in his opinion, to the delay in operating. The usual history was that the attending physician had purged the patient freely with salines, and had lost very valuable time before calling in a surgeon. He referred to a case in which the patient had refused operation and the friends had besought him to give morphine. He had given one dose, but, finding no amelioration of the symptoms, he had positively refused to continue its administration. Finally consent was obtained to an operation, and when it was performed, it was evident, from the beginning gangrene of the parts, that had he yielded to their entreaties and continued the morphine, death would have been the result. It should be remembered that occlusion of the large intestine might exist for ten days or two weeks without any marked symptoms, except vomiting. In chronic cases there was often a history of a blow or some injury which would aid one in locating the seat of the trouble. If there was a history of obstipation, and rectal examination and rectal enemata gave a negative result, there was reason for believing that the case was one of intestinal obstruction. The general practitioner often made the diagnosis of intestinal obstruction, but delayed sending for a surgeon until he had determined the particular cause of the obstruction.—*N. Y. Med. Jour.*

MR. GLADSTONE'S DEATH. THE PASSING OF A GREAT MAN.

SAYS *The Lancet* :—"We do not intend to give any detailed obituary notice of the great man who has just passed from among us. Our readers have before them the ample story of Mr. GLADSTONE'S grand career in all the daily papers and in most cases it will be the province of such papers to discuss political matters upon which we are unable as a medical journal to take a view. But at the same time we desire to register our feelings of profound admiration for the dead statesman's lofty ideals, unrivalled intellectual powers, and wonderfully sweet and buoyant temperament. In Mr. GLADSTONE a lowly trust in God was joined to the highest aspirations for the good of humanity, and the sense of the loss which the nation feels itself to have sustained by his death cannot be adequately expressed. Medicine, its science and practice, falls as a part of the social scheme beneath the domination of a real national leader, so that in common with the rest of the community we rejoice when our leader is a good man as well as a great one, and while rejoicing benefit. It is unnecessary to point to special acts or speeches that we may prove Mr. GLADSTONE to have been the friend of those who follow our calling, though to do so would be easy. Being the man that he was it was inevitable that he should sympathise with us and with all who work to help the weak. For Mr. GLADSTONE was exactly 'the man of mercy' whom the Son of SIRACH has described, as he was and is, also, one 'whose glory shall not be blotted out' but 'whose name liveth to all generations.'"

The President of the General Medical Council said a suggestion had been made to him that the Council should join other public bodies in recording their sense of the loss which had befallen the nation through the death of Mr. GLADSTONE. He therefore moved the following resolution which was carried unanimously by the Council in Session :—

"That this Council desires to place on record its sense of the grievous loss which has befallen the nation by the death of the Right Hon. W. E. GLADSTONE, whose interest in the profession of medicine was ever warm and sympathetic, and under whose administration the Medical Act of 1886 was passed into law. The Council further requests the President to transmit to the widow and family of the deceased statesman a suitable expression of the Council's heartfelt participation in the national sorrow."

ABSCESS OF THE LIVER.

THE two following cases of liver abscess treated by free incision are related by M. RICHELOT :—

The first case was that of a young man aged 22 years, who had returned from a two years' residence in Saigon and Tonkin, where he had suffered from dysentery. The disease had been diagnosed as pulmonary tuberculosis with localised empyema. M. LAFONCADE (of Bagonne, under whose treatment he came) diagnosed liver abscess following dysentery, and according to LANNELONGUE'S method resected the lower margin of thorax, which enabled him to freely incise the liver abscess. The patient died on the 32nd day.

In the second case, M. LAFONCADE opened the abscess by transpleural laparotomy, recovery followed without incident.

M. RICHELOT related a case of his own, in a man who had returned to France 10 years previously after having served in the Tonkin Campaign, in the intervening time he had only suffered from occasional attacks of fever, the liver extended to a considerable distance below the arch of the ribs, and in this situation laparotomy was performed and about 250 grammes of pus evacuated from a liver abscess. Three months later he incised a second abscess which presented below the xiphoid cartilage, and shortly afterwards a third abscess appearing, it was also opened. Complete cure followed. The pus from the third abscess was sterile, that from the other two was not tested.

A DEBT COLLECTOR ON THE SYMPTOMS OF PLAGUE.

A GENTLEMAN, who signs himself ALEX. J. AGABEG, Superintendent, Public Debt Office, Bank of Bombay, in a letter to the *Englishman* under the above heading, is kind enough to treat us to some very original views of his own as to the true nature and pathology of plague; the ideas will no doubt interest as well as afford considerable amusement to our readers. "This so-called plague," we are told, is nothing else but a most virulent attack of "malaria," and the bacillus which has been discovered is no other than the "bacillus malariæ" which has not been known in India before. It is something to be thankful for that the dreadful "bacillus malariæ" has not previously visited our shores, but whence all the malarial fevers with which we are so well acquainted!

"The microbe," we are informed, "appears to be a vegetable of a group Schisomycetæ, and of a family near Algæ, it is so small that it is difficult to imagine its size."

Mr. AGABEG appears to be an individual of the group meddlers, of a family near muddles, but his errors are so enormous that it is difficult to imagine their size.

Regarding symptoms he says :—"The skin only in very exceptional cases has shown black patches, and scarcely can you find the whole body blackened." The meaning of this charming sample of English "as she is writ" in Hindostan we leave to the discernment of our readers, while we wonder at finding it admitted to the columns of the *Englishman*.

PROFESSIONAL SECRETS.

THE *Medical Times and Hospital Gazette* says :—"The question of professional secrecy is one which perpetually recurs in very different forms. There can be no doubt of the absolute necessity for inviolable secrecy as to matters made known to a doctor by a patient in the course of consultation. One cannot, of course, severely blame a doctor who deviates from his plain duty in this respect owing to fear of threats by those who administer the law; but at the same time we must admire those who decline at all risks to betray confidence reposed in them. To do as some suggest ought to be done, namely to give information to the police of every crime (or what the law calls crime), which comes under medical notice professionally, would be as wrong in principle, as it would be ruinous in practice. There are, however, cases in which secrecy would be sure to endanger either the patient or others, and here the doctor must, of course, undertake the responsibility attached of necessity to the information acquired. If a patient betrays to a doctor plain symptoms of homicidal or suicidal tendencies, it is an obvious duty to take suitable steps to guard against consequences, and no blame can be attached to a doctor who finds it desirable to convey the information to those who ought to have it. Again, if a patient is dangerously infective, a doctor, in the event of the patient refusing to take proper precaution for the safety of others, might under some circumstances be justified in warning those exposed to risk. The exceptions, however, should be very few. The fixed rule is absolute secrecy!"

ANTIRABIC INOCULATIONS.

SAYS the *British Medical Journal* :—"The *Annales de l'institute Pasteur* contains a brief summary of the work for the year 1897. The number of persons bitten by rabid animals and treated at the Institute was 1,823, and of these 8 died. If 2 cases in which death occurred before treatment could take effect are excluded, the 6 deaths give a total mortality of 0·33 per cent. This cases are classified under three

[illegible] bitten by dogs proved by bacteriological experiments to have been rabid. 2. Cases bitten by animals certified to rabid by veterinary surgeons. 3. Cases in which the bites [illegible] only. The mortality in the first of these classes is always higher than in the other two. It never, however, exceeds 1 per cent., and during the year in question only reached 0·7 per cent. Bites on the face and head were most fatal, the hands and limbs coming next in order of danger. Of the fatal cases one died six months after treatment, most of the others at intervals of a few weeks only. It is interesting to note that in 3 of the fatal cases the rabid dogs which inflicted the wounds were known to have bitten other persons who have not subsequently developed any symptoms of rabies. One of these persons had undergone a course of treatment at the Institute, the other had not. Of the 1,921 persons treated in Paris 175 were foreigners; the countries contributing the greatest number being—England, 83; India, 33; and Switzerland, 33.

LAND AND FLOATING HOSPITALS AT RANGOON.

ARRANGEMENTS have been made by the Rangoon Municipality to procure a loan of a river flat from the Irrawaddy Flotilla Company. This flat will be properly fitted up to meet the requirements of a hospital, and will be anchored in the river. The lower deck of the flat is being lime-washed from stem to stern, while the upper one will be similarly treated. The top portion has been matted in and equipped with other necessary arrangements. Lying alongside this flat is another but smaller flat-bottomed boat, which will be utilised as a disinfecting apparatus. To answer this purpose it has been equipped at one end with a machine and large boiler for generating steam, which will escape through a number of pipes into three reservoirs specially fitted up for facilitating the work of disinfection. At the opposite end two cells have been built into which a pair of trollies will be run from the reservoirs with the infected linen, which will undergo a further process of disinfection under steam in an enclosed cell. The work of completion is being rapidly pushed.

It has been decided to erect a portion of the new General Hospital for Rangoon in order to provide sufficient accommodation for Europeans and paying patients, to alter the present hospital, to build an infectious diseases hospital for Europeans, and to convert the present infectious diseases wards into wards for females suffering from contagious diseases, at a total cost of four lakhs, excluding the cost of the site for the new buildings. The Provincial and Port revenues pay one-fifth, and the Rangoon Municipality four-fifths of the expenditure of three lakhs and fifty thousand on the contagious diseases hospital under consideration, but the Municipal Committee thinks that if the present vaccination law is amended by making adult vaccination and re-vaccination compulsory, this expenditure will be necessary.

The steamer *Talifu* is being fitted up in the Rangoon river as a hospital, while on the bank will be a segregation camp. The steamer will serve as a hospital for the whole town. A hospital will also be built at Thetnbyu, where the present infectious diseases hospital is. This will be for the Eastern half of the town, and, if necessary, there will be a segregation camp on the newly-reclaimed ground. A meeting of the medical men in town will be held shortly to discuss matters. Two trained nurses have been sent for from England.

ENTERIC FEVER AMONG THE TROOPS IN INDIA.

SAYS *The Lancet*:—"General BOOTHBY asked the Secretary of State for India whether the Government of India had arrived at any conclusion regarding the causes of the great increase in enteric fever among European troops in India; whether the investigations [illegible] made were concluded; and [illegible] adopt any special measures to [illegible] Lord GEORGE HAMILTON [illegible] that a definite conclusion has been arrived at as to the causes of the [illegible] enteric fever among British troops in India, and the investigations on this subject are still proceeding, additional medical officers having been specially detailed for this duty. Generally the measures taken to check the spread of the disease are the improvement of the water-supply, the provision of pure milk and butter, and improved sanitation of troop entertainments and barracks. One cantonment, Dagshai, within there have been serious outbreaks of enteric fever, has been completely evacuated for a year, pending the installation of an improved water-supply and the disinfection of the barracks and their vicinity."

SURGEON-CAPTAIN C. DALTON, A. M. S.

ANOTHER case of distinguished heroism, says the *British Medical Journal*, is thus alluded to in the *Army and Navy Gazette* of 7th May —

"When Lieutenant CRAIG-BROWN, 1st Battalion, West India Regiment, was severely wounded in the fighting recently in Lagos, Surgeon-Captain C. DALTON, A. M. S., dressed his wounds on the spot where he was shot down midst a hail of fire. A carrier, who was by his side at the time, was shot dead. Another thrilling act was performed by the same officer together with Sergeant-Major M'KILLOP. It was found, when the company got into safe quarters, that a wounded West India native had been left behind. The man was badly wounded. Captain DALTON and M'KILLOP at once went back, a distance of 500 yards, into the enemy's quarters under fire, and brought the poor fellow back. Unfortunately the man, whose name was BARRETT, died. The act was none the less one of great gallantry, and, as a correspondent puts it, 'at time when some would try to make out that the army doctor is simply a civilian hanger-on to the army, it is right that all honorable men among combatant officers should rise in revolt against such a libel and injustice, which can in the long run only produce its proper result.'"

THE GENERAL HOSPITAL AND DR. PILGRIM.

SURGEON-CAPTAIN HERBERT WILSON PILGRIM, I. M. S., is M.R.C.S. Eng., L.S.A. Lond. (1884), and M.B. Lond., (1885). He hails from the West Indies, and was medically educated in the University of Edinburgh and in University College, London. He joined the Indian Medical Service in 1886, and has therefore 12 years' service. He was appointed junior Resident Surgeon of the Presidency General Hospital in June 1890, and was promoted to First Resident Surgeon on the 1st of April 1895 on a salary of Rs. 900 per mensem. His present position, as Superintendent of the hospital, just doubles his salary. There is not another officer in the Indian Medical Service of his rank who is in receipt of a salary of Rs. 1,800 per mensem. Dr. PILGRIM has had 8 years' practical experience of the working of the Calcutta General Hospital, and if merit and special experience are to be accorded their just reward, Dr. PILGRIM certainly deserves his promotion. There can be no question of a doubt however that from a service point of view, the selection of a junior surgeon for so important an administrative office, will evoke the severest criticism, as in making such a selection the Government has over-ridden the established rules and regulations of the service.

TREATMENT OF TYPHUS IN THE ARMY BY INTRAMUSCULAR INJECTIONS OF MERCURY.

SURGEON-CAPTAIN F. S. W. PORTER, I. M. S., Peshawar, India, writes to the *British Medical Journal*:—"I think

[illegible] is due to [illegible] LAMBKIN for bringing [illegible] of the treatment of syphilis to the notice of [illegible]. It has been adopted by very many medical officers in this country, and with the greatest benefit to the soldier and the State. The reasons why it is not more extensively used are (1) the difficulty of procuring a suitable syringe; (2) manufacture of the cream with impure mercury; (3) too large a dose of the cream. I have not found the vulcanite syringe answer in this country; the barrel works loose and the needles separate from the vulcanite. I now use an ordinary syringe made by WEISS in which the needles screw on. I make the cream from ASH's chemically pure dental mercury, and never inject more than 5 minims at a time. With the man standing, I insert the needle high up near the crest of the ilium, and push it downwards and forwards. I have given about 900 injections and have never had an abscess. The men are able to perform all their duties and even to ride.

A CHINESE CHRISTIAN PHYSICIAN IN LONDON.

THE *Friend of China* says :—"An interesting incident of the year's work has been the visit of Dr. TSAO YUNG-KWEI, physician to the Special Envoy who represented the Emperor of China at the Diamond Jubilee of our beloved Queen. Dr. TSAO, who is on the staff of the Methodist Episcopal Missionary College in Pekin, was entertained by the Society at an informal afternoon gathering in Westminster Town Hall, when an address of welcome was presented to him. He feelingly acknowledged the efforts made by British Christians to put an end to this great curse that afflicts his country. The address was afterwards engrossed and illuminated and forwarded to Dr. TSAO, at Pekin, and we have received from him a cordial acknowledgment, stating that he is bringing the matter before the Christian churches in Pekin. Amongst those present at the reception was Dr. WALLACE, of Calcutta, Editor of the *Indian Medical Record*, which has subjected the Report of Sir WILLIAM ROBERT, as Medical member of the Royal Commission, to the incisive criticism referred to in our last report. Dr. WALLACE confirmed the testimony of his Chinese *confrère* as to the evil effects of the opium habit."

ANGLO-INDIAN CLAIMS AND ASPIRATIONS.

SURGEON-COLONEL KENNETH MACLEOD, M.D., F.R.C.S., writes :—"I observe from Indian papers, recently received, that the agitation for obtaining encouragement and recognition by the State for members of the Anglo-Indian or domiciled British community in India is being actively carried on. Nothing but good can come of representing the numbers, the importance, the services, the capacities, the loyalty of that community in this country, (England) and for the purposes of such representation strong and wide associations are needful. I see that a point has been made of the disabilities of the communities, as well as of their merits and capabilities; and accusations have been cast on the Government of India that these disabilities are the creation, not of circumstances but of arbitrary administrative initiative, actuated by race prejudice and unfounded disparagement of a people peculiarly placed, who have not been able sufficiently to assert themselves under the conditions of their existence in India. I am inclined to think that this point is overdone and that the circumstances are more to blame for the disabilities than the authorities."

PRESENTATION TO SIR WILLIAM STOKES, F.R.C.S.I.

AN interesting ceremony, says the *British Medical Journal*, took place in the Royal College of Surgeons, Dublin, on Saturday, 7th May, when an address and some valuable plate were presented to Sir WILLIAM STOKES on the completion of his twenty-fifth year of office as Professor of Surgery in the School. The subscribers comprised many old and present pupils, [illegible] including Lord LISTER, Sir JAMES PAGET, and Professor OGSTON, of Aberdeen, who was able to be present. The chair was occupied by Sir WILLIAM THOMSON, President of the College, who made the presentation, and speeches were delivered by Sir CHARLES CAMERON, Sir GEORGE DUFFEY, and Mr. MYLES. Sir WILLIAM STOKES made a most effective reply, marked as it was by great eloquence; and he made touching allusion to the gift to Lady STOKES which accompanied the presentation. In the evening the Professors entertained their colleague at dinner. Sir CHARLES CAMERON was in the chair, and there were also present Sir WM. THOMSON, F.R.C.S., Sir GEORGE DUFFEY, Professor OGSTON, Dr. JAMES LITTLE, Professor FRASER, Mr. MYLES, Dr. J. W. MOORE, Mr. HEUSTON, and many others.

THE TITLE OF "DR."

THE *British Medical Journal* says :—"At Newcastle, THOMAS PAINE HETHERINGTON, styling himself "Dr," but not on the *Medical Register* or holding any registrable qualification, was charged before the magistrates under the 40th Section of the Medical Act, 1858, with wilfully and falsely pretending to be a doctor of medicine. It was stated that the defendant was a dentist and a doctor of medicine of the United States. The case was however practically undefended, no evidence being called on behalf of the defendant, and who in the absence of proof that he held any medical qualification, was fined £20 and costs. The prosecution was instituted by the Medical Defence Union.

"At the Newcastle County Court, recently, before Judge GREENWELL and a jury, THOMAS PAINE HETHERINGTON (who, as above stated, was fined £20 at the police-court for illegally using the title of 'Dr') was sued by the Society of Apothecaries for having practised without having a medical diploma. The jury found for the Society, and judgment was given against the defendant for the full amount claimed, £20 and costs."

THE "JOURNAL OF TROPICAL MEDICINE."

SAYS *The Lancet* :—"It is proposed, if enough support can be obtained for the scheme, to publish in London a monthly journal dealing with the diseases of warm climates, to be devoted to the publication of papers on tropical diseases and to the discussion of subjects scientific and practical affecting the interests of medical men in tropical and subtropical climates. The annual subscription, including postage, is to be 17*s*. We wish the promoters success in their new venture. They deserve it, for there is no country which has such a large interest in the tropics and the diseases common to them as our own. Any communication addressed to the Editors, *Journal of Tropical Medicine*, Messrs. JOHN BALE, SONS and DANIELSSON, 85 to 89, Great Titchfield-street, London, W., will receive attention. The editors are Mr. JAMES CANTLIE and Dr. W. J. SIMPSON."

CLIMATE AND MORALS.

A CURIOUS investigation has been undertaken by the officers of the weather bureau in the United States. Colonel WILLIS MOORE originated the investigation, believing that there is a close connection between the condition of the atmosphere and the physical and moral welfare of the people. The results of these investigations are as follows :—Taking in the whole country during January, February, and March, there were in round numbers 1,200 suicides reported in the United States; while in July, August, and September there were 1,600. In the same period there were 1,700 murders in the cold term, as compared with [illegible] in the three hot months. There were 50 persons hanged or lynched in the three cold months, and 119 hanged or lynched in the three hot

months. The investigation is said to have been instituted with the idea of issuing in the near future warning of the approaches of crime waves.

THE PLAGUE IN CALCUTTA. NO NEW DISEASE.

Cases of malignant fever of a distinctly fatal type and officially declared to be "sporadic plague," continue to be furnished out of the dirtiest and most unhealthy plague spots in the city. From the date of the official announcement of this disorder as plague, 196 suspected cases have been reported and 81 have turned out fatally up to the 13th instant. There is considerable doubt as to all of these cases being of one and the same kind, or even one of the three different types of "plague," so that, as a matter of fact, while dysentery, cholera and famine-stricken people *in articulo mortis*, have been pronounced as cases of "sporadic plague," there is infinite difficulty incorrectly stating, as a matter of indisputable truth, how many of these cases are real and how many are spurious. For all this, however, the city is condemned as a *plague infected* locality, and its commercial prosperity is doomed. We say doomed, because house-to-house visitation, if commenced fifty years ago, would have produced similar results in the discovery of certain types of malignant fever; and if the same process is continued for the next half century, there will be no dearth of discovery of similar cases, for as long as such festering plague spots as are at present to be found, exist all over Calcutta, so long will our unfortunate experiences of "sporadic plague" be monotonously unchanging. These are stern and solemn facts, and they can be borne out by the experience of the oldest living medical practitioners of the city and by the writing of still older though long departed ones.

INDIAN MEDICAL REGISTRATION IN PARLIAMENT.

It must be extremely gratifying to the Indian Medical Association to find that its laudable efforts to bring about the enactment of a Medical Registration Act for India are rapidly moving towards success. The fact that this important measure was considered by the General Medical Council of Great Britain at its last session, though with no very definite results, is still satisfactory. That its further efforts have resulted in a question being asked in Parliament, is another step in advance, and ought to encourage India and the local profession with the hope that the goal is approaching and victory is nigh. We quote the following paragraph from the *Lancet* of the 28th May :—

"Sir WALTER FOSTER, M.D., M.P., asked the Secretary of State for India on Tuesday, the 17th May 1892, whether he was aware that at present uneducated and unqualified persons have as much right to practise medicine in India as fully qualified practitioners; and whether in view of the danger to which the Indian people are thereby exposed, he would consider the advisability of instituting a system of registration for medical practitioners similar to that which exists in Great Britain and Ireland. Lord GEORGE HAMILTON replied: The answer to the first branch of the question is in the affirmative and that to the second branch in the negative. It would be, in my judgment, impossible in the present condition of India to prevent the people of that country from resorting to native practitioners, even though they may be regarded by Europeans as not fully educated or qualified for the work they undertake."

HAVE THE PUBLIC FAITH IN OFFICIAL COMMITTEES?

In answer to the above question, Reuter telegraphs :—"The Governor of the Bank of England, in a letter to Lord GEORGE HAMILTON, says that the majority of the Indian Currency Committee consists of officials, and as now constituted, the Committee fails to command the confidence of the city."

In spite of the fact that under the new "Sedition Act," anything, "from winking one's eye to damning the Viceroy" may be construed into sedition, we desire to say in answer to the question that heads this comment, *the public have no faith* in the Bengal Plague Commission, the majority of whom are officials, who, as a matter of fact, are resting their heels in Darjeeling, and whose toil and thought in connection with plague matters in Calcutta, may be summed up in a little word of three letters—NIL. Where is the Bengal Plague Commission? Echo answers where?

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Says the *British Medical Journal* :—"The election of President, Vice-President, and Council will take place on the first Monday of June. Mr. R. L. SWAN, Surgeon to Steevens's Hospital, will succeed to the presidential chair, which has now been occupied for two years by Sir WILLIAM THOMSON. For the vice-presidency, which becomes vacant by Mr. SWAN's promotion, there are two candidates, Dr. C. B. BALL, Regius Professor of Surgery, Trinity College, and Mr. THOMAS MYLES, Surgeon to the Richmond Hospital. It is believed that the contest will be very close. For the Council Mr. H. G. CROLY, Mr. M'CAUSLAND, Mr. ROBERT H. WOODS (who retires from the secretaryship to Council), Dr. CRANNY, Mr. CHANCE, and Mr. J. HARRISON SCOTT will be candidates."

WHERE LIFE IS LONGEST.

Of all the countries in the world, says the *Philadelphia Medical Journal*, it is Servia which contains the most centenarians. In this little country, which has less than 1,800,000, inhabitants, there are actually 575 persons whose age exceeds 100 years. Ireland comes next in the list with 578, but then her population is very much larger than that of Servia. Spain has 401 out of a population of 17,000,000, and France counts 218 among her 38,000,000 inhabitants. England, Scotland and Wales can only muster 192 between them, and Germany with her enormous population of 55,000,000, has but 78. Norway has 23 out of 2,500,000 inhabitants and Sweden a population of nearly 5,000,000, and only 20 centenarians. Denmark has but 2, and in little Switzerland there is not a single person whose years number five score.

CHLOROFORM SYNCOPE RESTORED BY ARTIFICIAL RESPIRATION AND NITRITE OF AMYL.

In the *Lancet* of 19th September 1891, page 665, EDWARD RICE, M.D. London, of Oxford, reports a case of chloroform syncope restored by nitrite amyl and artificial respiration. The subject was a woman, 40 years old, and was chloroformed through a Junker's inhaler, for the purpose of having a growth excised. Three drachms of chloroform were inhaled and syncope ensued. Dr. RICE insists that the pulse failed *first* and then the respiration. Immediately artificial respiration was resorted to, and a capsule containing three minims of nitrite of amyl was snapped and applied to her nostrils. An enema of brandy and water was also given. These means restored her. The patient had taken sulfonal freely the previous night.

BEWARE OF TABLOIDS. DEATH BY MISTAKING ONE FOR ANOTHER.

Through an error on the part of a chemist in Melbourne, who substituted sulphate of atropine for muriate of morphine, Dr. S. I. Williams met with a tragic death. He was on his way to visit a lady patient, and stopped at a chemist's to obtain some morphine solution. The chemist made a solution with atropine instead, and the doctor, who was in the habit of taking morphine largely, gave himself an injection before entering the house. After administering a dose to the patient, he gave himself a second injection and immediately afterwards became ill, then unconscious, and after lingering a while sank and died. The patient also exhibited symptoms of poisoning, but recovered.

THE McCONNELL STUDENTS' MEMORIAL.

The handing ceremony of the "McCONNELL Memorial" tablet erected by the students of the Calcutta Medical College to the memory of the late Brigade-Surgeon Lieutenant-Colonel J. F. P. McCONNELL, who was for many years connected with the College as a Professor, was performed on Monday, 18th June 1898, by Surgeon-Lieutenant-Colonel BOMFORD, Principal of the College, in the main hall of the new building known as Chooney Lall Seal's Dispensary, situated on the grounds south-east of the College. There was a large attendance of the students, and of members of the medical profession. On Dr. BOMFORD being voted to the chair, the Honorary Secretary of the McCONNELL Memorial Committee read a short report of the work done by the Committee for the purpose of perpetuating the memorial of the late Professor, to whom it was decided to erect a brass memorial tablet. The Committee was indebted to Dr. BOMFORD for his valuable advice and assistance, and for according the site of the tablet in the Chooney Lall Seal's Dispensary. The Committee also tendered their thanks to Dr. R. BIRD, Dr. J. F. EVANS, Dr. KEDAR NATH DASS, and others, who have helped toward the erection of the tablet. In conclusion, the Secretary requested Dr. BOMFORD to unveil the tablet which is inscribed as follows:—"To the memory of Brigade-Surgeon-Lieutenant-Colonel JAMES FREDERICK PARRY McCONNELL, M.D., F.R.C.P., I.M.S. for many years on the staff of this hospital, first as Resident Physician and Professor of Pathology and afterwards as second physician and Professor of Materia Medica. Born 13th January 1848, died 24th, August 1896 Erected by the students of the Medical College in token of their esteem and regard for one whom they revered as a teacher and loved as a friend." Before the unveiling ceremony was performed, Mr. WOOD read a letter from Mrs McCONNELL, who expressed her grateful acknowledgment of the kindly feeling which prompted the students to raise a permanent memorial to her husband's memory. Dr. BOMFORD, after unveiling the tablet, which occupies a prominent position in the main hall of the new building, addressed the assembly He paid a generous tribute to the high attainments and medical skill of Dr. McCONNELL. He had won the esteem of both his patients and the students of the College, in whose education and welfare he always took a deep interest. With the customary vote of thanks to the chair the proceedings terminated.

PLAGUE IN BOMBAY AND IN THE PUNJAB.

THE plague figures for the past three days shows that on Saturday there was 5 new cases and 2 deaths; the mortality from all causes being 79, being the same figures as those on the corresponding day last year. Sunday's returns show 13 new cases and 1 death. There were 68 deaths from all causes. On the corresponding date last year there were 7 seizures, with 4 deaths, and 91 deaths from all causes. To-day there were 2 fresh attacks and 4 deaths. There were 60 deaths from all causes. On the same day in 1897 there was 1 seizure. The plague deaths numbered 4, while those from all causes were 68.

The returns for the 12th instant for Karachi show 16 cases and 13 deaths; the totals to date being 2,849 cases and 2,237 deaths.

The plague returns from the infected area continue to be satisfactory and are re-assuring in both the Jullundur and Hoshiarpore districts of the Punjab, The returns of the 7th and 8th instant show no fresh cases and no deaths. Four villages are declared free of plague.

TO DISGUISE BITTER TASTING MEDICINE.

THE *N. Y. Medical Record* says:—"A plant grows in Assam, the botanical name of which is Gymnema sylvestre, which has the peculiar property, when chewed, of temporarily neutralising the sense of taste as regards sweet and bitter things, while that for sour and saline substances remains unaltered. The Hindus claim that the plant is an antidote to snake-bite. However that may be, it is believed that the plant might be advantageously introduced in our pharmacopœia as a means of disguising the bitterness of quinine and other disagreeable medicines."

ANOTHER ANGLO-INDIAN SUCCESS.

AMONG the passengers who embarked from Madras the other day on board the s. s. *Arcos* for England, was Mr. W. C. Bowden, a son of Mr. JOHN BOWDEN, the Presidency Pleader, and a pupil of the local Medical College. Mr. Bowden is an Anglo-Indian, and has obtained the 1st of the successful candidates at the last August M. B. & S. Examination; won the medal for Midwifery, the Pilcher Memorial Prize and the Johnston Gold Medal His object in going to England is to compete for the Indian Medical Service.

THE I. M. S. AND THE NEW MEDICAL REFORM BILL.

NOTHING officially has yet reached India regarding the manner in which the Indian Medical Service will be affected by the re-organisation of the Army Medical Staff. Presumably, says the *Pioneer*, the Secretary of State will send out a despatch on the subject shortly. It is not known when the new Warrant will be issued, but in the House of Commons a fortnight ago, Mr. Powell Williams stated that the delay was in regard to the settlement of "some minor points which required reference to India."

UNQUALIFIED MIDWIVES

THE opinion of Mrs. Garrett Anderson, who may be supposed to represent the best opinion of her own sex, and who writes with full knowledge of the fact, that if all women are to have skilled attention, the majority must now and always be attended by men, strongly objects to the measure, and fully recognises the danger of labelling a whole host of unqualified women, and a handful of very indirectly qualified ones with any title whatever implying a Government guarantee.

THE ACTING PRINCIPAL OF THE CALCUTTA MEDICAL COLLEGE.

SURGEON MAJOR G F. A. HARRIS, L.R.C.P. Lond, (1875), M.R.C.S. Eng. (1877), who has been appointed to act as Principal of the Medical College Hospital while Dr. Bomford is away on furlough, has hosts of friends. He was a great favorite in Simla society some eight years ago, when he was Civil Surgeon there. In musical circles Dr. Harris has proved quite an acquisition, and his delightful performances on the violin are pleasurable remembrances of many enjoyable evenings on the hills. But he is a thoroughly good practical physician as well as a trained medical administrator

SHORT ITEMS.

A heavy drinker, who had suffered for years with symptoms of gastric atony, frequently vomitted, and on several occasions found worms in the ejected material. These proved to be larvæ of some species of fly. Bachmann prescribed an infusion of Persian insect-powder, with the result of finding in the stools masses of dead and partially digested larvæ. The patient had no further symptoms.

The 1st January 1900 has been fixed for the awarding of the Samuel D. Gross prize of $100 for the best original essay founded upon original investigation on some subject in surgical pathology or surgical practice. Only American citizens may compete, and the essay must not exceed 150 printed pages, octavo size. Further particulars may be obtained from D. J. Ewing Mears, 1429 Walnut Street, Philadelphia. Pa. U. S. America.

An exchange reports that in an examination that was made of some "electric belts" sold by a street fakir, it was found that beneath a strip of gauze was a layer of dry mustard When the wearer perspired a little, the mustard was moistened and set up a burning sensation, and the deluded victim believed a current of electricity was passing through him.

The half-yearly examination for the Fellowship of the Royal Colleges of Surgeons in Ireland came to a conclusion by a conference on 21st May The number of candidates was unusually large and included a lady graduate in medicine of the University of Calcutta. Miss Cohen passed and was entered on the roll as a Fellow of the College, she being the third lady who has received such honor.

Premature burial, it is reported, will claim a large share of attention in the medical section of the National Exposition which will be held at Turin, in Italy, this year. The object in view is to induce all countries to make laws requiring corpses to be kept for a fixed period before cremation or burial.

Austrian pharmacists ought to make a good thing of it since the people are many and the dispensaries few. Thus while Vienna has a population of 1,674,320, it boasts of 105 pharmacies or 1 for every 16,950 inhabitants. Karolinenthal with her 21,586 souls has but one pharmacy and the proportion of pharmacies to inhabitants is as 1 : 10,561 in Budweis,

Any person who spits in a street car or public building under Government control in the District of Columbia is liable to a fine of $10. California carries things a bit further and the other day sentenced a millionaire to 24 hours' imprisonment in the San Francisco Jail, for spitting where he shouldn't.

In commemoration of the Queen's Diamond Jubilee, the American community in England has presented £1,000 to each of the five leading hospitals in London for the "endowment of a bed in perpetuity" on condition that Americans will be given the preference, though the beds may be used by any one else.

The Mysore Government have put an end to the exclusive privilege of distilling sandalwood oil in that State by rejecting the application of a Coonbor distiller, Mr. H. S. Lee, who applied for the monopoly for a period of ten years The monopoly granted to Mr. F. P. Hay, of Hunsur, some years ago, was cancelled in 1896.

A warrant has been issued for the arrest of Pilot Simmonds, of the Rangoon Service, on a charge of defaming Surgeon-Lieutenant-Colonel Thomas, Civil Surgeon and Port Health Officer of Rangoon. The accused, it is alleged, cast reflections upon the manner in which the inspection of female passengers from Calcutta was conducted.

A New York doctor sued a lady patient to recover $60 for professional services She opposed his claim as exorbitant and has raised a counter-claim of $100 for "time lost" as she alleges that the majority of the doctor's visits were more of a social than of professional nature.

The will, with two codicils, of Sir Richard Quain, Bart, MD, FRCP, &c, who died on 13th March, has been proved by his brother, Mr F Quain, of Mincing Lane. The testator's gross estate is sworn at £118,121 13*s.* 2*d.*, the net personalty being £116,820

Sir William Thomson, President of the Royal College of Surgeons in Ireland, was entertained at dinner by the Vice-President and Council on Saturday, 14th May, in the Shelbourne Hotel The chair was occupied by Dr. R. L. Swan, the Vice-President.

In case of delirium tremens Crothers uses in the early period, free bathing and catharsis without narcotics. When exhaustion and sleep come on, the latter is encouraged and strychnin nitrate is given as a stimulant. Physical restraint should not be used, unless absolutely necessary.

Ribbert calls attention to the parasitic nature of tumors. The individual cells appear to have all the qualities of parasites, growing independently in the host, excepting that they prey upon it for nourishment without regard to the conditions necessary for its well-being.

I have not failed once for many years, by putting a blister over the fourth and fifth dorsal vertebræ, to put an end at once to sickness of pregnancy during the whole remaining period of gestation, no matter at what stage of the case I was consulted." So says Professor Parvin.

The Calcutta Homœopathic Medical School has just passed twenty-one students as Licentiates, 5 in the First and 16 in the Second Division, among whom one comes from the Punjab. This School of Medicine will be opened on the 22nd withan introductory address. This is another Indian Diploma Mill not under State control.

Mr. Charles Stanmore Tomes, F.R.C.S., M.B., L.R.C.P., L.D.S., has been nominated a Crown Member of the General Council of Medical Education and Registration of the United Kingdom in the vacancy created by the death of the late President, Sir Richard Quain.

The Colonial Office has received a telegram reporting that during the week ending 21st May there were 112 cases of plague in Hong-Kong and 107 deaths resulting from the plague. These figures show some decrease in the ravages of the disease.

The Ohio State Legislature are trying to pass a "bill" for the castration of any man who is convicted of criminal assault on a female and particularly upon any girl under fourteen years of age.

With the waning of the plague in Bombay, the Plague Committee there has been abolished and the Municipality is responsible for the sanitation of the city and affairs generally connected with the Health Department.

Surgeon-Major G. F. Harris, Civil Surgeon of Nagpur, succeeds Surgeon-Lieutenant-Colonel G Bomford, who takes one year's furlough, as Principal of the Medical College, Calcutta.

Cardinal Gibbons, Bishop Paret and several prominent citizens of Baltimore have started an antivivisection crusade, which is particularly directed against the medical school of Johns Hopkins University

Auzona has at last adopted a medical examining board, while veterinary surgeons are not permitted to run dry stores in Missouri unless they have qualified and registered as pharmacists.

He was a very able linguist and one day a friend said to him "They tell me professor that you have mastered all of the modern tongues "Yes," replied he, "all but two my wifes and her mothers"

"*Know* syphilis in all its manifestations and relations," says Dr. W. Osler of Philadelphia, "and what remains to be learned will not stretch the pia mater of a megalocephalic senior student."

There is every probability of Surgeon Lieutenant-Colonel Franklin succeeding Surgeon-Lieutenant-Colonel Raye as Inspector-General of Civil Hospitals, Punjab, when the latter proceeds home on furlough.

In septic conditions the patient is often very uncomfortable by reason of dryness of the tongue. A bit of ordinary chewing-gum will usually start the oral secretions and in a very short time give relief.

The Madras Government has sanctioned an outlay of Rs. 1,70,000 for the construction of quarters near the Memorial Hall for the accommodation of the Apothecaries attached to the Madras General Hospital.

Surgeon-Colonel K. MacLeod, Professor of Military Medicine, Army Medical School, Netley, was presented to Her Majesty on the occasion of the Queen's recent visit to Netley Hospital.

The Council of the British Medical Association have just completed the purchase of the freehold site upon which are situated their premises at the corner of Agar Street and the Strand. The purchase-price was £79,000.

Special leave for six months has been granted to Surgeon-Lieutenant-Colonel G. Ranking, M.D., Secretary, Board of Examiners, with effect from 1st July next.

Surgeon-Major D. G Crawford, Civil Surgeon of Monghyr, has been appointed to succeed Surgeon-Captain Pilgrim as officiating Civil Surgeon, 24-Pargánás.

Surgeon Lieutenant-Colonel C. J. H Warden, I. M S., Medical Storekeeper to Government, Bengal Command, is granted two years' furlough.

Surgeon Captain B. B Grayfoot, I. M. S., officiates as Medical Storekeeper, Bombay Command, *vice* Surgeon-Lieutenant-Colonel J. Parker, on leave

Dr. Gustmann, of Frankfort, has published a monograph showing that no less than 80,000 school-children in the German Empire suffer from stuttering.

Professor von Esmarsch, who is over 76 years old, has announced his intention of resigning the chair of surgery which he has held at the University of Kiel since 1857.

Dr T. C. Hayes has been elected Professor of Obstetric Medicine and Diseases of Women and Children, and Dr John Phillips, Lecturer in Practical Obstetrics in King's College.

The Lord Mayor's dinner in support of the London Hospital last week resulted in the collection of £75,000, with annual donations of over £4,000

Professor Michael Foster will preside over the meetings of Council of the British Association to be held next year at Dover.

Brigade-Surgeon Lieutenant-Colonel W Flood Murray, Civil Surgeon of Shahabad, has been allowed privilege leave for ninety days, from the 1st instant.

Surgeon-Major J Grainger, on return from military duty, has been appointed Civil Surgeon of Champarun, during the absence, on deputation, of Surgeon-Major R R H Whitwell

Danner records a case of external feminine pseudo hermaphroditism, the patients being 33 years old and of Italian descent. After marriage she became twice pregnant

Surgeon-Lieutenant-Colonel W. Coates, M D, Civil Surgeon of Lahore, proceeds on six months' leave, and is to be succeeded by Surgeon-Major J A. Cunningham from Multan.

A very red tongue indicates the need of acids in the system. Five drops of *dilute* nitro-hydrochloric acid in water fills the want satisfactorily.

Brief Pointers.—Whipped raw eggs possess great nutritive value, and are very easily digested.

Assistant Surgeon P. S Blaker, of Calcutta, has successfully passed the M.R.C.S. England.

Mr. A. R. Khan has successfully passed the first professional examination of the University of Edinburgh.

Brigade-Surgeon-Lieutenant-Colonel W. McConaghy, Bombay, officiates on the Administrative Staff of the Army.

In future, physicians practising in any part of the State of Texas must pay an "occupation" tax.

On return from military duty, Surgeon-Captain E. Herald Brown, M.D., has been re-appointed Civil Surgeon of Purneah.

DEPARTED INDIAN WORTHIES.

DEPUTY-SURGEON-GENERAL S. B. PARTRIDGE, F.R.C.S., C.I.E., Q.H.S.

Bengal Medical Service (Retired.)

On 11th May, in the presence of relatives, brother officers, and friends, the mortal remains of SAMUEL BOWEN PARTRIDGE were laid to rest in the cemetery at Norwood.

This distinguished medical officer was born at Cardiff in 1828 and was educated at King's College, London, where he had a most brilliant career, during which he gained many prizes. After passing the Royal College of Surgeons he entered the East India Company's service on the Bengal establishment as an Assistant Surgeon in the year 1852. Shortly after his arrival in India he was ordered to Burmah to join the Bengal Field Force, and after performing excellent service in a variety of ways, on his return to Bengal he served as Civil Surgeon and also with a cavalry regiment. On the outbreak of the mutiny in 1857 he served with a cavalry regiment in Oudh, and when the siege of the Residency of Lucknow commenced he served throughout the whole of that eventful period in Dr FAYRER'S house in the garrison, where his energy, activity, and professional knowledge were of the greatest benefit. He was present with the expedition under Colonel BUCKMASTER, in which several officers were killed, and he also accompanied the ill-fated expedition to Chinhut, where he had a narrow escape of losing his life. Subsequently he distinguished himself as Field Surgeon in the operations under the Commander-in-Chief at the recapture of Lucknow. For these services he received the brevet promotion of Surgeon, was allowed to count a year's service, and received the thanks of Government in general orders.

The state of his health after all these exceptional services rendered it necessary for him to return to England. After a short stay, during which he became a Fellow of the Royal College of Surgeons, he resumed his duties in India, and was then appointed to the Medical College of Calcutta, in which he had on a former occasion officiated for a short time, as Professor of Anatomy and Surgeon of the Medical College Hospital. He was also an Examiner in the University of Calcutta, a Member of the Senate, and for a short time President of the Medical Faculty of the University. Subsequently, on the retirement of Dr FAYRER, he succeeded to his appointment as First Surgeon and Professor of Surgery in the Medical College Hospital, which appointment he continued to hold with the greatest distinction. In addition he had an extensive practice in Calcutta until 1880, when he retired from the service.

After his return to England Deputy Surgeon-General PARTRIDGE was appointed member of the India Medical Board at the India Office, where he rendered most valuable service, until loss of sight made his resignation of that appointment necessary, to the deep regret of his colleagues and friends

The news of his death will be received in India, as it has been in this country, with the greatest sorrow. He was held in the highest esteem by everyone who knew him; no man was ever more deservedly loved and respected than he was. His intellectual powers were great, and he was as much characterised by the breadth as by the accuracy of his knowledge; most laborious in his studies, most persevering in pursuing to the end any object which he had undertaken, with the profoundest mathematical problem as with the simplest piece of mechanics he was equally at home. As an anatomist he was unrivalled in the clearness of his demonstrations; as a surgeon he was remarkable not only for his skill as an operator but for his great powers of diagnosis, nor

remarkable for his capacity for dealing with disease in its tropical and other forms, whilst his firm, gentle, and efficient method of treatment inspired all who came under his care with confidence and affection. Notwithstanding his great attainments and his remarkable intellectual power, he was as humble as a child. The simplicity of his character was not less marked than its strength. He was naturally beloved by all his brother officers, associates, and pupils, and in fact by everyone who knew him. Whilst so gentle and tender in every way, a look was not firmer than he where firmness was required. Not even BAYARD himself, or OUTRAM (with whom he was justly compared) better deserved the title of "Chevalier sans peur et sans reproche."

On Deputy Surgeon-General PANTHAKER'S retirement from the India Office the Government signified their approval of his services by creating him a Companion of the Indian Empire. He had previously been made an Honorary Surgeon to the Queen, and had also received a medal and clasp for Burmah, and a medal and clasp for the seige and for the recapture of Lucknow.

ALFRED JOHN WALL, M.D. LOND., F.R.C.S.
Indian Medical Service (Retired.)

DR. WALL, whose death was announced a few days ago, was the son of a medical man who had a large practice in the West End of London. He was born in 1847, and after receiving his preliminary education at Epsom College, matriculated at the University of London in 1865; he then entered St. Mary's Hospital, where he was known as a hard worker and won a number of prizes. In 1868 he gained the Scholarship of Anatomy of his school, a distinction which carried with it the title and duties of Assistant Demonstrator of Anatomy. In 1870 he was appointed Resident Medical Officer of the hospital, becoming Resident Obstetric Officer in 1871. He took the degree of M.B. in 1871, that of B.S. in the following year, and that of M.D. in 1873. In 1872 he became a Fellow of the Royal College of Surgeons of England by examination. He took a high place in the examination for the Indian Medical Service in 1873, and almost immediately on his arrival in India in the early part of 1874 he was appointed Resident Medical Officer at Bhaugulpore.

In 1875, when the Snake Poison Commission was appointed, Dr. WALL was offered a seat on it. The greater part of the practical work of the Commission fell upon him as the youngest member. He held the position for three years, and then, in consequence of failing health, he sent in his resignation. He was twice asked to reconsider this step, but when he adhered to it, he received a letter of thanks from the Government for the valuable work he had done, and was given his choice between an appointment as Residency Medical Officer in Nepaul and Deputy Professor of Anatomy in Calcutta. Consideration of health led him to choose the former. Some time afterwards, when travelling on furlough, he contracted malarial fever, which became complicated with pneumonia. In consequence he came home invalided, and never recovered sufficiently to return to India.

In 1883 he published a book entitled *Indian Snake Poisons*, which made his name widely known. He next took up as a subject of special study the cholera, and followed successive outbreaks of the disease over Europe. In Italy and Sicily he was especially distinguished for his services during these. The Municipal Council of one town presented him with an address and the freedom of the town in recognition.

In 1892, as a result of these travels and investigations, he published a book on *Asiatic Cholera*, which was favorably received.

He had always been an indefatigable student of [illegible], and he now turned his attention still more closely to it, working at it for many months together at [illegible], Berlin, and Paris.

In December 1897, he left England with the intention of going to the Riviera, in the quiet there to put his pathological notes into form. But while staying in Paris for [illegible] he became so ill that by the advice of a specialist whom he consulted he returned to England and asked his sister to go to Hastings with him.

His condition became so much worse that on 21st April he was brought up, under care, to London, and after consultation with Dr. SAVAGE was placed in charge of a trained attendant under the care of a medical man. On Wednesday, 27th April, he managed to escape from his attendant by going out another way from St. George's Hospital, where he had gone, he said, to call upon some friends on the medical staff there. Although the police were at once communicated with in London, and telegraphed to stop him at the ports of Dover, Folkestone, Harwich, and Newhaven, nothing was heard of him by his friends until the following Monday, when, in consequence of information received by his sister, she went down to Guilford, and identified a body lying there as that of her brother. He had made his way there the previous Thursday and early in the morning had ended his life by stabbing himself to the heart. A *post-mortem* examination showed that Dr. WALL was suffering from thickening of the membranes of the brain, and this, together with the evidence his sister was able to give at the inquest that evening, caused an immediate and unanimous verdict of "Whilst of unsound mind" to be returned, in which the coroner fully concurred.

Another St. Mary's man and intimate friend of Dr. WALL from student days writes of him:—

"In manner he was diffident, quiet, and retiring. He was extremely well informed in every subject of art, science, and ligature—the best possible of companions. He talked German, French, and Italian fluently, and was keenly interested in the politics as well as the literature of the countries in which he made his home."

This brilliancy of mind continued to the last, and even whilst under medical care and restraint he captivated all whom he came in contact by his mental power and gentleness of demeanour. Throughout his life Dr. WALL had been singularly abstemious, and of very regular and quiet habits.

SURGEON-GENERAL JAMES IRVING, M.D.
Indian Medical Service (Retired).

THIS officer died at Clifton on 3rd May at the age of 75. He was born in Edinburgh in 1822 and after graduating in the University of that city in 1843, entered the Bengal Medical Service in 1847. He attained the rank of Deputy Surgeon-General in 1874, and retired with the honorary rank of Surgeon-General on 18th December 1879. He served with distinction throughout the Indian Mutiny. Most of his executive service was spent in the North-West Provinces, where he held important civil charges. For many years he filled the responsible office of Civil Surgeon of Allahabad, and gained a high reputation as a skilful physician and surgeon. Under a somewhat testy manner he concealed a kindly disposition and most charitable heart, and his advice and aid were eagerly sought and highly valued by those in sickness or trouble. He was an observant man and hard worker, and contributed several papers to the medical press, the best known being Observations on the Paley caused by the Vetch (Lathyrus Sativus).

His administrative life was spent in Bengal. He was the first Surgeon-General of the combined provinces of Bengal, Behar, and Orissa when the separation took place in 1878 between military and civil medical administration. His work in this capacity was characterized by competence, independence, and shrewdness. Since his retirement he has lived a quiet life, devoting himself to labors of charity and beneficence. He was emphatically a conscientious, good man, able official, and devoted to his profession.

SANITARY MEASURES IN INDIA.

IV.

Although the death-rate of Madras, averaging, since 1874, 45.54 per 1,000, is considerably larger than that of either Bombay or Calcutta, the information and particulars given in the volume on "Sanitary Measures in India" as to its insanitary condition are much more fragmentary and meagre than in the cases of those cities. For some non-explained reasons the report of the Health Officer for Madras is not included therein, and the report of the Madras Municipality is published without that part treating of its insanitary conditions.

Perhaps the insanitary condition of Madras, given in the suppressed reports, is, in the opinion of the Indian authorities, too disgraceful to be made public, but, after the revelations published as to Bombay and Calcutta, if this is the reason, it very much resembles straining at a gnat and swallowing a camel.

The year 1894 was, for Madras, a comparatively healthy one, the death-rate being the lowest since 1885.

The Army Sanitary Commission remarks on the subject: "It is evident from the small sums expended during the year in improving the drainage and water supply of the city, that no substantial progress has been made towards remedying the radical defects in either, only £6 849 10s. having been expended on the former and £6,363 on the latter. The drainage scheme proposed by Mr COUSINS may be excellent, but it is very expensive, and the municipal authorities may be excused if they hesitate to undertake a work estimated at £280,000, until after they have become convinced that the effectual drainage of their town cannot be carried out at less expense When once the main arteries of a good sewerage system are laid down, the sanitation of the town will be much simplified.

A water supply scheme has also been proposed by Mr COUSINS, but as this would involve an annual expenditure of £40,000, it is considered beyond the utmost strain that the municipal finances could bear. It is clear from the description given of the water supplied to the city that this should undergo filtration before distribution, but as it has not a sufficient head to admit of its being conveyed on to the filter beds unless first lifted by pumping, and as the cost of this would be prohibitive, the difficulty seems to be for the present insurmountable

Other improvements having for their object the more efficient removal of night soil and refuse, the prevention of intramural burial, the opening up of overcrowded parts of the town, the admission of sea water into the stagnant and fetid Cooum river, and such like, need not be interrupted because of the delay in arriving at a decision regarding the proposed drainage and water supply. But until these latter are undertaken and carried out, Madras will almost certainly continue to enjoy the unenviable reputation of being the unhealthiest of the three Presidency towns. All other improvements are of comparatively minor importance, and their effects, as measured by the death-rate, will probably be inappreciable.

The death-rate fell from 41, in 1893, to 36 5 per 1,000, but was still considerably higher than that recorded in the other two Presidency towns, although in these latter the year was an exceptionally unhealthy one. Of the chief diseases, fever was, as usual, credited with the larger share of the deaths. Although less fatal than during the preceding year, the mortality caused by it was much in excess of the average for the previous 10 years. Until Madras is provided with an efficient drainage and sewerage system, diminution in the annual mortality from fever need not be looked for On the contrary, as pollution and sewage logging of the soil must go on increasing in the absence of effectual drainage, the death-rate from fever may be expected to likewise increase. The mortality from dysentery and diarrhoea, although high, was below the average. The indifferent quality of the water supply doubtless favours the prevalence of these diseases.

The number of deaths in 1894 was 16,542, a decrease of [illegible], or 11.03 per cent. under 1893; of [illegible], or 20.65 per cent. under 1892; of 7,360, or [illegible] per cent. under 1891, and of [illegible], or [illegible] per cent. under 1890. The death-rates per 1,000 were, in 1894, 36.5; in 1893, 41; in 1892, 46; and in [illegible] [illegible]. As in the case of Bombay, statistics date from 1874, and the average death-rate per 1,000 for the period 1874—94, is 45.54. The highest death-rate, [illegible] per 1,000, was in 1877; the nearest to the average, [illegible], [illegible]; and the lowest, 34.7 per 1,000, in 1879. Dividing the whole period into three terms of seven years, gives an average death-rate of 52.73 per 1,000 for 1874—80; of 40.12 per 1,000 for 1881-87; and of 42.23 per 1,000 for 1888-94. Dividing the period into seven terms of three years, there was considerable fluctuation, the highest rate, 64.9 per 1,000, being in 1877-79; the nearest to the average, 45.8 per 1,000, in 1874-76, and the lowest, 37.3 per 1,000, in 1880-82. Bearing in mind the necessary caution as to the value of registration statistics in India, these figures show a great improvement in the middle period which was not kept up in the third period.

The great difficulty in dealing with the problem of Madras sanitation lies in the fact that the high death-rate is not the result of any one cause, but of a conjunction of nearly all the causes that affect mortality all over the world. The most important, briefly, are, an indifferent water-supply, defective drainage, and, over a considerable portion of the municipality no drainage at all, a porous soil loaded with organic impurity, a putrid and fluctuating subsoil water rising comparatively near the surface, want of open spaces in some parts of the town, crowded parcheries for the poor, overcrowded and ill-ventilated houses for the middle classes, in many cases directly connected with the subsoil water by wells in their interior, burial grounds and slaughter houses in the city, and lastly, the general social, conjugal, and religious habits of the people. These are matters which can only be remedied by a heavy expenditure of money and years of systematic and patient work. There can be no doubt that the high death-rate is due to local conditions and not to climatic influence, for both Europeans and natives who live in well-built houses in the better parts of the town, and are properly clothed and fed, enjoy a comparative immunity from disease and death

The chief causes of death in Madras were fever, dysentery, and measles, and formed 52.66 per cent. of the total. Deaths from fevers, 37 05 of the whole, were 6,128, a decrease of 500, or 3.02 per cent, under 1893 Although this is an improvement, it cannot be considered satisfactory, as it is still far above the average The death rate per 1,000, 13 5, fluctuated from 8 5 in the Eighth Division, South Ward, to 21 7 in the Third Division, Centre Ward The mortality was much less in the rural and suburban areas in the south and south-west of the municipality, where aggregation is less, and there are plenty of trees to dry the ground, than in the crowded area of Black Town.

The general conditions which produce a heavy mortality from fevers in Madras are the general insanitary conditions which prevail, especially those due to the want of good drainage and pure air The result is materially affected by the want of ventilation and overcrowding of houses, in which people breathe air vitiated by organic matter given off by the lungs and skin mingled with which are the gases from the sewage-poluted grounds and from the drains both inside and in the streets beneath the door and windows.

It is a matter of the greatest difficulty to diagnose a non-eruptive fever among people who rarely attend a hospital or avail themselves of the ministration of a medical attendant of any grade, and who, for the most part, die in their parcherries without being seen by anyone but their relatives.

According to a report of Mr. COUSINS, who visited Madras and examined the drainage and water-supply, Madras is drained on the open-channel system; that is, the drainage of the houses is discharged into open channels in the street, some of which are formed in the soil without brickwork, concrete, or any proper construction, whilst others are of defective brickwork with open joints, &c.

The open channels in Black Town and a few other parts of the district have been recently reconstructed in a very superior manner to those generally found. Under the system now pursued, all rubbish, dust, ashes, and the principal part of the solid excrementitious matter are collected and removed by the conservancy carts and disposed of in various ways. The fouled water from the houses, the urine, part of the excreta mixed with the water used for the daily washing out of privies, bath, and sink water, &c., are discharged through the house drains into the open drains in the street.

House drains are usually constructed of very imperfect brickwork, having open joints and generally laid but a few inches below the level of the floors of the houses with

[illegible] The soil for some distance round these drains must of necessity be saturated with sewage, which must injuriously affect the health of the occupants. These drains usually terminate at the front walls of the houses at a height of 2 or 3 feet above the public drains in the street; here the sewage pours or trickles down the surface of the front walls of houses until it reaches the open channel, which conveys the sewage to a large open drain. Then it passes on into other wider and deeper drains, until, eventually, it is discharged into covered sewers, which convey the sewage to pumping station where it is pumped on to one or other of the 11 sewage farms.

When the engines or pumps at these stations are not at work, or if there is more sewage than the land and pumps can deal with, the overflow at such times is discharged directly either into the River Cooum, the Buckingham or Junction canals, or into the sea.

In some parts drains are found which do not connect with sewage farms, but empty their contents into the river and canals or stagnant pools. Thus the sanitary aspect of a Madras street presents the spectacle of a row of open house drains on either side of it discharging sewage matter into two open public drains. It is no matter for wonder that in all parts of the town the subtle odour of sewage, more or less strong, is distinctly apparent; and when the abnormally high death-rate accelerated by these insanitary conditions are considered together with the moral effect which the constant sight of the filth must have on the native mind, no more crushing arguments against the open channel system could be adduced. One disgusting practice alone under this system should be sufficient to ensure its abolition—the present method of the collection of the fæces by men and women.

If no back entrance exists to the house, the native must enter the back yard by a small covered inlet generally provided with a door. This opens from the street to the privy, where the man or woman collects the excreta of the household and conveys it to the pails in the carts in the streets, which are provided for its removal to the depôt. The privy is generally washed out at the same time, the fouled water going into the open drain in the street. I cannot speak too strongly against such a repulsive and loathsome practice. To the inhabitants it must be a source of supreme disgust, while its degrading influence upon those carrying out such work cannot be over-estimated.

Even in Black Town, where the open-channel system is seen at its best, the concurrent evils can be plainly noted; but in other parts, where, either through choked-up channels or insufficient gradients, the sewage remains stagnant or soaks through badly constructed or broken drains into the subsoil, the evil effects are patent to all.

A large proportion of the native population are shopkeepers; these, with their assistants sit month after month vending their wares in the impure atmosphere arising from the open drain immediately in front of their shops while their customers stand over the same foul-smelling channel to make their purchases. The wonder is, not that the mortality returns are so high, but that they are so low under these conditions.

The solid contents of the sewage settle in the bed of the River Cooum, and form layer upon layer of horrible deposit, while the fluid portion emits the stench which has gained for the river its unenviable notoriety. As the hot weather increases, the river gains in potency until the noxious exhalations are apparent at a considerable distance.

The nuisance and inconvenience which must result for the numerous dwellers upon or near the banks must be very great; many large buildings, such as Government House, the Government Office, the Senate House, and the Penitentiary, are near it; whilst the effects on the inmates of the General Hospital and the Women's and Children's Hospital are matters for grave consideration. The river, also, breeds myriads of organisms, and is credited with producing the plagues of mosquitoes which at times infests Madras. In this cesspool of stagnant filth men may be seen every day fishing, and doubtless the results of their labors are vended for human consumption. Thus the river in its present condition is a standing menace to the health of the inhabitants of Madras during the time it remains a motionless pool in the centre of the town; even when tidal it is a source of great danger under the present conditions, as the decomposed and decomposing deposits on the bed of the river are disturbed by the action of the tidal waters, and thus permitted to freely throw off obnoxious gases. The greater part of this sediment would doubtless be removed when the river is in flood and flowing freely outwards to the sea, but this may only occur for two or three months in each year; for the remaining nine or ten months the mouth of the river is blocked by the bar, and the matters held in suspension once more deposited.

No scheme of drainage for the town of Madras will be in the remotest degree satisfactory unless it provides for the total elimination of all sewage matter from the River Cooum.

Although the report was written in the middle of 1895, and in October 1895 the Army Sanitary Commission stated that Madras had arrived at a critical point in its sanitary history, it was not until last March that the Madras Government sanctioned the long-contemplated drainage scheme, but the main part thereof was postponed pending arrangements between the Government and the Municipality.

The deaths from dysentery and diarrhœa were 2,292, a decrease of 316, or 11·66 per cent. under 1893.

The principal water supply of the town is received from the Red Hills tank, arriving at the town after flowing through about six miles of more or less inhabited area. The distribution is on the "constant system," but pressure is insufficient, and at times the pipes at certain points are empty, irrespective of the whole town supply being turned off for two hours weekly. Flushing pipes dip directly over and into drains, certain mains pass through sewers, pipes to fountains pass beneath permeable gutters, and run close to old underground permeable drains; contamination by aspiration of air on fluids is therefore possible during temporary cessations of flow.

Another source of water-supply—the "town wells"—and that used by the British troops is derived from the subsoil flow in a belt of sand within the inhabited area of the town, and in former days yielded a fairly pure supply, but the wells are within the subsoil flow of the site of a sewage farm that is not under-drained, the farm being made of rubbish deposits that must contain tons of fæcal matter. It is not to be wondered at that the water is now pronounced chemically bad. Typhoid fever has been frequent and coincident with a general fall of the subsoil water level of the town site, and the source must therefore be regarded with suspicion, though no direct proof of specific contamination has been forthcoming. The conservancy arrangements of the municipality are bad in the extreme, both staff and plant being below actual requirements. Many of the old tanks of the town have been in former days, and up to the present time are, filled with town rubbish, and, therefore—in the absence of a complete night-soil system—with much excreta. Without entering into further details, it stands to reason that the subsoil of the town is peculiarly and unusually contaminated with organic matter, and is unfit for use as a water-collecting area.

No substantial improvement was produced during the year in the sanitation of Madras, but £40,000 was borrowed for expenditure upon the improvement and extension of the water supply. A scheme for the purification of the Cooum was approved by Government, and estimates for carrying it out were under preparation. The drainage scheme prepared by Mr. COUSINS was also under consideration, but the Government were of opinion that the cost of its execution, which would necessitate an increase of 62 per cent in the taxation of the city, was prohibitive, and that native habits and the conditions existing in the city would render the closed connection with houses proposed in it unworkable, and a source of danger rather than of benefit to the inhabitants. A modification of the scheme has since been proposed by a committee of the Commissioners and was under the consideration of the Government. Estimates were also drawn up for carrying out Mr. COUSINS' scheme of water supply. In addition to the above proposals for the more satisfactory disposal of the rubbish of the city were being matured, and other improvements were in contemplation. The execution of these schemes of improvement is expected to produce a real advance in the sanitary condition of the city.

The municipality was carefully inspected during the year. The highly unhealthy condition of the city having attracted the attention of the Madras Government, in 1890, a special committee was appointed to advise as to the nature of the urgent sanitary improvements, in connection with drainage and water supply, that were considered necessary. Rough schemes were formulated, and the Government, on the advice of the committee, employed a European expert sanitary engineer to advise and estimate for complete schemes.—*The Public Health Engineer.*

(To be continued.)

VITAL STATISTICS OF CALCUTTA.

Statement of Deaths from Principal Diseases in Calcutta during the week ending 14th May to the 4th June 1896.

Week ending.	Cholera.	Small-pox.	Fevers.	Bowel complaints.	Also other diseases.	Total.	Total population, according to the census of 1891.	Ratio per 1,000 of population per annum.
14th May	24	4	92	57	179	356	6,61,560	27·2
21st May	17	1	101	62	217	398	...	30·4
28th May	15	2	86	62	168	333	...	25·4
4th June	7	3	79	67	179	335	...	25·6

Current Medical Literature.

MEDICINE.

Varieties of Diabetes Mellitus.

DR. LEPINE shows that clinical observation distinguishes between certain varieties of diabetes mellitus. In the nervous variety the glycosuria is often quite moderate, and may even disappear, leaving behind a simple polyuria. The type developed under the influence of gout in arthritic individuals is associated with an intermittent but abundant glycosuria, and is comparatively benign. Certain diseases of the pancreas, such as calculi of Wirsung's canal and sclerosis of the whole parenchyma, may be followed by a rapid and dangerous diabetes. There are other varieties difficult to classify. Each case is constituted by several pathogenic elements of varying importance. Hyperglycæmia may be caused by lack of the physical storing of glycogen by the hepatic cells (azoamylia) and this condition of the cells may be caused by lesions or irritation of the nervous system, various poisons, ablation of the pancreas, etc. Another cause may lie in the excess of primary proteolysis and in glycogenesis without glycogen. It is a positive fact that in many cases of diabetes there is exaggerated destruction of nitrogen, and some diabetic patients excrete large quantities of sugar after the ingestion of much meat. There is ample justification of the assumption that sugar produced in the organism may be derived directly from albuminoid substances. In certain forms of diabetes the sugar may be lacking. It may disappear either by transformation into fat or by oxidation. The inadequacy of one or other of these two processes may constitute a pathogenic element of diabetes. There may also be a reduction in the amount of the glycolytic ferment, and the renal element must not be overlooked. In pancreatic diabetes there is azoamylia, diminution of the glycolytic ferment, diminished formation of fat, diminished production of sugar. In the nervous variety there is azoamylia, exaggerated hepatic glycogenesis, and diminution of glycolytic ferment. The theory of multiple factors explains the infinite varieties of the disease.—*Gen. Med.*

Splenic Tumor in Rachitis.

DR. VON STARCK says, that in one hundred cases of rachitis the diagnosis of splenic enlargement was made sixty-eight times. The situation of the tumor is the same as in the adult. There is no ground for the belief that the spleen is relatively larger during the first year of life than in the later years of childhood, yet during the first year the spleen shows an extraordinary tendency to enlarge under pathological conditions. The splenic enlargement, in the cases of rachitis examined, was generally medium. There is no constant relation between the severity of rachitic bone changes and the amount of enlargement of the spleen: the latter is more constantly governed by the severity of the accompanying anæmia. Autopsies on rachitic children (when other causes of splenic enlargement, *e.g.*, infectious diseases, could be excluded) showed a splenic tumor in over fifty per cent. of the cases. The tumor was more generally found in those presenting marked rachitic bone alterations, yet even if the latter be very severe the enlargement may not exist. The splenic tumor, either macroscopically or microscopically, shows nothing characteristic. The writer concludes that tumefaction of the spleen can hardly be considered a symptom of rachitis in children, and that it is caused by the same unknown noxious product that produces the rachitis.—*N. Y. Med. Jour.*

Differential Diagnosis between Gastritis and Cancer of the Stomach.

CHAUFFARD recognising the difficulty in differentiating hypopeptic gastritis from cancer of the stomach, says that variation in weight of the patient is a sign of great value. As a general rule, if a cancerous patient is put upon suitable diet and is given a great deal of rest, his weight will slightly increase, perhaps to the extent of three or four pounds. Such increase in weight is invariably followed by a progressive loss which continues without interruption until the patient is emaciated. A dyspeptic patient, on the other hand, will continue, under suitable treatment, to gain weight until a maximum point is reached, at which the weight is constantly maintained—a point which may be fifteen or twenty, or even thirty pounds in excess of the weight at the beginning of the treatment.—*Med. News.*

Pyretic Drugs.

IN his Croonian lectures, DR. W. HALE WHITE stated there are many pyretic drugs. Thus strychnine and caffeine both raise the temperature a little and large doses of quinine cause considerable elevation of temperature, which may suddenly rise to 104°F. in belladonna poisoning; but the rise produced by *b* tetrahydronaphthylamine in the pulse, respiration and temperature so resembles in extent and rapidity that caused by injuries to corpus striatum that it is probable that in this drug we have an agent that stimulates the thermogenetic centre without exciting the motor function of muscle; or, in other words, this drug, acting on the muscles through the central nervous system, is capable of producing a rise of 8° to 9·9°F. in one hour, and that if it is to be used as fever remedy, great caution is required on account of its marked effect on the heart.—*Brit. Med. Jour.*

Chronic Glycosuria.

IN a paper presented to the Academie de Medicine, WORMS who has a wide clinical experience of this disease, advises patients to determine each his own diet and take plenty of out-door exercise if they wish to ensure longevity. He examined the urine of 100 brain workers, who led sedentary lives and found considerable quantities of sugar in 7 of them; whereas among 607 artizans and laborers sugar was not found in one. After excluding the hepatic cases he classifies diabetics as:—(1) Those who have large proportions of sugar, but easily reducible. (2) Those whose sugar is not reducible; and (3) those in whom the sugar altogether ceases, but reappears after a long interval—sometimes as long as 12 months generally after some violent emotion, and this is particularly the case in gouty subjects.—*Col. Jour. of Med.*

SURGERY.

Transplantation of Skin Grafts without Pedicle from one part of the Body to another and from one Patient to another.

Having, some years ago, to operate on a woman for ptosis, Dr. C. Bell Taylor inadvertently excised rather more than he wanted to of the upper lid; but finding it impracticable to transplant a piece of skin with pedicle from the immediate neighbourhood, he replaced the apparently dead eyelid which took kindly to its old quarters and the shrinkage due to its temporary demise (transplanted skin shrinks to nearly 0·2 of its original size) sufficed to restore the normal position of the lid. Since this he has frequently transplanted skin from one part of the body to another, and from one patient to another. On one occasion he cured extensive symblepharon by transplanting a large piece of skin on to the surface of the eyeball itself and in another case where the facial tissues were so completely destroyed by burn as to make it impossible to find healthy tissue in the neighbourhood of the orbit, he restored an eyelid by a piece of skin taken from the forearm. The points necessary to success are (1) clear away subcutaneous tissue, (2) *closely* approximate the edges, (3) apply pressure and (4) keep the flap warm.—*Lancet.*

Lumbar Nephropexy without Suturing.

Senn, who strongly objects to the practice of incising and detaching the fibrous capsule and thus permanently and seriously injuring the kidney, relies on extensive excision of the adipose capsule in the fixation of movable kidney and altogether dispensing with sutures, trusts exclusively to (1) extensive removal of the perirenal fat, (2) scarification of the fibrous capsule, (3) direct temporary support of the kidney by a strip of iodoform gauze, (4) plugging the wound with gauze, and (5) prolonged rest on the back with (6) localised compression of the front of the abdomen.—*Jour. Amer. Med. Assoc.*

Spontaneous Straightening of Rickety Curvatures of the Leg.

From a study of a large number of cases at the Tubingen Clinic, Kamen concludes: (1) The greater number of all cases of rickety curvatures of the legs undergo spontaneous cure. Of the author's cases, all severe, seventy-five per cent. were cured, 15·3 per cent. improved, in only 9·7 per cent. was there no improvement of the deformity. (2) The process of spontaneous straightening lasts usually from two to four years. If the curvatures began in the first or second year of life the legs are quite straight by the fourth or fifth. (3) If the curvatures are unchanged by the sixth year, spontaneous cure does not take place at all. There are always cases of most severe general rhachitis. (4) The chief aim in treatment is to improve the general health so as to strengthen the muscles. In Kampe's experience, as soon as the disease is past the acute stage, being about on the legs is not detrimental, but, on the contrary, helps the cure. Orthopædic treatment by plaster-of-paris, splints, etc., is not necessary. Osteotomy is indicated only when the curvatures persist after the sixth year.—*Canad. Pract.*

Operative Surgery of Gastric Ulcer.

Hutchinson gives the indications for surgical interference in gastric ulcer: (1) In perforation it is absolutely necessary to act as early as possible, unless the perforation, and to wash out the abdomen. Since 1884 the mortality after operation has fallen to 53.94 per cent., and without operation the condition is almost necessarily fatal. (2) For stricture of the pylorus. In this condition it is hard to distinguish obstruction from swelling of the pylorus from the ulcer, or from pyloric spasm from other causes. For the latter there are three possible operations: (a) Resection of the pylorus; (b) gastro-enterostomy; (c) pyloroplasty. Of these the first is the most dangerous, and has no advantages over the others, unless the ulcer can be excised with the pylorus. Pyloroplasty is not applicable if the ulcer extends to the pylorus, or unless the pylorus is adherent, and its walls have lost their softness. When there is choice between the second and third methods, Mikulicz prefers pyloroplasty. (3) Operation may be required for adhesions or abscesses in connection with the ulcer. These are mostly very hard to diagnose, but it must be remembered that in some cases of persistent pain exploratory laparotomy is justified. (4) For hæmatemesis. Since sudden death is the exception, and many cases recover with medical treatment, the propriety of operation is still doubtful. Hartmann's 12 cases gave 8 deaths and 4 recoveries. The author believes the chief point to be the quantity of blood lost. For violent hæmorrhage laparotomy has almost always failed. Sometimes the infiltration of the surrounding tissues has rendered excision of the ulcer or ligaturing the bleeding vessel impossible. Often the bleeding comes from a branch of the splenic artery, whose territory is very difficult to reach, and sometimes the ulcer has been too small to be found. For slighter hæmorrhages which become dangerous through repetition operation may be successful; usually pyloroplasty or more often gastro-enterostomy have been performed in such cases with a view to procuring rest of the stomach, and consequently of the ulcer and its healing. (5) This last consideration has led some to propose gastro-enterostomy for cases of uncomplicated gastric ulcer. The general death-rate for all cases of gastric ulcer is 25 to 30 per cent., for gastro-enterostomy only 16.2 per cent., and therefore the operation has less danger than the disease. Another advantage of not waiting for complications is that the patient is in better health. At any rate cases which do not improve with medical treatment in a reasonable time should be treated surgically.—*Brit. Med. Jour.*

A Story with a Moral.

Dr. Frederick Holme Wiggin said that the great mortality following operations for intestinal obstruction was due, in his opinion, to the delay in operating. The usual history was that the attending physician had purged the patient freely with salines, and had lost very valuable time before calling in a surgeon. He referred to a case in which the patient had refused operation and the friends had besought him to give morphine. He had given one dose, but, finding no amelioration of the symptoms, he had positively refused to continue its administration. Finally consent was obtained to an operation, and when it was performed, it was evident, from the beginning gangrene of the parts, that had he yielded to their entreaties and continued the morphine, death would have been the result. It should be remembered that occlusion of the large intestine might exist for ten days or two weeks without any painful symptoms, except vomiting. In chronic cases there was often a history of a blow or some injury which would aid one in locating the seat of the trouble. If there was a history of obstipation, and rectal examination and rectal colonic irrigation gave a negative result, there was reason for believing that the case was one of intestinal obstruction. The general practitioner often made the diagnosis of intestinal obstruction, but delayed sending for a surgeon until he had determined the particular cause of the obstruction.—*N. Y. Med. Rec.*

OBSTETRICS AND GYNÆCOLOGY.

Vaginal Cæsarean Section with Total Extirpation of the Carcinomatous Uterus at Term.

SHEPHARD adopted the procedure advocated in DUHRSSEN'S monograph on vaginal Cæsarean section. The child was saved alive, but the mother died two days after the operation of heart failure. The patient was 37 years of age, and had had five children by two marriages, and sought advice only two weeks before her expected confinement on account of repeated and offensive discharges of blood. A cancerous mass, the size of a man's fist, was discovered arising from the posterior wall of the cervix. Part of the anterior lip and the whole of the supravaginal portion of the cervix were free from growth. After the usual preparations the cancerous mass was scooped out and the tumour remains energetically disinfected. Later in the day the operation was performed The whole of the posterior lip of the cervix was first removed, the bladder was separated off, and the lower part of each broad ligament ligatured The anterior lip was then split, and the division carried on to the body of the uterus, the cut edges being bound with ligatures to control bleeding. The bag of membranes was ruptured, and the head of the child was driven down, rendering forceps necessary, it had been intended to turn. The child was born partly asphyxiated, but was soon revived with a few swings on SCHULTZE'S plan. The placenta was at once removed, the anterior uterine wall folded in, and the fundus turned out, after which the posterior wall was split, and each half of the uterus removed after securing the broad ligament with clamps. The patient went on well till the morrow midday, after this she gradually sank of heart failure. The author speaks well of vaginal Cæsarean section, but inasmuch as the patient might, he thinks, have recovered if he had postponed the total extirpation of the uterus, he recommends that this part of the operation should always be postponed if the delivery procedures are difficult or the patient weak, but with a small child and favorable conditions he counsels completion of the operation at one sitting.—*Brit. Med. Jour*

Hydramnios in Several Successive Pregnancies.

DR. CARRIE E. LIEBERG reports the case of a lady who had four hydramniotic pregnancies in succession. She first aborted at eight months with a female child weighing six pounds whose head and face were perfect, but the body and limbs horribly distorted. This was the first pregnancy in the lady's fifth year of married life and twenty third of age Five years later a second pregnancy ended in abortion at the third month, a mass of about the size of a fœtal head being cast off, which proved to be an amniotic sac containing a fœtus of the size of a white bean, without any sign of placental attachment. Four years later the lady had married again, when at eight months another discharge of water occurred, and a male child weighing five pounds and deformed in the lower extremities was born. The placenta, as before, was exceedingly small. The child lived and with care has become a hearty boy, the deformities having been corrected. A subsequent pregnancy ended in abortion with a bag of water at the third month. The lady is healthy in every way and has nothing peculiar in her family history, and her pregnancies and removales have all been uneventful.—*N. Y. Med. Rec.*

Puerperal Infection.

NORRIS sums up as follows :—1. Principal sepsis is caused most frequently by the physician or midwife. 2. In a parturient woman internal examinations should be made as infrequently as possible 3. Antepartum and post-partum vaginal irrigations are to be omitted 4. At the first symptom of puerperal sepsis, circumscribed pelvic inflammations should not be overlooked and operative interference should be undertaken at the proper time 5 For the further treatment, energetic stimulation, intravenous, subcutaneous, and intrarectal injections of a decinormal salt solution, are said to play a most important part. 6. The use of antistreptococcus serum proves efficacious only in those cases in which a pure streptococcus infection exists.—*N. Y. Med Rec.*

Pelvic Disease in Women the Subject of Hereditary Syphilis.

HAVING to deal with a 'virgo intacta' for whose backache and leucorrhœa there was no apparent origin, Dr. J SHAW-MACKENZIE, who thinks it especially difficult and undesirable to inquire too much into histories in such cases, noted that on her face and at the angles of her mouth and nose were several cicatrices left by an eruptive condition in infancy, and which no doubt was syphilitic. Further investigations lead him to conclude :—(1). That the acquired syphilitic origin of pelvic disease in parous women was largely overlooked and rarely mentioned at the present day, though (2) few mothers of syphilitic offspring escaped some subsequent uterine, ovarian or tubal disease, and (3) these might be transmitted through the mother to the third generation much more commonly than is supposed. He lays great stress on the fact that (1) the subjects of hereditary had recurring sorethroat, falling out of hair, leucorrhœa, menorrhagia, sometimes Hutchinsonian teeth, and frequently pelvic inflammatory disease, which marriage and conception aggravated; (2) sisters sometimes presented similar symptoms, (3) there is positive or suggestive history of syphilis in the patient's father and none in her husband, while (4) her mother presents a suggestive history of abortions, premature births, dead children, possibly floodings and puerperal fever —*Clin Jour*

Operation for the Prevention of Conception.

A WOMAN, who was still young, had fallen into a state of grave anæmia after seven successive confinements, and Dr. KEHRER, Professor of Obstetrics and Gynæcology at Heidelberg, performed the following operation, according to *La Semaine Medicale*, in order to prevent further pregnancies. By a median vaginal incision he penetrated the peritoneal cavity, then drawing the tubes into view he placed around them two catgut ligatures. This done, he performed vaginal hysteropexy immediately above the internal orifice of the uterus, introducing into the vesico-uterine cavity a strip of gauze and suturing the wound into the vagina so as to leave a small opening for the passage of the drainage Apart from a little fever and slight suprapubic pain there were no sequelæ. This process of artificial sterilisation possesses the advantages over castration of being a less serious operation and of not bringing in its train the nervous troubles that double ovariotomy does. Dr. KEHRER thinks this could be done in certain grave affections (anæmia, pulmonary and cardiac lesions) which render pregnancy dangerous. He acknowledges that from a moral point of view the legitimacy of this operation could be questioned, and believes it ought not to be performed without the written consent of the parties concerned and a statement of the motives for such intervention.—*N. Y. Med. Rec.*

PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

The Physiology of Anesthetics.

MANY valuable and voluminous papers on anesthetics have appeared during the year, notably one in which HILL carried further his research, published this year in the *Journal of Physiology*. He pointed out that the circulation of the blood depends upon the vaso-motor mechanism being intact.

The abdominal wall is able to support the veins and so prevents their distention under the hydostatic pressure of gravity. Muscular contraction during expiration compresses the hepatic and other veins helping to fill the right heart. When the vaso-motor tonus is maintained the splanchnic area abrogates the effect of gravity. If vaso-motor paralysis gravity at once causes accumulation of blood in the abdominal vessels. This leads to anemia of the brain and the respiratory center is driven to greater activity. Powerful muscular movements take place and the blood again enters the right heart. Contraction of the abdominal muscles limits the outflow from the splanchnic vessels. When both the vaso-motor tonus and the respiratory pump are paralyzed the circulation cannot be maintained in the "feet down" position. Chloroform paralyses both these factors of the circulation. No amount of compression of the abdominal veins will produce paralytic distention of the heart. Both chloroform and asphyxia will do so. HILL finds that such a condition is at once relieved by dropping the patient into the "feet down" position as the blood at once flows from the right heart by the force of gravity. The teaching of physiology has thus a practical value and tells us that the vaso-motor paralysis is a danger to be looked for and provided against as well as the always accepted danger of respiratory paralysis, a condition which HILL finds may arise from anemia of the brain centers as well as from accumulation of the drug.—*Med. Age.*

Man's Ancestors.

WE can point now to the longsince extinct ancestors of the lowest vertebrates, we are able to introduce all the reptiles, the birds, and the mammals to their primitive prototypes. In the mammals particularly, gap after gap which seemed to separate species and genera and orders has been successfully spanned by the discovery of intermediate forms; and we have now the genealogical types of the deer, musk, horse, tapir, rhinoceros, cat, lemur, monkey, and many others; and yet, as regards the pedigree of man, we are still in the dark. Professor HUXLEY'S impressive words still hold. Paleontology sheds no light on man's origin for, "so far as that light is bright, it shows him substantially as he is now, and when it grows dim it permits us to see no sign that he was other than he is now." Missing links to connect the human species with the demonstrated evolutionary law of the world of life and matter are quoted, of course; but it seems well nigh impossible to prove that an alleged link is anything more than an extreme instance of some particular type. And it is pretty certain that if missing links exist, they must be sought for in a period much farther back than we are at present able to explore.—*N. Y. Med. Rec.*

Acquired Immunity.

QUOTING from Marseilles statistics of 33 second attacks of scarlet fever, 37 of measles, 314 of small-pox and a large number of syphilis and of whooping cough, and arguing on the strength of VOGES' proofs of precisely similar immunity as that conferred by injections of attenuated cultures of specific serum being obtained by serum from perfectly healthy animals GOLTSTEIN dismisses the prophylactic claims of vaccination as so much rubbish and considers it just as justifiable to conclude that because a man does not have an infectious disease twice he has become immune to it through the first attack, as it would be to insist that the same person should win the first prize in a lottery twice running. He maintains that the experimentally established immunity of PASTEUR is not true immunity but merely a heightened power of resistance, and urges that human acquired immunity should be investigated without reference to experiments on animals. The rarity of the recurrence of infectious disease in the same person he attributes to the law of probabilities aided by three factions:—(1) Many diseases, such as diphtheria, being particularly associated with the early years of life, the patient exposed to a second infection has very often passed the age of especial liability (2). Other affections, such as typhus, occurring typically in short infrequent epidemics, minimise the subjects chances of re-attack. (3) Deadly diseases, such as cholera, spare those only who are most resistant, and in these persons the probabilities of recurrence are indeed few. Again, acquired immunity not being transmissible family and racial non susceptibility to disease cannot be explained except by heightened resistance by the elimination of the weak in the struggle for existence, while in many of the exanthemata the true cause of immunity may be due to toughening of the skin by the first eruption preventing cutaneous infection.—*Brit. Med Jour.*

On the Sputum of Pulmonary Carcinoma.

P. HAMPLEN claims that carcinoma of the lungs is not very rare, nor is the diagnosis so very difficult. He admits, however, that the symptoms produced by isolated, oftentimes metastatic carcinomatous tumors are very obscure. On the other hand, diffuse carcinoma of the lung, generally primary, gives a fairly characteristic symptom complex: 1, symptoms of unilateral consolidation of lung tissue, causing either retraction or expansion of the thorax; 2, irritation of the bronchi, producing cough and expectoration; 3, irritation of the pleura, producing exudation of all kinds; 4, pressure on the neighboring organs, particularly on the nerves and veins; 5 increasing cachexia Added to these symptoms is the character of the sputum. Macroscopically the bloody character of the sputum is to be observed; generally the hæmoptysis is very mild and recurs two or three times; more rarely the pulmonary hemorrhage lasts a long time, though at no time is the bleeding copious. The hemorrhagic character of the sputum, its tenacious consistence, its early occurrence—these facts are of great diagnostic importance. The discovery of carcinomatous tissue in the sputum is of course almost pathognomonic, though this is extremely rarely found. Microscopically the writer lays great stress upon the discovery of polygonal alveolar epithelium, often pigmented, which in isolated cases is found in the sputum of many diseases, very rarely in normal sputum. If, on repeated or even on comparatively few examinations, such polymorphous polygonal epithelial cells alone are found, or there are found in overwhelming numbers cells with sharp contour, containing nucleoli the cells either occurring in masses or separated, the inference is that a pulmonary new growth is present; indeed, the writer claims that the above microscopical picture presents itself only in cases of malignant tumour of the lung. The above described cells are easily differentiated from the pavement and cylindrical cells; besides, the latter contain no pigment.—*N. Y. Med. Rec.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Does the Cooking of Animal Food kill Pathogenic Organisms?

Two papers on this subject have lately appeared. One by Dr. FIORE and the other by M. VALLIN. In such investigations two methods are applicable. The one is to determine the temperature in different parts of the cooked meat, and this was adopted by M. VALLIN; the other is to place in or on the raw meat, portions of a culture of a pathogenic organism whose lethal temperature is known, and, after cooking, to determine by experiments on animals if it has been killed, and this was largely relied upon by FIORE. By using fine drawn-out tubes, containing a small portion of a crystallisable organic body whose fusing point was known, and inserting these in different parts of the meat, M VALLIN got the following results:—The weight operated upon was in each case about 6 lbs. Gigot of mutton, roasted in Dutch oven one hour and ten minutes, at no part was above 59°C., and some parts not even 56°C Gigot of veal, roasted two and a quarter hours, had all parts above 69°C. Roast beef, roasted one and a quarter hours, had some parts above 59°C., and others under 56°C. Gigot braised for three hours, all parts above 69°C. FIORE used cultures of anthrax bacillus, sometimes spore-bearing and sometimes not The cooking was only considered complete when the section was no longer reddish nor moist. After cooking, the piece of flesh was cut in two; one part placed in sterile conditions under a bell jar to allow any organisms present to grow, and the other at once examined. In both the subsequent procedure was the same, namely, to scrape the meat both superficially and deep with a sterilised knife, and mix the scrapings with distilled water. This fluid was used for injecting into animals, to prove whether the cooking had removed the virulence. His results are shortly as follows:—

1. Prolonged boiling of animal food is the most certain method of destroying pathogenic organisms contained in it, whether these are spore-bearing or not. 2 Thin slices of beef when grilled, or roasts done in the oven, never attain a temperature sufficient to destroy spores, though, when this method of cooking is continued long enough, it is sufficient to kill the bacillary forms. 3. The braising of beef kills neither bacilli nor spores.—*Edin. Med. Jour.*

Distribution of the Meals.

WHEN an interval of over 5 hours elapsed between one meal and the next, Professor IMANUEL MUNK found that the body was forced to consume its own albumen, fat and carbohydrates. Brain workers require food more often and at shorter intervals than do manual laborers, and the different meal-hours of different countries has as much to do with custom as with physiological requirements. He also shows that the common regulation and distribution of the day's food, both as to time for meals and the quantity to be eaten at one meal, though entirely empirical, closely approximates the hygienic and physiological requirements of the human body.—*Zeit fur Kran.*

Differential Reaction of Woman's and Cow's Milk.

AMONG a series of investigations on the albuminoids of human and cow's milk, URENIKOFF demonstrates that the addition of ammonia to woman's milk causes a dark red coloration, while on cow's milk no such change is elicited.

According to the amount of ammonia added, the more pronounced is the reaction, the color passing from red to violet on increasing the amount of the reagent; the minimum quantity of ammonia capable of giving a violet tint being a drop of a 10 per cent. solution to 5 c.c. of milk. This reaction is accentuated by heating the milk to 60°C, while, on boiling, the violet hue is changed to brown.

Perhaps its most practical bearing is derived from the fact that the more intense does the reaction become the greater the length of time after the confinement; thus it might be used with advantage in testing the accuracy of the statements of wet nurses.—*L'Obstetrique.*

Women who Smoke.

THE *London Daily Telegraph* says that "the great middle class is smoking the cigarette as unconstrainedly as the aristocratic order, and working womanhood is taking it up to an extent which is certain ere long to attract the attention of those stern moralists who see in even the purchase of a penny-worth of sweets a growing tendency to self-indulgence. Inquiries among doctors, district visitors, tobacconists, and others who are most capable of expressing an opinion on the subject, have brought forward some very curious facts Nowhere are to be found more inveterate female smokers than in those long streets in the less considered suburbs of 'genteel' residences, rented at from £24 to £30 a year. The clerk or the shopman marries the typist or waitress, and two such couples share one of these houses. The women soon fulfil their modest household duties, they have slight resources in themselves for reading or artistic work, and have very little, indeed, to spend on amusements. And so, alone or in company, they turn to the cheap cigarette, finding in it something at least to deaden the craving for more exciting pleasure. The low price, too, of the cigarette accounts largely for the increase of smoking among factory and servant girls. Thanks to exquisitely ingenious mechanism, by which one cigarette-making machine can do as much in a day as one hundred and fifty girls could turn out, and can produce five hundred finished cigarettes a minute, these are now within reach, not only of the man in the street, but also the boy, who begins, to puff them while still in the infant classes at school. His small sister tries them also. The West End shop-girls 'living in,' on the other hand, scarcely ever smoke, probably because indoors it would be absolutely forbidden, and outside custom is still strong against it. Most convincing proof, however of all, that smoking is on the increase among the sex, is that the great wholesale manufacturers are beginning to find it necessary to cater especially for female demands. Women, when they smoke for their enjoyment and not merely to puff a cigarette because it is Bohemian and daring to do so, have remarkably fastidious palates, and in the high-class West End shops demand the most delicate and refined cigarettes, when they do not call for cigars."—*N. Y. Med. Rec.*

Permanent Blindness not due to Belladonna—a Physician wins his Case.

THE effect of belladonna upon the human vision was considered in a libel suit which has recently been reviewed by the Appellate Division of the Supreme Court at Albany, New York The plaintiff in the action was a physician who treated the defendant's daughter for some ailment of the eyes, and in the course of the treatment administered belladonna. The girl subsequently became blind, and her father attributed the loss of her eyesight to the unskilfulness of the plaintiff and his ignorance in giving her belladonna, and thus producing her blindness. The doctor sued him for libel for publishing statements of this purport, and upon the trial a material inquiry was what were the actual effects of administering belladonna in like cases. Every medical witness testified that belladonna would not, and indeed, could not cause blindness in any person. They all agreed that the drug produced a dilation of the pupil, accompanied by a partial loss of vision, but that this was only temporary and the effect would gradually pass away. The proof on this point was so clear and conclusive as to leave no doubt in the mind of the Appellate Court that the unhappy father was mistaken in holding the doctor responsible for the misfortune of his child.—*Med. News*

THERAPEUTICS AND PHARMACOLOGY.

Wet Sheet in Pneumonia.

"THE most striking example that I ever saw of the use of cold was in the case of a patient suffering from pneumonia, who was dying from hyperpyrexia without anyone knowing it, for it was before the days of clinical thermometers in this country. The patient was under the care of the late Professor J. HUGHES BENNETT, whose boast it was that he had never lost a case of uncomplicated pneumonia since the time that he discarded the old system of blood-letting and began that of simply supporting the patient's strength. One day, on going round, he was a good deal disgusted to find that one of his patients suffering from double pneumonia was apparently about to spoil his statistics by dying. The man was completely comatose, and apparently moribund. It seemed as if nothing could possibly be done to help him; and Professor BENNETT was passing on to the next bed, when a Swedish doctor, named SCOLBERG, who happened to be attending BENNETT'S clinic, said to the Professor, May I treat the patient, Professor BENNETT?' 'You can do what you like with him, was the answer. Forthwith SCOLBERG ordered in a big tub of cold water. All the bed clothes were pulled off, a wet sheet was dipped in the water, and the patient was wrapped in it. In a few minutes it was taken off and a second cold sheet applied. How long this went on I do not know, because, like all the rest who were watching the process, I thought that it was useless, and I went away to have my lunch. On going back about an hour afterwards, simply from curiosity to see whether the man was dead or not, I was greatly astonished, instead of finding an empty bed, as I expected, to see the patient lying quiet and comfortable, apparently in an easy slumber, and he went on from that time forward without a bad symptom, and recovered perfectly in due course. So a wet sheet simply wrung out of cold water, put upon the patient for a short time, taken off again, dipped again, and frequently renewed, tends to bring down the patient's temperature."—*Practitioner.*

Treatment of Chronic Constipation by Creosote.

CREOSOTE, according to HOLSTEIN, is an excellent remedy for chronic constipation if given in doses of 7 or 8 drops immediately after lunch and dinner, in a glass of milk, beer, wine, or water As the dose which is necessary to relieve constipation is different for different persons, it is well to commence with a single drop and to increase the amount by one drop daily, until the required dose is ascertained. Creosote, when administered in this way for several months, will not only relieve chronic constipation but will bring back the appetite, improve the general condition, and clear up the skin. Under its influence the stools become regular, soft and abundant, and are not accompanied by any pain or any sign of intestinal irritation. The drug is supposed to act by neutralising an intestinal toxin which in chronic constipation paralyses the intestine.—*Med. News.*

Captol or Tannic-Chloral in Seborrhœa Capitis.

A TWO PER CENT alcoholic solution of this drug, which combines the secrete inhibitory effects of tannin with the antiparasitic action of chloral, was added to water by J. EICHHOFF and used night and morning with excellent results in seborrhœa capitis. The scabs disappeared in 8 to 14 days, the gland secretion stopped and the hair daily fell less and less until the fall was finally arrested.—*Deutsch Med. Woch.*

For Pustured Papulæ.

℞ Mat. kamerin ... ... ʒiv. ss.
Ol. amygdalæ expres ... ... ʒiv.
Ol. theobrom ... ... q. s. ad. ʒi.
M. Sig. For external use.

For Freckles.

℞ Caprl oleat ... ... gr. vi—xv.
Lanolini } aa ... ... ʒss.
Vaselini }
M. Sig. For external use.

For Intercostal Neuralgia.

℞ Chloral hydrat. }
Camphoræ } aa .. ... ʒii.
Menthol }
M. Sig. Paint over painful areas.

For Asthma.

℞ Morph. sulph. ... ... gr. ¼—½
Strych. sulph. .. ... gr. $\frac{1}{60}$
Hyoscin. hydrobrom. ... ... gr. $\frac{1}{100}$
M. Sig. To be given hypodermically at bed-time.

Repeated two or three nights in succession, this may suffice to overcome the attacks It is hardly necessary to add that it must be cautiously used.—*Med. News.*

Violet Water.

Ionone ...	...	30 drops.
Distilled water	...	5oz.
Orange-flower	...	1oz.
Rose-water	..	1oz.
Rectified spirit	...	8oz.

Add the ionone to the alcohol and add the waters. Let stand and filter.—*Merck's Report.*

Violet Sachet Powder.

Florentine orris	...	6oz.
Benzoin ...	...	2oz.
Ess oil of almonds	...	2min.
Ionone ...	...	30min.

Put up in sachet-powder envelopes, with a layer of absorbent cotton to fit the envelope.—*Merck's Report.*

Corrosive Sublimate Adhesive Plaster.

L. ADRIAN gives this formula :—

℞ Corrosive sublimate	...	2 parts.
Alcohol	...	10 ,,
Castor oil	...	15 ,,
Adhesive plaster	...	100 ,,

Melt plaster, dissolve the corrosive sublimate in the alcohol, add the castor oil to the solution, and then pour the mixture into the melted plaster.—*Jour. de Med. de Paris.*

"Par Excellence" Hair Restorer.

Tincture of cantharides	...	½oz.
Tincture of cinchona	...	1oz.
Glycerine ...	...	½oz.
Rectified spirit	...	5oz.
Oil of Cologne	...	½ dr.
Water to make	...	16oz.

Allow to stand over-night and then filter clear through paper.

Tooth Powder.

Cretæ præcip ...	...	ʒxij.
Mag. carb. pond.	...	ʒiv.
Pulv. saponis ...	...	ʒij.
Resin	...	q. s.
Otto rose	...	℥x.

A few grains of resin are dissolved in a little water, and a sufficiency added to give the color desired.

Correspondence.

THE PRESENT SITUATION OF THE C. D. ACTS QUESTION.

To the Editor, "Indian Medical Record."

Sir,—It is no easy matter to say what are the present and immediate intentions of the Government of India on this most important question. If we were to review what had been attempted and carried out up till 1892 or 1893, and if we had to write the history of the Regulations for the previous thirty years, we would have to repeat much that has already appeared in these columns from time to time. We have all along contended that a study of the records supplied by Government itself and a careful reading of the instructions issued on this subject must lead the medical mind to regard the efficacy of these Regulations, on purely medical grounds, as extremely doubtful, to say the least of it. We never come across the note of medical success, and there is no single year's figures which unmistakeably tell us that substantial progress has been made. And when we embrace in our investigation a succession of years, we are reluctantly compelled to confess that the medical stratagem tightened up and amended, as it has been year after year, reveals a steady advance of venereal diseases. We use the word reluctantly in this connection, for we have no desire to rejoice over any such increase among the soldiers. If the Regulations had been put forward as a purely temporary measure, a stop-gap, until some measure resting on a firmer foundation—medical, political and ethical—had been sought out and elaborated, then until such a measure had been formulated we would have been pleased to have seen some temporary alleviation of those diseases. Just as we have regretfully to see martial law enforced for a brief period, while red ruin stalks abroad, but only for the briefest of periods and to be recalled as quickly as possible, so for a brief period if the case for so vile a measure as the *C. D.* "*Regulations*" could be proved, we might endure it. But we would be equally insistent on its speedy removal to give place to some measure more worthy of our high profession and the high civilization we represent.

The "*Regulations*" were and are opposed to the highest political spirit of our laws. Mr. Herbert Spencer in his "Study of Sociology" thus alludes to them: "A popular Government has established, without the slightest hindrance, an official organization which treats with contempt the essential principles of constitutional rule." And later on he adds:—"This Bill which even had there been some urgent need (which we have seen there was not) for dispensing with precautions against injustice, should, at any rate, have been passed only after full debate and anxious criticism, was passed with every effort to maintain secrecy, on the pretext that decency forbade discussion of it; while Mordaunt cases and the like, were being reported with a fulness proportionate to the amount of objectionable details they brought out!"

Thus we see that the "*Regulations*" are hostile to the spirit of the English constitution itself. They are not extraordinary measures. Their course has been a protracted one, and they must be weighed, not in the light of a manufactured panic depending on rash manipulation of figures, but as embodied in the laws of our land. As such, if they are to gain a permanent place in our laws again, it will never be in the stealthy and underhand manner in which they were first inserted. Any hysterical wail, startling for a time a people not alive to the whole consequences of their action, will not be sufficient to justify them, but it will be necessary for them to meet the closest criticism, and to show that they have something in harmony with the liberty and justice which are the boast and bulwark of our British constitution.

Some one has written that our race is suffering from a fatal paralysis of the sense of justice, and we could have no better example of this than the C. D. Regulations.

In defence of these "*Regulations*," a plea for the justice of them rests on the theory that in India the prostitute class is an hereditary caste, the members of which have always been and always will be prostitutes. We do not admit that even if this were true, our attitude towards the Regulations should be altered. If for the above reason the Regulations are justified in India, all that would be needful to justify their enforcement in England would be the transportation of companies of women of the prostitute caste to that country. But an easy answer to the above plea is found in this; that the prostitute caste or class is largely recruited from the outside, and is not sustained and propogated by natural increase from births within the caste. It is surprising that medical men versed in the ultimate results of immorality on offspring, would be found expressing such an opinion.

While we have from personal enquiry found that many who have joined this caste have drifted into it as the last resort of the outcast, and that such are drawn from other castes, both Hindoo and Mussalman, we quote from a pamphlet which publishes the result of a systematic enquiry on this very point. The enquiries were made *inside* the *chaklas*. We cite seven cases:—

(I). An orphan.

(II). A young girl sold by her own brother to the *chakla*.

(III). A Kashmiri, ill-treated by her husband, ran off with another man and sold into shame.

(IV). A high-caste Brahmin girl found starving and enticed into the *chakla*.

(V). A girl taken by a sepoy and sold at 11 years of age to sit in the *chakla*.

(VI). Beaten by her husband; at age of fourteen ran away; seized by policeman, &c.

(VII). Deserted by her husband; a Britisher took her to his bungalow and after that, the *chakla*. The seventh represents the history of many.

The *chaklas* have to be reinforced from without from time to time or the caste itself would die out. So we see that after all the *chakla* or brothel in India is not filled by any hereditary caste, although on joining such, the dress of the Mussalman and the religion of the caste which they have joined, are conformed to. It is filled by the victimized, the deserted, the deluded and the helpless. A convenient way for a Britisher to get rid of his victim when he has grown tired of her or has to leave the district, is to consign her to such a place; and indeed however much he might wish to be kind, such a place is the usual end of an out-casted woman.

There have not been wanting many who loudly have advocated the above plea, one which neither on *à priori* or *à posteriori* grounds can be sustained.

Again, we must touch for a little on the statistics question, for the bounding on of Government by a select company is based chiefly on the arguments derived from a study of figures. Instead of discussing afresh Indian statistics, let us turn to the history of the Burmese Station of Thayetmyo, and let us follow the Government Blue Books on the subject. We quote from the *Army and Navy Gazette* of 9th April :—"Admissions, 127·5..... The low rate is attributed to the general absence of prostitution among the Burmese." (Sanitary Measures 1867-68, page 59). In 1871 disease had been doubled, "notwithstanding the introduction of rules for the registration of women." (Sanitary Measures 1871-72, page 131). A year or two later, Thayetmyo figures again among stations unfavorably reported on. In 1880-81 admissions in British Burma are 306 per 1,000. Report after report is a chorus of bitter complaint from disappointed officials. Of course, there is always something to blame. The police are ineffective, the women have learnt, somebody is languid in carrying out the measures, they must be pushed with enthusiasm, then they will succeed. Only they never have succeeded.

"The only thing Colonel WYNNE himself can claim for them (the Regulations) is that when they were withdrawn, things were worse..... .....Impose the system and you perhaps gain a momentary improvement by detecting and checking a certain amount of disease, but you demoralise your men and increase the amount of vice, because one recommends it to another as safe and improved. Then suddenly close your hospitals (by way of experiment or otherwise) and stop the measures on which the men have come to rely, substituting for them no other measures of protection, no restrictions on the men themselves, no attempt to create an alteration in their views and habits, and what can you expect? I say you must expect an increase of disease, and a very sharp one at first. But you may expect it to become less marked from year to year, till as the reliance on a partly illusory protection, and the demoralisation produced by the disgusting details of the system, die out—and in proportion as active measures are taken for improvement of another kind—you may expect it to give way to a decrease, slow, perhaps, but in its nature progressive and permanent; though we must still allow something for those extraneous causes, which we ought now to be investigating scientifically, instead of blindly recurring to a system, which never was anything but a leaky vessel, and which ended by landing us where we are now."

The proof of the above is seen by studying the figures say of 1894, 1895, and 1896. There the increase of 1894 gave way to a decrease in 1896.

And he would be but a sorry specimen of the medical profession who would venture to sustain the theory that the variation is dependent simply on Regulations. As far back as 1866, we find in four stations the numbers 402 per 1,000 and in 3 stations the admissions are 548 per 1,000, and in all the stations Regulations in force.

In an article on "Les Maladies Vénériennes dans les Armées Anglaise, Française et Russe," Dr. COMMENGE points out the great diversities in the numbers afflicted with venereal in different countries and in different districts, and admits that the prevalence of disease in the French army is closely in proportion, not to Regulation, but "to the laxity of morals and the development of clandestine prostitution." *La Prensa* of 26th March, in an article denouncing Regulation, remarks that it is just when throughout the greater part of Europe the system is tending to disappear, without prejudice to the public health, that its advocates make use of the fragments of reports and garbled statistics employed by Lord GEORGE HAMILTON and certain court ladies to secure a renewal of it.

Surely it is time that deep and serious thought be given both to the figures and to every aspect of this great sex subject.

Again, in India, we are face to face at the present time with the open expressed desire of many to bring in the Regulation of Vice. In the recent movement, two features were added new in themselves and innocent enough, nay plausible, with the view of gilding the pill of Regulation. We hold advisedly and can prove easily that Regulation—and Regulation alone—is the concern of most of those who have tried to promote the re-introduction of cantonment rules.

One of the correctives prescribed with the Regulation prescription was,—"Moral influence." The speech of the Lieutenant-Governor of the Punjab proves this :—"The splendid temperance movement affords precedence for what may be done in other moral directions, and the grand appeal of the Commander-in-Chief to the soldier himself, &c." Up to the present time, while by orders from Simla the periodical examination of women may be resuscitated at any moment, the Simla compounders have left out the corrective from the mixture. Nor are we surprised at this, for a skilful compounder would inform the prescriber that the two were incompatible.

The second feature added by the promoters is for the benefit of those in far away England. It gives the Regulation mixture a nice color. But the nice color can hardly deceive those in India.

In Circular No. 54650 from Government of India, dated Simla, 20th November 1897, under 4 we read :—"The Governor-General in Council is of opinion that venereal diseases should, as far as possible, be dealt with on the same lines as other infectious and contagious diseases."

So also in Appendix, dated Simla, 3rd May 1895, we find "cholera, small-pox, diphtheria or typhoid fever" slumped together as one.

One only requires to analyse the rules to see that the treatment and Regulation are aimed only at venereal diseases, and it is well known that this packing of venereal and non-venereal together took place when in 1889 the Regulations had to be repealed; and it was under this fraudulent cloak that the Regulations were practically carried on until 1892. Our readers need hardly be reminded that in such diseases as typhoid and diphtheria there are practically no regulations or legislation controlling it in bazaars, and indeed that up to a recent date the presence of typhoid in native bazaars was by some denied. But the point is this that the ultimate aim of the new Regulations is the periodical examination of women. Without going into a full detailed criticism of

the 20th September, 1897. Clearly, the following will suffice :—"Medical officers may make arrangements to carry out from time to time the examination of women who voluntarily present themselves."

We are, however, glad to note that from the office of the Quartermaster-General in India, the following *prohibitions* have been issued :—

(a). Prostitutes accompanying regiments or detachments on the line of march and to standing camps.

(b). Prostitutes occupying buildings which are either the property of Government or of the Cantonment authorities.

(c). Persons holding any office or appointment under the Cantonment authority owning or receiving the rents of buildings occupied by prostitutes. While such measures are of benefit, all such measures will prove of no avail to stem the flood of vice which will continue to rise with the re-enforcement of any Regulation measures, and no Saech Act or moral corrective will counteract the poison and demoralisation contained in the very heart of them Regulation can only flourish amidst demoralisation. Thus we can never be other than opposed to a system of which the hygienic perfecting for both sexes has been delared to be utterly impossible. And if possible, it would infer such a quagmire of filth that thinking men would shudder at the thought of what would become of future generations nurtured in so abhorrent and debasing an environment.

As medical men, it is our solemn duty to defend true sex-relationship on which alone any social order can be rightly built, and to oppose any erroneous and unhealthy movement which destroying or weakening the true meaning of sex would transform our nation into a race of Satyrs.

Yours &c., WM. HUNTLY, M A, M.D, B SC

NUSSEERABAD.

———.o:———

THE VENEREAL DISEASE QUESTION.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—As Dr. WM. HUNTLY has been kind enough to notice and reply to my letter in your issue of 1st June, I trust that you will permit me to say a few more words on this subject.

Dr. HUNTLY says that he has little hope of convincing me, and in this he is right; for while I have every sympathy with, and admire, the position he takes up, from a practical point of view I can see nothing in his arguments or in the arguments of those who agree with him, which can by any stretch of the imagination be called convincing. I am quite open to conviction by argument, but not by invective or by the cool assumption that God is upon his side, which latter was, by the way, the grand excuse for the iniquities of the Spanish Inquisition, and is the fundamental article of belief with fanatics all the world over.

Dr. HUNTLY's object as well as mine is the prevention of venereal disease, I think we are also agreed that prevention is easier than cure, as far as I can see, we only differ as to the means that are to be employed; and while he is altogether for moral suasion, and the purifying of human nature, I am for force and legal intervention.

Now in favor of my general argument I can adduce the great decrease there has been in England in almost all the infectious diseases since notification and isolation were made compulsory by law, and it is a curious thing that the two infectious diseases, which now cause the highest mortality, viz., measles and whooping cough, do not come under the law.

Legal compulsion has, in every country where it has been put in force, lowered the death-rate from infectious and contagious diseases. It will, in the future, without a doubt, do the same for venereal diseases.

Can Dr. HUNTLY give me a single case where his methods have been tried and proved successful?

I do not hold a brief for the old C. D. Act, nor for the present Act, if these Acts did not perform all that was expected of them; it was, and will be, largely due to faults in their construction and working, for some of which Dr. HUNTLY's friends are responsible; their method is in the first place to prevent the Government framing a perfect measure, and then to find fault with the measure because it is not perfect. It does not follow because the old C. D. Act was not perfectly successful that no other Act can succeed.

Dr. HUNTLY's position appears to me to be a policy of doing nothing, and in my opinion is neither more nor less than encouraging the importation of venereal disease into England.

I regret that through an error I was made to say that some 8,000 cases of venereal diseases are imported every year from India to England, the figures should have been 800, but like Dr. HUNTLY, I do not attach any great importance to the figures, the fact is admitted on all sides that a large amount of disease is imported.

The number invalided in 1896 was 475, but close on 13,849 men went home either on relief or time expired, and we may presume that some of these took disease with them.

When I said that soldiers are treated far more carefully than the same class in civil life, I said exactly what I meant, as long as they are in the service they are treated properly; it is after they leave the army that they become a source of danger to the civil population at home.

Dr. HUNTLY in his usual reckless way endeavours to throw mud at army medical men on the slender grounds that every case of venereal in the army is not perfectly cured; the State, however, does not engage to keep men in the army until they are cured. As soon as a man is unfit for the duties of a soldier, he is discharged, and time-expired men go when their time is up.

We are all agreed that venereal diseases are very liable to relapse and are very difficult to cure, which only brings us back to the preferable method of prevention again.

I ventured to quote two pithy sentences, which give briefly the conclusions of a French writer of large experience on this subject, they go to prove that legislation has the power of checking the worst forms of venereal disease. Dr. HUNTLY calls these sentences "*feeble*," but I cannot see the applicability of this adjective.

My criticism of the statement that "it lies to a large extent within the power of the individual to avoid infection" is perfectly fair, and is avoided entirely by Dr. HUNTLY, but the reader can judge for himself this is what the

memorial says :—" *We would indicate the following practical points, which appear to render it impossible to class venereal diseases with other infectious and contagious illnesses, for purposes either of prophylaxis, segregation or treatment.*" (a) *With respect to venereal disease, it lies to a large extent within the power of the individual to avoid infection.*" This is a general statement, and must be taken as such, to maintain that it refers to the soldier only is futile.

As the above is the only instance in which Dr. HUNTLY tries to refute my criticisms of the "Ridiculous Memorial," it is worthy of note as an example of his methods. Dr. HUNTLY says that C. D. Acts cannot prevent crime, but he forgets that they were never framed with this object.

He quotes Lord LISTER to the effect that "it is the fact of prostitution * * * * on which the authorities must proceed." Well, is not this the very ground upon which the Government is proceeding?

Does Dr HUNTLY seriously think that periodical examination of the class of Indian prostitutes is a hardship, and that it involves the gravest moral consequences to the individual?

Does he maintain that the preferable course is to leave them to rot with disease, without any means of cure or alleviation?

He misses my point when I alluded to the dissemination of anti-C. D. literature amongst young girls and innocent persons. I raised no objection to these individuals being educated upon this subject, what I meant was that they were used by unscrupulous people to put their names to memorials of whose contents they were utterly ignorant. I remember on a previous occasion, hearing a young girl ask a medical man in a crowded drawing room what he thought of the C. D. Act. She would hardly have done so had she understood the subject, yet her's was one of the signatures to a large memorial.

Does Dr. HUNTLY argue that, because "medical men go to Regulation countries to study venereal diseases" there is more venereal in such countries I do not draw the same conclusion; it is simply because these diseases are under better control.

But enough. I have every admiration for Dr. HUNTLY's views in the abstract My only difference with him is that they are impracticable.

Yours &c, A MEDICAL MAN

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GOVERNMENT DOCTORS AND PRIVATE MEDICAL PRACTICE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The following article appeared in the *Morning Post* of the 11th June, and will, I know, be read with intense interest by the thousands of medical and non-medical readers of the *Record*. Here is the article :—

"THE INDIAN DOCTOR."

"The memorial of the Indian Medical Association to the Government of India, which we published the other day, is an exact counterpart of an article which appeared in the *Morning Post* some two months ago entitled "Where Economy Lies." The contention we raised at the time is precisely what the Calcutta Association is now raising, namely, that "the public needs of the inhabitants of large Indian cities, more specially provincial capitals and hill stations, have materially altered during the past ten years, and that in all these centres there is a sufficiency of British medical practitioners, as well as highly-trained and fully-qualified Indian graduates of medicine, to supply the needs of the public, both European and Indian, and that, therefore, the time for withdrawing the privilege of private practice to State-paid doctors has unquestionably arrived." Our article apparently escaped the attention of the medical men, especially those of Mussoorie, whose cause it espoused, or, perhaps, they were waiting for a responsive echo from Allahabad, in which case we can assure them that they will have to wait in vain. So far as we are concerned, however, it does not matter in the least whether Mussoorie looks down-country or up-country for support, because our main purpose in raising the question was to benefit not a particular body of professionals, but the public generally. The financial prospects of the country were then being discussed in the Viceregal Council, and SIR JAMES WESTLAND, though outwardly full of assurance, gave occasional indications of his anxiety over making two ends meet. We pointed out that an increase of revenue, however probable, had many elements of uncertainty about it, and that the only way to make expenditure and income balance was to curtail the former. It is easier to make suggestions than to put them into execution, and we admit that it is not always clear where the pruning knife can be conveniently applied. But for all that economy is possible, and in the Indian Medical Service we have certainly a good field for experiment. We know of no valid reason why a country, which can support its own tradesmen and schoolmasters, its own chemists and lawyers, should be so hopelessly unable to find employment for doctors. The very fact that private medical men are now to be found in almost every big station in India clearly indicates that there is work for them, though the conditions of service may not be entirely in their favor. It is in the power of the Government to readjust a policy which may have been defensible years ago, but which is now entirely out of place in the present circumstances of the country. It is unnecessary to repeat our first article, but we may notice some of the objections which have been raised to the abolition of our big Civil Surgeoncies. One is that all Government servants are entitled to the services of an official practitioner, either free or at reduced rates, and they insist upon having the best men available—a very dog-in-the-manger objection at best. There is no reason to suppose that private doctors would necessarily be bad any more than that Government ones will be good; as we said before, all Civil Surgeons are not clever while some are decidedly the reverse. Nor need we fear that Government servants will have to pay more because the competition for patients in every large city will be sufficiently keen to keep fees within reasonable limits. Besides there is no reason whatever why any particular class of people should be pampered in their demands for this, that, or the other thing. The man who enters Government service now will be equally willing to do so whether he gets free medical attendance or not, so great is the struggle for existence. The same argument

applied to the general objection—that if private practice were prohibited an inferior class of men would enter the Indian Medical Service. Would they? Given, a fair prospect in life, and we are positively certain there would be no deterioration in the existing personnel. Any unprejudiced individual looking at the conditions of modern life must acknowledge that very few men are in a position now-a-days to decline half a loaf because they cannot get the whole. When London M. D's. are content to act as club doctors, it is inconceivable that their sons will refuse the assured prospects of an official career in India simply because some perquisites have been withdrawn from it. The man who shook the pagoda tree in years gone by would probably have laughed at the idea that their better educated descendants would be perfectly happy under less fortunate conditions, and it is quite likely that the generation to come will regard us with the envy as we do the one that is past, and withal be content.

"Yet a third objection, which was made to us privately by a medical friend, is that the conditions under which we hold India are such that any reduction in the numerical strength of the Indian Medical Service would be fatal from the point of view of public exigency. That there is some force in the objection at first sight we admit, but it should be borne in mind that as British rule in India grows in years its military aspect must diminish, as civil power tends to increase. We are not thinking of riots and mobs which concern the police more than the military, and which cannot possibly affect a technical discussion such as this, even though their frequent occurrence should serve to remind us of the want of cordial relations between the rulers and ruled. It is to the chances of real war breaking out that the objection specially referred. The obligation of the Civil Surgeon to revert to military duty whenever occasion arises would not, of course, hold with the private doctor, and this might seem a serious objection to his recognition by the Government. It would, however, only apply in the case of a large reduction in the Indian Medical Service, and not to the experimental measure we advanced, which was to abolish Civil Surgeoncies only in the large cities of India. The Indian Medical Association does not go so far as this, for while claiming more work for the private practitioner, it leaves the Civil Surgeon precisely where he is. It seems to us, however, that if the medical administration of a district which nowhere is very onerous, can be conveniently delegated to the skilled members of the Subordinate Medical Service, it would be absurd to allow the dim shadow of a big war to interfere with an experiment from which much good might be gained; neither can we imagine that the abolition of, say, a dozen appointments will materially endanger the military needs of the country or diminish the efficiency of its war footing. Clearly the Indian Medical Association does not go far enough Our object was to find an opening for those Anglo-Indian youths whose parents, while quite prepared to give them the best available medical training to be had in India, are yet unable to send them to England. Whether they can be utilised in the place of some of the men who now come out from home is surely well worth an intelligent trial."

Yours, &c., M. D.

Mussoorie, *14th June 1898.*

:o:

HIGHLY PLACED ANGLO-INDIAN MEDICOS.

To the Editor, "Indian Medical Record."

Sir,—Your issue of the 1st June 1898, "L. M. & S. (Madras)" has omitted from his list a few other "Anglo-Indian Medicos" who have taken high places.

Dr. R. T. Tochek, B.A., formerly of the I. S. M. D., now practising in Rangoon, has British diplomas.

Dr. G. Goupolis, M.D. of the I. S. M. D., Civil Surgeon in Bhavra.

Dr. Robert Carroll, L.M.S. formerly of the I. S. M. D., now Medical Storekeeper to H. H. the Nizam and Lecturer in the Nizam's Medical School.

Dr. Evans, formerly of the I. S. M. D., now Surgeon on the West Coast of Africa, has high British diplomas.

And among your several lists I have not seen the name of Surgeon-Major R. R. Whitwell, M.B. (Bengal), who hails from Madras, and received part of his medical education there, brother to the late lamented Surgeon-Major Hasay Whitwell (Bengal), formerly of the Madras I. S. M. D.

Yours &c., Civil Surgeon.

:o:

THERMOMETERS. WHY DOES MINE GO WRONG?

To the "Editor, Indian Medical Record."

Sir,—When I was going to take the temperature of a patient of mine with fever, I found the clinical thermometer, when taken out of my own pocket, read 102°. Before applying it to the patient I placed the bulb in cold water and set the temperature at 0. Just as I was going to place it in the patient's axilla it again rose to 102°. It was therefore useless to try the same process over and over again. Will you kindly tell me what to do on such occasions? I have seen this occur before too.

Yours &c., Jaikishan Das, L.M.S.

Assistant Surgeon, Sonepat.

Sonepat, *7th June 1898.*

Book Reviews & Medical Trade Notices.

FIFTY-FOUR CONSECUTIVE OVARIOTOMIES WITH FIFTY-THREE RECOVERIES.

By A. C. Butler Smythe, F.R.C.S., F.R.C.P.

Senior Surgeon to the Grosvenor Hospital for Women and Children, London, and to the Samaritan Free Hospital for Women and Children, London.

(Publishers: J. and A. Churchill, London).

This record of 54 ovariotomies affords very interesting reading of remarkably successful abdominal surgery The fourth case died, but it was one in which septic changes in an ovarian cyst had already done their work of desperately hazarding life. After this case, there is a run of 50 absolute successes. A careful perusal of the clinical features of all the cases proves that there has been no attempt at sifting, but that each patient was allowed to take her chance of life, when once it was decided that an operation would do her good. To surgeons in India this measure of success is extremely enviable and most extraordinary. Hence a few details concerning Dr. Butler Smythe's methods will not be out of place. Most of the operations were performed in the Grosvenor and Samaritan Hospitals in London, and some in private houses. Dr. Butler Smythe attributes his success to surgical asepsis, rather than to anti-sepsis. The older methods of carbolic sprays, medicaments, the sealing of wounds by carbolic putty, the toilet of the peritoneum by means of sponges impregnated with carbolic acid, the great masses of carbolic and other medicinal gauzes, have all been laid aside as irritating and unnecessary. He says, "aseptic surgery has proved beyond dispute that perfect cleanliness, before "at and after, an operation, is the great essential for the welfare of the patient." Dr. Smythe prefers 9 A.M. as the *hour* for operating."

The *room* should be well lighted, scrupulously clean, and far removed from water closets and bath-rooms. It should contain two beds, a cupboard, wash-stand, two tables and two chairs. It should be fumigated with sulphur fumes just prior to the operation. No eatables should be kept in the room.

She should have some experience of abdominal work, if possible. She should be efficient in the use of the sphygmo, and understand rectal feeding and the use of enemata. She should know how to take brief clinical notes, and she should above all things be implicitly obedient and trustworthy.

The *preparation of the patient* is important As a rule, she is kept under observation for a few days, special attention being paid to the state of her bowels, kidneys and skin and all errors corrected. Her diet is unstimulating and she is allowed to be calm and quiet for a few days. The bowels are cleared by an aperient a day before the operation, and on the morning of the operation an enema is given. Only a small cup of strong beef tea is allowed four hours before the anæsthetic, and if there is much debility, a little brandy and water is permitted. The bladder is emptied by a catheter. A light night dress and warm stockings are to be worn.

The operator should trust no one but himself with the scrupulous care of his *instruments and sponges*. He should have all he requires by his side, and he should make a written note of everything he is going to make use of.

For an ovariotomy one needs fifteen sponges, (two flat six large, six small, and one for the hands). There should be at least two dozen Spencer Well's forceps. When the operation is finished, the sponges and instruments ought to be checked, while the nurse counts them out aloud.

This thoroughly practical operative experience is worth close and attentive perusal, and will serve as a very useful help to surgeons who are keen on practising abdominal surgery in India.

URDU HAND BOOK FOR MIDWIVES

By Miss E. M. Brown, M D

This excellent little manual ought to prove a most useful and opportune prize to native midwives or *dhais*, for whom it is expressly written The need for such a guide is and has been keenly felt in India, both in the women's hospitals where this useful class of trained nurses are educated, and also among the greater army of untrained Of course neither of these classes will be aided by this book, save through the instrumentality of native teachers who can read English and are accustomed to read Urdu in Roman character We congratulate Miss Dr. Brown on her successful output of this useful little book, and would strongly advise its translation into the real vernaculars of India, as it possesses all the merits of a very trustworthy hand-book for midwifery nurses and is well illustrated. We note the diagrams have been taken from Dr Fancourt Barnes' Manual for Midwives by his permission.

The book may be had from the Mission Press, Ludhiana, Punjab

DISEASES OF WOMEN.

By J C. Webster, B A, M D, I R C P

Demonstrator of Gynecology, McGill University, Montreal, Canada

(Publishers Young J Pentland, Edinburgh)

Gynecology has been enriched by the publication of this work It is a concise, practical, up-to-date monograph, profusely illustrated and very well got up.

THE PASTEUR (CHAMBERLAND) FILTER.

What the Battle of Atbara was won on.

Statement by Lord Cromer.

Daily News, April 16th, 1898.

The annual meeting of the Society for the Study of Inebriety was held on Thursday afternoon in the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, Dr. Norman Kerr, the President, in the chair.

Lady Elizabeth Biddulph told the story of a fact which had not yet appeared in the press, namely the splendid victory won by our troops on Good Friday morning at Atbara. She was in Cairo at the time that our soldiers left for the Atbara camps All on a sudden there was a whisper went round among the wives and other friends of the military men to the effect that the Sirdar (Sir Herbert Kitchener) had sent back all the beer that had been ordered to the front with the soldiers. Being a supporter of the cause of temperance, she was naturally interested in this move, and on making inquiries ascertained that, as far as possible, all intoxicants were to be excluded during the campaign. In a conversation which she had with Lord Cromer on the subject, he said that if beer was allowed in the camp, he was afraid there might not be as much work done. "But what about the Nile-water?" she asked.

"We Have Pasteur Filters in the Camp,"

was the reply, "and plenty of good tea and coffee, which you will find our troops will be able to fight on." They had fought, and what was the result? A great temperance as well as a great and brilliant military victory. (Applause.)

Sole Agents for India Heatley & Gresham, Ld.

STEARN'S HÆMOFERRUM.

As a food hæmoferrum is far richer in proteid matter and iron than the finest brands of beef juice on the market. Owing to its digestibility and the readiness with which it is absorbed, it is of special value in cases where the digestive organs are enfeebled and the problem is to give food A small amount of readily absorbed and easily assimilated food taken at the right time is a more powerful restorative agent than a whole meal of undigested material which only adds to the mischief by its fermentation and formation of toxines

It should be borne in mind that the effects of iron differ according to the dosage Hæmoferrum has great advantages on account of the ease with which the dosage may be regulated.

Government Medical Gazettes.

GOVERNMENT OF INDIA.

The services of the undermentioned officers are replaced at the disposal of the Govt of Punjab from dates on which they respectively assumed charge of their duties —Surgn.-Capt. H. Smith, M.D., M C, I M S. (Beng.); Surgn.-Capt. G. Y. C. Hunter, I M S. (Beng)

Surgn Lieut.-Col G Bomford, M.D., I.M.S. (Beng.), Principal, Med. Coll, Calcutta, and *ex-officio* First Physician, Med. Coll Hosp, is granted furlough (*p a*) out of India from the date on which he may avail himself of it.

The services of Lieut T. A. Kennedy, 2nd Battn, Royal Irish Rifles, are replaced at the disposal of the Mily, Dept., from date on which he made over charge of his duties under the Govt. of Bombay.

The services of Surgn.-Lieut.-Col. J. H. Warden, I.M.S. (Beng.), are replaced at the disposal of the Mily Dept. from date on which he makes over charge of his special duties.

The services of Surgn.-Maj. G H. Fink, I.M.S. (Beng.), are replaced at the disposal of Chief Commr. of Assam from the date on which he assumed charge of his duties.

The services of the undermentioned officers are replaced at the disposal of the Mily. Dept. from dates on which they respectively made over charge of their duties under the Govt. of Bombay :—

Capt. F. S Widdicombe, 16th Bom. Infy.
Lieut. V. G. Menzies, 8th Bom. Infy.

The services of Surgn.-Capt. C. J. Milne, M.B., C M., I.M.S. (Beng.), are placed temply. at the disposal of the Govt. of Bombay from date on which he may assume charge of his duties.

Surgn.-Col. W. P. Warburton, M.D., I.M.S. (Beng.), Inspr.-Genl. of Civil Hosps., N.-W.P. and Oudh, is granted privilege leave for 3 months and 21 days from 20th May 1898.

Brig.-Surgn.-Lieut.-Col. G. C Hall, M.R.C.S., I.M S. (Beng) Inspr.-Genl. of Prisons, N.-W.-P. and Oudh, is apptd. to offte. as Inspr.-Genl. of Civil Hosps., N.-W.-P. and Oudh, during the absence of Surgn.-Col W. P. Warburton M D, on privilege leave, or until further orders.

Surgn.-Lieut.-Col. F. A. Weir, M.B., I.M. (Beng.), Agency Surgn. in Baghelkhand, is granted furlough (*m.c.*) for six months, from 15th May 1898, or subsequent date on which he availed himself of the furlough.

The services of Hosp. Asst. Shiurakhan Lal, I.S.M.D. Beng. Estab., No. 18 (Himalaya) Survey Party, Simla, are tempy placed at the disposal of the Govt. of Punjab for inspn. duty.

Hosp. Asst. Pati Ram, Rai Bahadur, is placed in additional med. charge of No. 18 (Himalaya) Survey Party, Simla, *vice* Hosp Asst. Shiurakhan Lal, during the latter's absence.

The services of Surgn.-Capt. E. C. MacLeod, I M S. (Beng), are placed permanently at the disposal of the Chief Commr. of Assam from 11th Nov. 1897.

The services of the undermentioned officers are replaced at the disposal of the Mily. Dept. from the dates on which they respectively made over charge of their duties under the Govt of Bombay —Lieut F. S Walker, 22nd Bombay Infy, Lieut. B B Daunt, 22nd Bombay Infy.

BENGAL GOVERNMENT.

Surgn.-Major Narendra Prosunna Sinha, Civil Surgn of Puri, on return from mily duty, is appt. to be Civil Surgn of Rangpur, *vice* Surgn -Major F J Drury, transferred

Surgn -Lieut.-Col Kalipada Gupta, Civil Surgn of Backergunge, at present offg as Civil Surgn of Puri, is confirmed in the latter appt *vice* Surgn -Major Narendra Prosunno Sinha, transferred

Asst. Surgn P Fitzpatrick, Med Officer at the Sandheads, is allowed leave for six weeks, (*m c*) from 21st Dec 1897

Asst Surgn A. A Allison, Resdt. Med Officer, Eden Sanitarium, Darjeeling acted as Med Officer at the Sandheads during the absence, on leave of Mily Asst Surgn P Fitzpatrick, from 23rd Dec 1897 to 9th March 1898

Asst Surgn P Fitzpatrick, Med Officer at the Sandheads, is allowed leave for one year, in continuation of the leave sanctioned in Govt Notification of this date

Asst Surgn H G C Mills is allowed leave (*p a.*) from 1st to 30th July 1897

Asst. Surgn H G C Mills is apptd from 31st July 1897 to act at the Presy Genl Hosp., Calcutta, during the absence, on deputation, of Asst Surgn J Clarke

Asst Surgn J Clarke is apptd to act as Med. Officer at the Sandheads during the absence, on leave, of Asst. Surgn. P. Fitzpatrick, or until further orders

Surgn -Capt A H Nott, Civil Surgn of Hazaribagh, is allowed furlough for eighteen months, from 10th June 1898, or any subsequent date on which he may avail himself of it.

Surgn.-Capt. F. P Maynard, offg. Second Resdt Surgn., Presy. Genl. Hosp, Calcutta, is apptd to act as Civil Surgn. of Hazaribagh, during absence, on leave, of Surgn -Capt. A. H. Nott, or until further orders.

Asst. Surgn Nemai Churn Chatterjee, Bhagalpur Charitable Dispy, is transferred to med charge of Motihari Charitable Dispy., Champaran dist, *vice* Asst Surgn Jogendra Nath Ghosh, transferred to Bhagalpur Dispy

Asst. Surgn. Jogendra Nath Ghosh, Motihari Charitable Dispy., is transferred to med. charge of Bhagulpur Charitable Dispy., *vice* Nemai Churn Chatterjee, transferred to Motihari Dispy

PUNJAB GOVERNMENT.

Doctor Fatteh Chand made over charge of the duties of Supdt. Ludhiana Jail to Pandit Brij Nath, Extra Asst. Commr., 8th March 1898.

Surgn.-Maj. J. R. Adie made over charge of the duties of Supdt. Gujrat Jail to Asst. Surgn. Hardial Singh on 8th April 1898.

Pandit Brij Nath, Extra Asst. Commr, made over charge of the duties of Supdt. Ludhiana Jail to Dr. Fatteh Chand on 14th April 1898.

Surgn.-Capt. J. Mulvany made over charge of the duties of Supdt. Bannu Jail to Surgn.-Capt. F. R. Ozzard on 10th May 1898.

Surgn.-Capt. Ozzard assumed charge of civil med. duties of Bannu on 10th May 1898, relieving Surgn.-Capt. J. Mulvany.

Mily. Asst. Surgn. W. G. [illegible], on special plague duty, Jullundur dist., has obtained privilege leave of absence for one month, 28th April 1898.

On relinquishing charge of his special duties in connection with the plague in the Hoshiarpur dist., 9th May 1898, Surgn.-Maj. J. R. Adie resumed charge of civil med. duties of Gujrat dist. on 13th idem, relieving Asst. Surgn. Hardial Singh.

On his services being replaced at the disposal of the Govt. of Punjab, Surgn.-Capt. A. W T. Buist-Sparks is placed on special duty in connection with plague in the Jullundur dist. from 9th May 1898.

In anticipation of their services being replaced at the disposal of the Govt. of Punjab, the undermentioned Med. Officers are deputed on special duty in connection with plague, and reported themselves at Phagwara on dates noted opposite their names :—Surgn.-Capt H Smith, 6th May 1898; Surgn.-Capt. G. Y. C. Hunter, 7th May 1898.

On being relieved of his duties with No. 15 Survey Party, Baluchistan, Hosp Asst Ghulam Muhammad reported himself to Surgn -Capt. C H James, Plague Med Officer, Banga, Jullundur dist., for special plague duty on 16th April 1898

On return from leave granted to him by *Punjab Gazette*, Med. Dept. Notification of 15th Feb 1898, the services of Hosp. Asst Lock Nath were placed at the disposal of the Dir.-Genl I M S. for employment with No 15 Survey Party, Baluchistan, from 7th April 1898, *vice* Civil Hosp Asst. Ghulam Muhammad.

BOMBAY GOVERNMENT.

The services of Asst. Surgn G M Dixon, L M. & S, have been placed at the disposal of the Insptr.-Genl of Prisons, Bombay, from 7th May 1898

Surgn -Maj T P Barry, M B, was apptd to act as Supdt. Lunatic Asylum, Colaba, from 6th 30th April 1898, both days inclusive

The services of the following officers have been replaced at the disposal of the Govt of India from dates shown against their names —

Surgn -Lieut. A. Gwyther, M B, C M, 3rd May 1898

Surgn -Lieut W W. Clemesha, M B, B S, 10th May 1898

Asst Surgn Bhaidass Bhagubhai Mehta has been placed for duty under orders of the Health Officer of the Port of Bombay from 19th May 1898, forenoon.

CENTRAL PROVINCES GOVERNMENT

Furlough (*m.c*) for six months is granted to Surgn -Capt A G Hendley, a Civil Surgn of these Provinces, from 21st May last

On being relieved by Asst. Surgn J W. Hogan, Asst. Surgn. Mahdu Sudan Moitra, Offg Civil Surgn., Wardha, was ordered to take charge of the Colliery Hosp at Warora

On being relieved by Asst Surgn Madhu Sudan Moitra, Asst Surgn Gopal Chandra Ghose in charge of the Colliery Hosp at Warora, was directed to do duty under orders of Civil Surgn, Nagpur

Hosp Asst P Narsing Rao Mudaliar, doing duty under orders of Civil Surgn, Nagpur, is granted one month's leave without pay, from 21st May 1898

Hosp. Asst. Ram Datta held charge of Bijeragogarh Poorhouse, in addition to his own duties, from 27th Nov. 1896 to 11th Dec. 1897, both dates inclusive.

Hosp Asst Ram Krishna Paikaji, doing duty under orders of Civil Surgn, Hoshangabad, was ordered to do plague duty at Harda Ry. Stn from 14th to 20th April 1898, *vice* Hosp. Asst. Lakhshman Kesho, ordered to present himself for his Sept. Exam at Khandwa

N.-W P AND OUDH GOVERNMENT.

Surgn -Maj J. F. Tuohy, Civil Surgn, Saharanpur, furlough for two years from the date he avails himself of the same.

Surgn.-Maj. T. H. Sweeny, Civil Surgn., Benares, privilege leave for three months from 1st June 1898.

Surgn -Maj. G H. Baker, Civil Surgn., Gorakhpur, to hold visiting med. charge of Basti dist., in addition to his other duties, from 2nd May 1898.

Surgn.-Capt. G. T. Birdwood, on platform duty at Saharanpur, to med charge of Gazipur dist.

Asst. Surgn. A. Robertson, on return from tempy. mily. duty, to charge of European Civil Hosp, Allahabad.

Surg.-Lt. A. Macleod, on plague duty at Hardwar, to civil med. charge of Saharanpur dist.

Asst. Surgn. G. T. Carroll, on return from tempy. duty to civil med. charge of Muzaffarnagar dist.

Surgn.-Capt. J. Davidson, M B, C.M, I. M. S. (Beng), whose services have been placed temply. at the disposal of this Govt. to plague duty at Hardwar, Saharanpur dist.

Asst. Surgn. G. McCall, on return from mily. duty, to civil med. charge of Badaun dist.

Surgn. Maj. J. F. Maclaren, Civil Surgn., from Gazipur to Benares.

Asst. Surgn. Wazir Singh Sarin, Lecturer on Anatomy, Agra Med. School, privilege leave for 21 days from 6th June 1898, or subsequent date.

Asst. Surgn. E. H. Thomas, Lecturer, Materia Medica, Med. School, and in charge, Thomason Hosp. Agra, to offte. as Lecturer on Anatomy, in addition to his own duties, during absence on privilege leave of Asst. Surgn. Wazir Singh Sarin.

Asst. Surgn. Gopaul Chander Gupta, from plague duty, Hardwar, to charge of Sadar Dispy., Meerut, as a tempy. measure.

BURMA GOVERNMENT.

Hosp Asst. Villiat Hussain relinquished charge at the Police Hosp, Bhamo, on 6th May 1898 and assumed charge at the Police Hosp., Shwebo, on 9th May 1898.

Hosp. Asst. Tyimul Hussain relinquished charge of duties with Mr. Hertz's Boundary Escort, at Sadon, Myitkyina dist., on 1st April 1898, and is attached to the Police Hosp., Sadon, Myitkyina dist., from the same date

Hosp. Asst. C S. Rov relinquished charge at the Police Hosp, Mindat-Sakan, Pakokku dist., on 8th May 1898 and assumed charge at the Police Hosp, Pakokku, on 18th May 1898.

Hosp. Asst. Peary Mohun Barua, on proceeding on leave (*m.c.*) for three months, relinquished charge of duties at the Civil Hosp, Taungup, Sandoway dist., on 8th May 1898.

Hosp. Asst. Amrita Lal Guha relinquished charge at the Outpost Hosp, Nanyaseik, Mogaung divn., on 14th May 1898, and assumed charge at the Police Hosp, Panka (Mogaung), on 20th May 1898.

With reference to this office Notification, dated 4th May 1898, Hosp., Asst P. Govinda Pillay assumed charge at the Civil Hosp, Taungup, Sandoway dist, on 8th May 1898.

Hosp. Asst T. A. Rameswamy Iyer relinquished charge at the Civil Hosp. Pauk, Pakokku dist, on 29th April 1898 and assumed charge at the Police Hosp, Mindat-Sakan, Pakokku dist., on 8th May 1898.

With reference to this office Notification, dated 4th May 1898, Hosp Asst. Wazir Singh relinquished charge of additional duties at the Central Jail Hosp, Rangoon, 16th May 1898.

With reference to this office Notification, dated 9th March 1898, Hosp Asst. Ram Narain Chopra, on return from leave (*m.c*) for four months, assumed charge at the Police Hosp., Rangoon, on 19th May 1898.

G. O. C. C.

Surgn.-Major P. Hehir to med. charge of the 43rd Gurkha Regt, *vice* Surgn.-Capt. P. W. O'Gorman.

The undermentioned Native mily. pupils, having passed their final exam., are admitted into the service as Sub-Hosp. Assts. from 7th April 1898:—Ghulam Muhammad (E); Ghulam Ahmad (E)

Sub-Hosp. Asst. Parshotam Lal (E), to be 3rd grade Hosp. Asst from 2nd Sept. 1897, *vice* Senior Hosp. Asst. Shaikh Yunas, pensioned.

Sub Hosp. Asst. Chuni Lal (E), to be 3rd grade Hosp. Asst. from 3rd Sept. 1897, *vice* Senior Hosp. Asst. Bhola Misir, pensioned.

Sub Hosp. Asst. Salagram (E), to be 3rd grade Hosp. Asst.. from 14th Sept. 1897, *vice* 1st grade Hosp. Asst. Haidar Khan, pensioned.

Sub Hosp. Asst Gopaldas (E), to 3rd grade Hosp. Asst. from 17th Oct 1897, *vice* Senior Hosp. Asst. Man Singh, deceased.

(E) Passed in English.

ASSAM GOVERNMENT.

Hosp. Asst. Brajendra Mohun Goswami, a supy. in the Kamrup dist., is transferred to Sibsagar dist. and apptd. a supy. for duty under orders of the Civil Surgn. of that dist. from 1st May 1898.

Hosp. Asst. Muhammad Tahir, lately in tempy. med. charge of the Kokilamukh coolie depôt in the Sibsagar dist., is transferred to Garo Hills dist., and apptd. a supy. for duty under orders of Civil Surgn. of that dist. from 19th May 1898.

Privilege leave for three months is granted to Hosp. Asst. Lachman Pershad, in med. charge of Manipur Dispy., Jail and Police Hosps. from 1st May 1898.

Hosp. Asst. Prafulla Chandra Banerji, in med. charge Nichuguard-Manipur Road Circle, is apptd. to Manipur Dispy., Jail and Police Hosps., during the absence on leave of Hosp. Asst. Lachman Pershad, or until further orders, from 1st May 1898.

Hosp Asst. Nil Kanta Sen, lately in med. charge of the Jowai sub-divn., Khasi and Jaintia Hills dist., is, on expiry of his leave, transferred to Kamrup dist. and apptd. a supy. for duty under orders of Civil Surgn. of that dist. from forenoon of 21st May 1898.

Hosp. Asst. Asvini Kumar Datta, a supy. in the Sylhet dist., is apptd. temply. to med. charge of Bhanga dispy. in that dist., from 23rd May 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTH.

BRAGANZA—On the 22nd June, at Karachi, the wife of Surgn.-Maj. M. B. Braganza, 30th Bombay Infantry, of a son.

MARRIAGES.

HINDLEY—TYLER—On Sunday, the 1st May, at Southampton, Godfrey Douglas Hindley, B A. Oxon., M R C S, L R C P., of 69, Queen's Road, N. E., to Alice Evelyne, eldest daughter of Sir John Tyler, M D, C.I E., of 25, Hanover Square, W.

RUDDUCK.—TAYLOR—On 10th May, at St. Peter's, Bayswater, by Rev. E W Moore, assisted by the vicar of the parish, John Burton Rudduck, L.R.C.P., M.R.C.S., late of Assam, to Maude Mary Peiston Taylor, late of Bethlehem and Morocco, eldest daughter of Robert Taylor, Solicitor, of 7, Bedford-row, W. C

LINDESAY—FOWLER.—On Monday, the 6th June, at Trinity Church, Karachi, by the Rev. A, Howard, M.A., Victor Edward Hugh Lindesay, M.B., Ch. B., Surgn.-Lieut., I. M. S., third surviving son of the late Frederick Lindesay, M.A, J P, D L. Barrister-at-Law, of Loughry, Co. Tyrone, to Helen Frances Levine, eldest daughter of Major W. Merrick Fowler, late 61st Regiment, of Strode Manor, Dorset.

DEATHS.

IRVING—On 3rd May, at Royal York Crescent, Clifton, Bristol, Surgn.-Genl James Irving, M.D., Bengal Army (retired), aged 75 years.

LE MOTTEE—On the 5th June, at Quetta, Beluchistan, Herbert De Lisle, beloved son of Surgn.-Lieut.-Col. G. H. Le Mottee, A. M. S.,—aged 15 months.

NOTICES TO CORRESPONDENTS.

M. R. L. (Mylavaram).—For the case you describe, the fee for a Hospital Assistant's attendance on a patient in good circumstances at a station four miles distant ought to be ten rupees for each visit and travelling expenses paid.

F. V. (Solsagpur).—If the patent is in good circumstances, and if you have been in attendance for two months, a fee of Rs. 500 for a man of your professional position would be a very fair charge.

F. C. R. C. (Mandalay).—Your suggestion is a good one and will be kept in view when the next representation is made to Government.

K. M. Y. (Madras).—The memorial of the Indian Medical Association is now before the Government. Your letter has been filed for future reference.

H. K. S. (Raiganj).—In a later issue.

T. D. (Haffkinism).—On trial.

A. J. H.—You will get full information in the new edition of the *Medical Register and Directory of the Indian Empire.*

INDIAN MEDICAL RECORD,

A JOURNAL OF THE

Allied Sciences of Medicine, Surgery, Obstetrics and Sanitation

with which is incorporated a complete

Government Gazette of Medical Notifications for the Indian Empire.

EDITED BY

JAMES R. WALLACE, M.D., F.R.C.S.

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ORIGINAL ARTICLES.

AN ANSWER TO MR. LEONARD HILL'S REJOINDER REGARDING THE HYDERABAD COMMISSION.*

By T. LAUDER BRUNTON, M.D., F.R.S.,
Physician to St. Bartholomew's Hospital, London.

In his rejoinder[1] to my reply,[2] Mr. LEONARD HILL takes up a curious position, for on the one hand he says that he regrets exceedingly that vigour of criticism should be regarded by Dr. LAUDER BRUNTON as a personal offence, and on the other he says, "The strength of my attack is justified to the full by Dr. BRUNTON'S statement that he stands alone responsible for the work of the second Commission."

These two statements are so contradictory that the only conclusion I can come to is that Mr. LEONARD HILL does not know himself what he means, but I am quite willing to believe that he does not see the whole gravity and scope of his accusations, and I shall therefore pass over their personal bearing, and confine myself, as far as possible, to their bearing on the character of the work of the second Hyderabad Commission, which, being more important than the first, is usually simply called the Hyderabad Commission. I have already explained in my reply how I came to be responsible for any deficiencies in the work of this Commission, but I am very far indeed from claiming the credit for the work actually accomplished, which belongs to the Commission and not to me individually.

It is obvious, however, that as I am so far responsible for the work, any accusations brought against it are really directed against me personally, whether they were intended to be so or not, and the duty of answering them devolves upon me rather than on any other member of the Commission.

Before proceeding to examine the arguments by which Mr. LEONARD HILL, in his rejoinder in the *British Medical Journal* of 19th March, attempts to support the accusations he brought against me in the Journal of 17th April 1897, I will endeavour to correct some misapprehensions under which he appears to labor (*a*) in regard to the constitution of the Hyderabad Commissions, and (*b*) in regard to my reason for mentioning the shortness of the time occupied in the work.

(*a*) In his rejoinder Mr. HILL asks: "Were Surgeon-Lieutenant-Colonel LAWRIE and Dr. LAUDER BRUNTON the first and second Commissioners respectively, and the Commissioners BOMFORD, RUSTOMJI, HEHIR, KELLY, CHAMARETTE merely assistants?" Mr. HILL appears not to have read with care the report which he has so violently attacked, for otherwise he would have known (1) that, so far from Surgeon-Lieutenant-Colonel LAWRIE being the first Commissioner, he was not even a member of it; and (2) that the second Commission continued its work during my absence through illness, which it could not have done had I been the Commission instead of being merely a member of it.

(*b*) Mr. HILL asks why my three months' ticket was not extended? The answer simply is that I could not be absent longer from my engagements in London and accepted the invitation to join the Commission only for this limited time. But Mr. LEONARD HILL completely misapprehends my meaning when he says: "it is a curious excuse to bring forward in defence of deficiencies that the work of scientific investigation was done in a hurry." He does not appear to understand that there is all the difference in the world between doing things quickly and doing them in a hurry, for this term implies a want of the complete co-ordination of action requisite to obtain the best result.

The scientific work of the Commission was done in a short time, but it was not done in a hurry, and I have not brought forward hurry as an excuse for any deficiency in the work done by the Commission, with one exception, which I will presently mention, and which I ought to have specified in my reply. Notwithstanding the shortness of time allowed for collecting apparatus, I was able, either by purchase or by selection from what I possessed, to obtain all the instruments I thought necessary, with one exception, namely, LUDWIG and VON BASCH'S electrodes, those which I have had in my possession for many years, and used in former researches, were unfortunately mislaid, and I was unable to obtain new ones before sailing. The electrodes I had with me were such as had been generally in use by physiologists previous to 1874, and are quite sufficient for most work, although the possession of LUDWIG'S electrodes would have ensured more perfect application of the stimulus to the vagi than was attained in Experiment 95. As a doubt regarding the application of the stimulus was carefully mentioned in the report, the record of the experiment was perfectly trustworthy, and affords no ground for Mr. HILL'S objections. With this exception my mention of the shortness of time employed in collecting apparatus, and in the work of the Commission was not brought forward by me as an excuse for any imperfections in the work *actually done* and recorded in the report. It was intended as an excuse for the work which the Commission, in spite of the other advantages at its disposal, was *obliged to leave undone*, and which is therefore altogether outside Mr. HILL'S criticism. The work of the Commission has been supplemented by the researches of GASKELL and SHORE, and also of HARE and THORNTON, both of which researches were initiated by Surgeon-Lieutenant Colonel LAWRIE. Yet much remains still to be done, and some of the lines of research on which the Hyderabad Commission worked are still in the same state as it left them. The Commission began to investigate the influence of altered tissue change and excretion on the susceptibility of the cardiac nerves to stimuli, and on the production of shock either with or without chloroform, but this question still remains to be worked out, although a new research by CYON on the effect of thyroid extract upon the excitability of the cardiac nerves gives reason to hope that our knowledge regarding this subject may soon receive a substantial increase.

Having now tried to correct Mr. HILL'S misapprehensions, I will proceed to examine the arguments by which he endeavours to support the accusations of (1) prejudice, (2) carelessness, (3) ignorance of scientific methods; and (4) incompetence, which he brought against me in the *British Medical Journal* of 17th April 1897. In his rejoinder he says: "I never intended any attack that I have made upon the conclusions of the Hyderabad Com-

* Reprinted from the *British Medical Journal* by request.

opinion as a personal attack upon Dr. LAUDER BRUNTON, for whose work I naturally have the highest appreciation." But the attack now in question was made by Mr. HILL not upon the conclusions of the Hyderabad Commission, but upon their experimental work. *Their* conclusions might have been wrong, and yet the experimental work perfectly right. But Mr. HILL has chosen to deny the trustworthiness of the experiments, and thereby he attempts *to nullify the whole work of the Commission. In his rejoinder he does not withdraw his accusations, but on the contrary tries to substantiate them. In order to justify this action he must prove his accusations to be true. I shall now take them up seriatim*, and examine the evidence by which he attempts to prove them.

1. His first accusation is that of prejudice. In his lecture,[3] he said the "Hyderabad Commission engaged on a wild goose chase to prove that the respiration ceases before the heart failed." In my answer,[4] I mentioned my responsibility in connection with the work of the Commission, and showed that when I set out for India, any prejudice that I had was in favor of danger arising from the direct action of chloroform on the heart, so that when the results of many experiments caused me to change my opinion, the announcement was mentioned by *The Lancet* with a certain amount of surprise in the annotation which I quoted in my reply. In his rejoinder, Mr. LEONARD HILL simply gives a short historical summary of the appointment of the Commissions which has no apparent bearing on the subject, and then quotes from a leading article in *The Lancet* the following passage:—"Clinical experience and physiological experiments have led to the conclusion that it (chloroform) has a paralysing effect on the heart, while ether exerts such an action in a very minor degree, if at all. It is almost impossible to believe that the conclusion at which European and American surgeons and scientists have arrived is, after all, destitute of foundation, and little better than an idle dream." It was because this passage exactly expressed my opinions on the subject when I left England that *The Lancet*, in the annotation to which I have already referred, expressed surprise at the change they had undergone, and anxiety to learn the experimental evidence which had induced this change. Had any further evidence been wanted to show how utterly groundless Mr. LEONARD HILL'S accusation of prejudice was, the quotation which he himself gives in his rejoinder would supply it.

2. His second accusation is that of carelessness. This charge is of the very gravest kind, for if it be true, it entirely deprives the experimental work of the Hyderabad Commission of any value whatever. So important is it that I shall again quote it. Mr. LEONARD HILL says in his lecture that the conclusions of the Hyderabad Commission were "upheld by a series of experiments, many so careless in their execution that they could not for one moment be accepted by a trained physiologist." Although Mr. HILL only states that many of the experiments made by the Commission are untrustworthy, yet he practically condemns every one of them as utterly valueless, for, as his accusation at present stands, it is impossible to bring forward a single one of the Commission's experiments without being liable to the retort that it is one of the "many" which Mr. LEONARD HILL has declared to be so careless in execution that they cannot be accepted [illegible] physiologist. If his accusation be true, the most [illegible] made on the action of chloroform is nothing more than a complete and useless waste of time, labour, animal life and money. *It is evident that these charges are* of the gravest nature, and before making them Mr. HILL ought to have been certain that he could prove them by incontrovertible evidence. Let us now see what the evidence is which he actually brings to support them. It is of such an extraordinary character that I shall quote part of it verbatim. He says:—"*In justification of my charge of carelessness I can bring forward the following facts*:—

"(1) That the work of the first Commission was conducted by men unskilled in experimental methods and apparently without apparatus.

"(2) That the second Commission was conducted in an out-of-the-way place with such apparatus as could be hurried together in the fortnight preceding Dr. BRUNTON'S departure.

"(3) That the research was hurried through in forty-seven days.

"(4) We may turn to the internal proof to be drawn from the experiments themselves.

"(*a*) An absolutely insufficient method was used to record the energy of the heart.

"(*b*) That chloroform was injected into the jugular vein, and was not washed on into the heart by normal saline solution. Thus no syncope occurred."

From this quotation we see that the first proof Mr. HILL brings forward in support of an accusation of the utmost gravity, which, if true, would utterly destroy the value of all experiments done by the second Hyderabad Commission, and for which I am responsible, is that these experiments were careless in execution because the first Commission, which sat nearly two years previously, and of which I was not a member, "was conducted by unskilled men and apparently without apparatus." A more remarkable *non sequitur* it would be hard to find.

His next proofs are, if possible, still more extraordinary. Mr. HILL lays down a standard of his own, by which he judges our experiments and condemns them as careless, whilst he appears to be ignorant of the meaning of the term. He seems not to know that carelessness does not depend on the place, where a thing is done, on the apparatus with which it is done, nor on the time employed in doing it, but on the way in which it is done. It is a term quite inapplicable to place, materials, or time, and applies only to the manner in which the operators employ the means at their disposal. If Mr. HILL'S standard of carelessness were correct, we might at once cast aside as worthless all the observations of travellers of exploring expeditions because they have been made in out-of-the-way places. Henceforth civilised Governments may save themselves the trouble and expense of sending out expeditions to observe the transit of Venus or total solar eclipses because any results they obtain will, according to Mr. HILL'S canon, be condemned beforehand as absolutely untrustworthy, inasmuch as the observations must necessarily be made (1) in out of-the way places; (2) without the aid of such large telescopes or such perfect apparatus as would have been available at home; and (3) in a space of time which has to be measured by seconds,

The absurdity of Mr. Hill's general proofs of carelessness it would be difficult to surpass.

Let us now turn to the internal proofs of carelessness which Mr. Leonard Hill draws from the experiments themselves. His first proof is (*a*) "an absolutely insufficient method was used to record the energy of the heart." Even if this were true, which it is not, this statement is no proof at all of carelessness in the performance of the experiments. It is simply a question of apparatus, and I will consider it in its proper place, namely, under his third accusation, of ignorance of exact physiological methods. His second proof is (*b*) "that chloroform was injected into the jugular vein after ligature of the vein, and was not washed on into the heart by normal saline solution." This experiment was cited by Mr. Leonard Hill in his lecture as a proof of my ignorance of exact physiological methods.

In my reply I showed that his position was untenable, so he now shifts his ground and brings it forward as a proof of carelessness. He tries to do this by stating that it was not the method but the manner in which the injection was carried out that is open to severe criticism.

But in the two objections just quoted there is no question whatever of either carelessness or any other defect in the manner of performing the experiments, and it is only to the methods that Mr. Hill's remarks apply. These methods are (1) ligature of the vein previous to injection; and (2) omission to wash the chloroform into the heart by normal saline solution. I have already shown in my reply that in objecting to our method of ligaturing the vein before injection, Mr. Hill is in a minority, and that instead of my being ignorant of exact physiological methods, it is Mr. Hill who was either ignorant of the fact that the method I employed was the one recommended by Burdon Sanderson, Cyon, and Gschenden, or else in his superior wisdom he sat in judgment on the writers of the best hand-books on physiological methods, and included them in the same condemnation with me. It is, therefore, unnecessary for me to discuss this objection any further. His objection to the second method, namely, that we injected chloroform into the jugular vein, and did not wash it into the heart with saline solution, I will answer by two questions: (1) If the chloroform reached the heart without the injection of saline solution, of what use would such an injection have been? (2) If the chloroform did not reach the heart, how did it kill the animal as it did?

The other experiments which I dealt with in my reply under the accusation of incompetence, but which Mr. Hill now brings in under carelessness, are those on the effect of alteration of position. I have already said that Mr. Leonard Hill's statement with regard to them is absolutely incorrect, and I will again consider it under the charge of incompetence.

As I have already pointed out more than once, Mr. Leonard Hill's accusation that many of the experiments performed by the Hyderabad Commission were so careless in execution that they could not for a moment be accepted by trained physiologists, applies in its present form to all their experiments, and must so apply until the experiments to which it actually does apply are specified so as to exclude those to which it does not apply. I asked him to specify the untrustworthy experiments, and, with the exception of those which I shall deal with under the head of incompetence his "*many* have dwindled into one solitary experiment which he utilises for a double purpose, employing it in his lecture as the basis of an accusation against me of ignorance of exact physiological methods and using it in his rejoinder as the basis of an accusation of carelessness; but as I have already shown, this solitary experiment upon which Mr. Hill would found so much, affords no basis whatever for either of his accusations.

Having thus examined the evidence by which Mr. Hill attempts to support his accusation of carelessness—an accusation which, if proved, would totally destroy the whole experimental work of the Hyderabad Commission—we find that it consists, first, in a fancy of Mr. Hill's that work is untrustworthy if it is done (1) in an out-of-the-way place, (2) with limited apparatus, and (3) in a short time, a fancy which fortunately for the world at large exists only in Mr. Hill's imagination, and does not correspond with facts; secondly, in a statement that the apparatus employed did not meet with Mr. Hill's approval; finally, we find that the "many" experiments which he denounced as untrustworthy have shrunk down into a solitary one, and even against this Mr. Hill's evidence of carelessness utterly breaks down. Such are the grounds on which Mr. Hill seeks to destroy the whole experimental work of the Hyderabad Commission.

I will now take up Mr. Hill's third accusation of ignorance of physiological methods. In his lecture he attempted to prove this charge by bringing forward the experiment of injecting chloroform into the jugular vein. In my reply I showed that this so-called proof was worthless, and that all the best text-books on physiological methods recommended the method I used. In his rejoinder he finds it convenient to shift his ground, and say it was not the method but the manner of using it that was objectionable, and he now brings it forward as a proof not of ignorance but of carelessness, and under this heading I have already dealt with it. Another proof which he brings forward in his rejoinder in support of his accusation of carelessness, but which, as I have already shown, ought really to have come under the heading of ignorance of exact physiological methods is that "an absolutely inefficient method was used to record the energy of the heart. A heart, when poisoned with chloroform, is thrown into paralytic dilatation; it continues to beat, but is incapable of emptying its cavities. A needle thrust into the heart would exhibit the efforts of contraction, it tells us nothing of the efficiency of action of that organ, and yet this was the method employed by the Commission." This statement of Mr. Hill's is a most extraordinary one, for if he has read the report, he must know that the Commission did not employ a needle in the heart in order to record its energy, but simply in order to ascertain whether it was contracting or not, for which purpose, as Mr. Hill himself acknowledges, it was amply sufficient.

I now come to Mr. Hill's last accusation—namely, that of incompetence. In this lecture he affirms that I, in experiments on the effect of altered position, paid no attention to the absolute necessity of placing the arterial cannula in the axis round which the animal was turned, and that by neglect of this simple precaution the experiments on the point were rendered utterly worthless

Although it is in another place that he applies that word "incompetent," yet if his accusation that I suggested this simple precaution were true, I should well deserve the epithet. But this statement is a pure product of Mr. Hill's imagination. It does not correspond to the facts of the case, and is therefore untrue. Nevertheless Mr. Hill considers that he was justified in uttering it, without taking the trouble to ascertain previously whether it were true or not, because he did not find in the report a statement that certain precautions were taken. The reason why no such statement appears in the report is that my long experience in physiological work has led me to look upon these precautions as so indispensable that I no more thought of mentioning them than I did of commencing my account of each day's work with the statement that the sun had risen, and consequently there was light enough to see our apparatus. For want of such a statement Mr. Hill may feel justified in rejecting all our experiments; and indeed, in order to be consistent, he ought to do so, for we have neither stated that the sun was up, nor that we employed artificial light when making our experiments, and consequently Mr. Hill has no assurance that we were not working in total darkness. But no amount of incredulity on Mr. Hill's part, nor of tenacity in holding to his fancies, will ever convert these fancies into facts, or change his statement from untruth into truth. It is curious to learn from the data with which Mr. Hill furnishes us how he came to make this unfounded statement. He is apparently unable to conceive of an axis without an axle, and so he postulates a swing board as a necessity for the experiment. His imagination, limited by the experience of the scanty supplies in a London laboratory, cannot picture to itself a supply of animals nearly of the same size, nor can he conceive that a floor may be temporarily heightened in the part required by means of blocks. Having thus laid down a canon to which experiments must necessarily conform, he condemns those which do not do so as being utterly valueless, in the same way as he condemned those which did not conform to his canon of carefulness. In neither case does it seem to have entered into Mr. Hill's mind that he could possibly be mistaken, and so he takes upon himself to act as the mouthpiece of trained physiologists, and, in this assumed capacity, to condemn our experiments without further inquiry.

I have now taken up Mr. Hill's accusations of prejudice, ignorance, carelessness, and incompetence, one by one, and have shown that all those accusations are absolutely groundless, and that the experiments of the second Hyderabad Commission are perfectly trustworthy, and may be accepted as such both by trained physiologists and by everybody else.

REFERENCES.

1 *British Medical Journal*, March 19th, 1898; 2 *Ibid*, March 26th, 1898; 3 *Ibid*, April 17th, 1897 & *Loc. cit.*

NOTES ON THE HISTORY OF THE MIDWIFERY FORCEPS.*

BY THOMAS MORE MADDEN, M.D., F.R.C.S.I., M.A.O.
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THE history of the invention of the midwifery forceps, the abnormal frequency of its employment at one period, its consequent almost complete disuse at a later epoch, and its subsequent reintroduction into modern practice, form one of the most interesting chapters in the annals of our art. That chapter, moreover, is one that may not be undeserving of some consideration, inasmuch as it seems to me to convey a lesson, the practical application of which has been somewhat unfortunately lost sight of, owing to the too general neglect of ancient medical literature by modern practitioners. "The mental disease of the present day," says JOHNSON (and the observation is unquestionably more applicable now than when it was first made), "is impatience of study, contempt of the great masters of ancient wisdom, and a disposition to rely wholly on unassisted genius and natural sagacity. If no use is to be made of the labors of past ages, the world must remain always in the infancy of knowledge. The discoveries of every man must terminate in his own advantage, and the studies of every age be employed on questions which the past generation had discussed and determined."

I have elsewhere enlarged on this subject, and have shown that some of our most valued improvements in gynæcology and surgery—such, for instance, as the rapid dilatation of the os uteri, the local treatment of endo-uterine disease, the use of the vaginal speculum, the methods of hypnotism, and the employment of anæsthetics in surgical operations are all instances of the modern revival of ancient practices. The same application applies to the history of the midwifery forceps, and I may here avail myself of some observations of mine in the Proceedings of a Society, now many years defunct in illustration of the fact that the very discussion which occasionally crops up as to the use of this instrument, as well as some of the modifications in its form, and in the methods of its employment which recent authorities have suggested were anticipated by our forgotten predecessors in the obstetric art.

Most of the writers who have treated of the history of the forceps since 1794, when MULDER'S "*Historia Literaria et Critica Forcipum et Vectium*" was published, appear to have borrowed, not only their narrative, but also their quotations, at second-hand from this work, of which, therefore, I have not availed myself, but have compiled the following sketch of the history of this instrument, and taken my citations, as far as possible, from the original authorities.

The invention of the forceps is generally ascribed to the elder CHAMBERLEN, whose family monopolised the obstetric practice of London for three-quarters of a century.

* Reproduced from *The Analyst* by request.

Even Dr. [illegible] acquiesces in the common opinion. "There can now be no doubt," he says, "of the credit of the invention being due to Dr. PAUL CHAMBERLEN, and [illegible] have shown that there is presumptive proof that it took place before the year 1654."*

Having, however, devoted a good deal of attention to this question, it appears to me that the only merit the CHAMBERLENS are entitled to is that of improving an old and less perfect instrument, designed for the same purpose, and described in works with which Dr. PAUL CHAMBERLEN, who lived at a time when medical literature was circulated in a language common to the learned in all countries, could hardly have failed to be conversant.

The forceps is not mentioned by any of the known Greek or Roman medical writers, whose obstetric knowledge, however, with the exception of CELSUS, was extremely limited. Midwifery was then almost exclusively confined to female practitioners, the higher class of whom, the Medicæ, were entirely distinct from the Obstetrices, as the mere midwives were called, and appear to have corresponded very closely to the "lady doctors" of the present day, and we have evidence that the forceps, or something of the same kind, intended for the same purpose, was not unknown to the latter at least eighteen hundred years ago, in the discovery of a similar instrument in the house of a Roman obstetrix in the excavations at Pompeii.†

The first-known reference to the forceps is that of AVICENNA, the Arabian physician of the tenth century, whose works were translated into Latin, and published at Basle in 1556, by ANDREW ALPAGO, from whose edition I have taken the following passage in which the author refers distinctly to the use of the forceps for the delivery of living children in cases of difficult labor, and makes this more evident by going on to direct that, in case the midwife fails with the forceps, she must then resort to embryotomy, as in the case of a dead child:—"Cap. 26. De Regimine ejus cujus partus sit difficilis causâ magnitudinis fœtus—Oportet obstetrix bona faciat retentio hujis modi fœtus. quare subtiliter in extractione ejus paulatim; tunc si valeat illud in se, bene est; et si non liget eum cum margine panni, et trahat cum subtiliter attractione post attractionem. Quod si illud non conferet, administreatur forcipes, et extrahatur cumilis. Si viro non confert illud, extrahatur cum incisione, secundum quod facile sit, ut regatur regi mine fœtus mortui"‡

A century after that time we find two midwifery instruments, which, in the Latin version, are mentioned as "Forceps," were described by ALBUCASIS—*i.e.*, the long forceps, or Almisdach, and the short forceps, or Misdach; but these instruments, from their construction, were obviously not intended for the extraction of a living child, and hence may be dismissed without further consideration.

The directions of AVICENNA as to the use of the forceps were repeated by MERCURIALIS, a writer of the sixteenth century, whose treatise, "*De Morbis Muliebribus*" was reprinted by SPACHIUS in 1597. In this work he says: "When the labor is rendered difficult by the size of the child, AVICENNA gives the following rules:—'Prima est ut obstetrix tenent manibus educere. Si vero manibus non potest, fascia circumligetur fœtus corpus, atque ita paulatim educatur. Si vero hoc non succedat, habent obstetrices quasdam tenacula quibus circumligant pannos ne lædant vel offendant fœtum iisque educant.'"*

JACOBUS RUEFF, in his treatise, "De Conceptu et Generationis Hominis," published at Zurich in 1524, and reprinted in SPACHIUS' collection—"Gynæciorum Græcorum, Arabum, Latinorum, Veterum et Recentium, ect., Opera et Studido Israelis. Spachii Med. D. Fol Argentinæ, 1597—describes and gives an engraving of a midwifery forceps—"In hoc casu si postulaverit necessitas, hinc instrumento forcipem qua dentes evuuntur adhibeas, vel depictam hinc forcipem longam et teream, qua ita utatur commode, ut si possibile sit, id quod protrahendum est educat facihter."†

The earliest English reference to the use of any instrument, apparently for the same purpose, is contained in JAMES COOK'S *Mellificum Chirurgæ or Marrow of Chirurgery*," the first edition of which was published in 1647, and is quoted in Dr. AVELING'S interesting "Biographical Sketches of British Obstetricians," in the *Obstetrical Journal* for October 1873.

"Being commanded by the Lady Dowager BROOK to wait on her to London, to take the consult of physicians, in the way before we came to Tossiter, we met with the tidings of that fatal fire of London, which caused her honor to resolve for Hackney. After some time of her being there I was desired by Mrs. HATTON to go visit one, near her time of her first child, who was aged. She begged of me to come to her if there was need. I told her there were several men abler than myself and fitted with instruments which I wanted, which might be had from the city (doubtless, here, says Dr. AVELING, he refers to PAUL CHAMBERLEN). After two or three days, in the night she sent for me. I being very much indisposed, and the night tempestuous, I denied; but, being very much importuned by a gentleman, I went. When come, I made trial and found the child come right. but without advantage, though pains were strong. I made use of what came next my thought, getting it a little better fitted at a smith's shop hard by, with which I brought away the child, though with much difficulty."

The forceps of AVICENNA, like those of JACOBUS RUEFF, were small and imperfect instruments, the blades being united by a fixed point, and therefore necessarily introduced into the vagina together and there opened to catch hold of the head of the child, *si possibile est*! This same malconstruction occurs in CHAMBERLEN'S first forceps, which was merely an enlarged copy, with fenestrated blades, of the "forcipes longa et teres," described by RUEFF in 1524.

In CHAMBERLEN'S second forceps we find that he had discovered the inconvenience of the fixed point, and I think the only credit he deserves is that of opening and enlarging the blades, and doing away with this articulation. On their own showing, none of the CHAMBERLEN'S, from Dr. PAUL, the supposed inventor, down to Dr. HUGH,

* Researches on Operative Midwifery, by Fleetwood Churchill, M.D., p. 111, Dublin, [illegible].

† Adams' Translation of Paulus Ægineta, Vol. I., p. [illegible].

‡ Avicennæ Medicorum Arabum Principis, Liber Canonis de Medicinis, Cordialibus [illegible] ex Arabico Sermone in Latinum Conversa et partim vero ab Andrea Alpago infinitis [illegible], P. 734, Basiae, 1556.

* Mercurialis in Spachius' Gynæcciorum, [illegible], p. 227, 1597.

† Jacobus Rueff, De Conceptu, ect., in Spachius' Gynæcciorum, p. 179.

the translator of MAURICEAU's work, are entitled to much gratitude from posterity for their boasted discovery of an instrument professedly designed to save life and relieve suffering, but which they sordidly kept a close secret for their own aggrandisement. Up to the time when the sixth and last edition of his translation of MAURICEAU's first volume was published, in 1715, Dr. HUGH CHAMBERLEN retained his secret.

"My father, brother, and myself (though none else in Europe as I know), have, by God's blessing and our own industry, attained to and long practised a way to deliver women in this case without any prejudice to them or their infant, though all others (being obliged, for want of such an expedient, to use the common way) do, and must, endanger, if not destroy, one or both with hooks."

Some years ago, the late Dr. M'KENZIE, who was long distinguished as an obstetric practitioner, presented me, amongst other papers, with a manuscript containing a version of the history of CHAMBERLEN's failure with the forceps in his Paris case, as related in the earliest lectures delivered in Edinburgh, on midwifery. The first professor of this subject in that University was Dr. GIBSON, who was appointed in 1726, but died before entering on his professional duties, being succeeded by Dr. YOUNG, of whose unpublished lectures Dr. M'KENZIE's manuscript notes were recently before me.

Dr. YOUNG's account is evidently founded on MAURICEAU's from which it only differs in saying that—"The woman died under his hands undelivered, upon which he quitted Paris without selling his secret. This afterwards turned out to be the forceps, which had saved the lives of thousands that otherwise must have been lost. The next writer is GIFFARD, who practised about the same time with CHAPMAN, and it was he that introduced the frequent use of the forceps, and who perhaps had more practice with them than any of his predecessors, or even successors. . . . . CHAPMAN only delivered six, and these with one single blade of the forceps. This single blade, or vectis, is what is called ROONHEYSEN's secret, and in Holland none are allowed to practice midwifery without being instructed how to use this single blade by the professor appointed for that purpose."*

The foregoing account of the introduction of the forceps into practice differs somewhat from that given in another manuscript, also recently in my possession, containing the unpublished lectures on midwifery delivered in Edinburgh in 1776 by Professor HAMILTON. In the latter it is erroneously stated that before attempting to use the forceps in his celebrated Paris case, CHAMBERLEN had obtained a thousand pounds from the French Government for divulging his secret. "This sum," says Dr. HAMILTON, "was readily granted, and he was called to the next laborious case that occurred, but in this he was foiled, and MAURICEAU afterwards delivered the woman by opening the child's head, but the woman died, as MAURICEAU mentions, from the instrument of the English operator wounding the uterus in several places. CHAMBERLEN left Paris and came home by Holland, and, it is said, there showed the forceps to ROONHEYSEN; this, however, is disputed, but most certainly it was not known at Paris for a long time after—not, I believe, till 1734. Most certainly it was not known at the time that PALFYN came to Paris to publish his system of surgery . . . After CHAMBERLEN, CHAPMAN improved them, but very little. Both his and CHAMBERLEN's were straight, by which they could not be worked with without the handles injuring the woman very much behind. LEVRET introduced a curved pair. FREKE armed his with a crochet at one end and a blunt hook at the other, by which the practitioner went about armed at all points. FREKE's instrument is too long; however it is used all over the Continent with a very slight alteration.

SMELLIE, who had a very considerable mechanical turn, improved the forceps most. He first constructed a wooden pair, but he found this so difficult of application that he soon gave it up and had a steel pair made. Dr. WALLACE JOHNSTON next improved the forceps; he added the curve of LEVRET; increased the breadth of the blades and diminished the weight of the instrument. The London practitioners are every day inventing new ones, but they are in no degree superior to this. After all that has been said about the forceps, I may now remark that a man who has been used to deliver with instruments may deliver with the shafts of a couple of spoons; yet young practitioners find considerable difficulty in delivering with the modern forceps."†

The case in which CHAMBERLEN failed to effect delivery with his forceps in Paris, as narrated by MAURICEAU, reflects more credit on the English than on the French accoucheur—the latter left the woman to die undelivered, the former at least attempted to assist her:—"On the 19th of August 1670," says MAURICEAU, "I saw a small woman, aged thirty-eight, who had been in labor of her first child for eight days. The waters escaped on the first day without hardly any dilatation of the os. Remaining in this condition until the fourth day, I was sent for, and recommended the midwife to bleed her; and in case this did not produce the effect I hoped, to administer an infusion of senna to excite pains, which she had not; this was done the following day, and succeeded in causing pains, by which the mouth of the womb was dilated as far as possible. Nevertheless, I could not deliver, and the child had remained in the same situation, without been able to advance, for this woman was so small, and the bones (of the pelvis) so narrow and close to each other, and the sacrum so curved forwards, that it was quite impossible to introduce the hand to deliver her, although mine is small enough . . . or to introduce the fingers sufficient to enable me to use a crochet safely, so as to extract the child, which had been apparently dead for about four days. I declared the impossibility of delivering this woman to my assistants, who, being well persuaded of this, prayed me to perform the Cæsarean operation, which I would not undertake, knowing well that it was always certainly fatal to the mother. But after I had left the woman in this condition, it not being possible for me to help her as I would any other of a more normal conformation of body, there came shortly afterwards an English physician named CHAMBERLEN, who was then in Paris, and who, from father to son, made a profession of midwifery in England, in the town of London, where he thus acquired the highest reputation in that art.

* Dr. Young's Manuscript Lectures.

† Dr. Hamilton's Manuscript Lectures, Vol I, p. 228.

This physician finding the woman in the condition just stated, and learning that I had not found any possibility of delivering her, declared himself astonished that I could not do so." MAURICEAU (says MAURICEAU, with all a Frenchman's untranslatable vanity), qu'il disoit assurolt estre le plus habile homme de ma profession qui fort à Paris" ; notwithstanding which he at once promised to deliver her most assuredly in less than half a quarter of an hour, whatever difficulty he might find. Accordingly, he immediately applied himself to the business, and in place of half a quarter of an hour he worked for more than three entire hours without cessation, except to take breath. But having vainly exerted all his strength as well as all his industry, and seeing that the poor woman was almost dead in his hands, he was obliged to abandon the attempt and to allow that he could not accomplish it, as I had well-declared. This poor woman died undelivered twenty-four hours after the violence he had done her, and at the examination I made in performing after her death the cæsarean operation, which I would not do before, as I had said, I found the child and everything else as I had before stated, and the womb all torn and pierced through in several places by the instruments which this physician had blindly used without the control of his hand, which being a size larger than mine, he did not seem to have been able to introduce sufficiently far so as to preserve it." MAURICEAU then goes on with great complacency to observe that the English physician, who had come six months previously to Paris, in the hope of making his fortune, had circulated a report that he had a secret (tout particulier) for such cases, and vaunted that he could thus deliver in even the most desperate and otherwise hopeless cases in less than half a quarter of an hour, and had even proposed to the first physician to the King that for a reward of ten thousand crowns he would disclose his pretended secret. "Mais la seule experience de ce fâcheux accouchement le degôuta tellement de ce pais-li, qu'il s'en retourna peu de jours en suite an angleterre ; voyant bien qu'il y a Paris de plus habile gens en l'art des accouchemens que lui." Before leaving Paris CHAMBERLEN called on MAURICEAU, and after various compliments had passed between them, the latter thus concludes his account of the visit :— "Je reçûs son compliment comme je devois lui faisant entendre qu'il s'était bien trompé en croyant trouver autant de facilité à accoucher les femmes à Paris, comme, il avoir pû trouver à Londres ou il retourn a le lendemain emportant avec lui un exemplaire de mon livre ; qu'il fit imprimer après l'avoir traduit en Anglais en l'anné, 1672, depuis laquelle traduction il s'est acquis un si bout degré de reputation daus l'art des accouchemens daus la ville de Londres, qu'il y a gagne plus de trente mille livres de rente, qu'il possede présentement."*

Amongst the writers who took part in the introduction into midwifery practice of instruments intended for the same purpose as the forceps, a prominent place must be assigned to M. JEAN PALFYN, of Ghent.

In 1708 PALFYN published at Leyden an anatomical

* Observations sur la Grossesse et l' Accouchement des Femmes, Par François Mauriceau, Ancien Prevost de la Compagnie des Maitres Chirurgien de la ville de Paris. Observation xxvi., p. 26. Paris, 1716.

continuation of MAURICEAU'S work ;* and twelve years later, being at Paris bringing out a new edition of his book, he presented to the French Academy of Science what he termed his tire-tête—a kind of extracting forceps, the handles of which did not cross, but were simply connected together by a ligature.

Although CHAMBERLEN and, in a lesser degree, CHAPMAN have generally been given the credit of introducing the forceps into English midwifery practice, the first who avowedly employed and recommended the use of this instrument was Mr. WILLIAM GIFFARD, surgeon and man-midwife, who died before CHAPMAN'S book appeared. GIFFARD appears to have used his "extractor," as he calls it, almost as freely as any modern accoucheur does the forceps, and moreover, anticipated SMELLIE'S plan of dilating the os uteri to apply this instrument, which has been again revived.

The first case in which GIFFARD employed his "extractor," or forceps, occurred on the 8th of April 1726, the patient being the wife of one of the Prince of Wales' servants, and, owing probably to the inexperience and timidity of the operator, was unsuccessful.

Two years subsequently he relates the first published case in which the forceps was successfully used for the delivery of a living child. This occurred on the 28th of June 1728. The woman had been for many hours in "labor which was delayed by inertia ; and having first administered a clyster and two cordial hypnotic draughts," at intervals of eight hours, he says :—"I then found the child but little advanced, her pulse was very quick and laboring, and the womb very much spread, so that I could entirely pass my fingers round the head to the ears, for it was no ways engaged, but loose wherefore considering that her pulse grew languid, and that her strength decreased, I thought it advisable to attempt her delivery. I endeavoured to press the child back, that I might be able to turn and get the feet, but it was so locked at the shoulders that I was not able to move it, whereupon I passed my extractor and drew it with much difficulty forwards without the labia. . . . The child was born alive. This case proves that a child presenting right, but sticking in the passage, may be brought alive (I won't say always) without either the use of hooks, or lessening the head, contrary to the opinion of most former writers."†

GIFFARD occasionally narrates the history of more than one forceps case occurring in the same day as an ordinary matter. Thus, on the 17th of May 1731, he met with two cases "where," he says, "I thought it advisable to lend my assisting hand." The first was a case where the head was for some hours impacted in the pelvis ; and the second is a case—interesting at the present time, when the same practice is again recommended—of labor delayed by rigidity of the os, where he "was of opinion that the delivery ought to be immediately effected in respect both of the mother and of the child. . . . But as the os internum was not so fully dilated as readily to admit the passage of the head through it, I strove to stretch and widen it by putting the ends of my fingers between it

* Description Anatomique des Parties de la Femme qui servent la generation est. Lequelles ouvrages ont peut considéré comme une suite d l Accouchement des Femme. Par M. Mauriceau. Par M. Jean Palfyn, Anatomiste et Chirurgeon de la Ville de Gend. Leide, 1708.

† Cases in Midwifery, written by the late Mr. William Giffard, Surgeon and Man-midwife. Revised by Edward Hody, M.D., p. 48, London, 1734.

and the child's head, and by this method, made way for the more easily passing of the instrument, without bruising or tearing the parts."*

To Edward Chapman is due the credit of first making Chamberlen's secret known to the profession, as well as of *improving its construction by substituting hard for soft metal, and dismissing the rivetted lock long retained in some French and American forceps.* In his "Treatise on the Improvement of Midwifery," published in 1733, Chapman states that difficult labors, where the head lies low, can only be accomplished by either the fillet or by the forceps. "As to the forceps," he says, "which, I think, no person has yet any more than barely mentioned, *it is a noble instrument, to which many now living owe their lives*, as I can assert from my own knowledge and long successful practice."

The frequent use into which the forceps came as soon as it was known is evinced by numberless contemporaneous authorities; but by none more clearly than by the author of a letter addressed to Chapman, and published in the third edition of this book. "All I can say," reiterates Chapman, "in praise of *this* noble instrument must necessarily fall short of what it justly demands.

The following letter was sent to me by a gentleman who has been recommended to me for information in this art, and has long practised with great success and applause.—

'Sir, if you please to remember, about a week after I came into the county, I acquainted you that I was called to a woman in labor, where the child presented with the head far advanced in the vagina, with the os uteri extending. I delivered her with the forceps, and neither the mother nor the child received the least injury Since that time I am come into such credit that I am frequently called in twice or thrice a week; and, I thank God, I have not, as yet, met with the least mishap Our midwives here are pretty dexterous, but when the head falls so low as to require the use of the forceps, they are at a loss I have had two cases where I was obliged to deliver feetways, the heads of the infants not offering directly right for the instrument. All the rest I delivered with the forceps.—Yours &c., John Paget, Sullworth, 30th October 1734."†

The years 1733 and 1734 are memorable in the history of the forceps, for not only were Giffard's and Chapman's works then published, but, at the same time Mr. Alexander Butter, Surgeon in Edinburgh, communicated to a Society in that city. "The description of a forceps for extracting children by the head when lodged low in the pelvis of the mother."

"The forceps," he says, "for taking hold of a child's head when it has fallen so far down among the bones of the pelvis that it cannot be pushed back again into the uterus, to be extracted by the feet, and when it seems to make no advances to the birth by the throes of the mother, is scarce known in this country; though Chapman tells us it was long made use of by Dr. Chamberlen, who kept the form of it a secret, as Mr. Chapman also does. I believe, therefore, that a sight of such an instrument—which I had from Dr. Duss, who practises midwifery at Paris, and who believes it to [illegible] not be unacceptable to you, [illegible] nature of it may be of use to [illegible]

In 1742 the use of the long forceps, which appears to have been even then "in general [illegible] was described by Mr. (afterwards Sir) Fleetwood Dixon, who succeeded Dr. Mosse as the second Master of the Dublin Lying-in Hospital. Ould's work is very disappointing, as it contains clear directions for the performance of version as a substitute for craniotomy in certain cases of obstructed labor, for the proposal of which the late Sir James Simpson obtained so much credit a hundred years afterward. Ould also *forestalled a suggestion* made a few years ago by the late Dr. Beatty for preventing impending laceration of the perinæum and rectovaginal septum during labor by incising the perinæum. But on the subject of the forceps Ould merely repeats the directions of former writers. Speaking of labors delayed by disproportion or inertia, where the child is living, "or rather, if there be not a certainty of its death, in this case," he says, "the best adapted instrument is the long forceps, which is in general use all over Europe, wherefore it needs no particular description. . . . Being thus provided, we proceed to the operation by placing the woman on her knees, &c."†

Immediately after its publication, Ould's work was unsparingly attacked by a rival Dublin accoucheur, Dr. Southwell,‡ who printed two pamphlets on the subject—one in Dublin, and the other shortly afterwards in London. In the former he reproaches Ould with being "the youngest surgeon practising midwifery in this city, a man not conversant with authors, and at best, but a novice in practice . . . I shall only add, in general, Mr. Ould is totally ignorant of the regular use of instruments. He entirely mistakes the right use of the large forceps."§

(*To be continued*).

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THE RENAL ORIGIN OF GOUT AND SOME POINTS IN THE TREATMENT OF THE DISEASE.*

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These views chiefly obtain as to the primary causation of gout:—(1) Excess of uric acid, (2) morbid changes in the structure of tissues, whether of an inflammatory, degenerative or necrotic nature, and (3) nervous disturbances. Now uric acid neither can nor does exist in a free state in the blood where it is usually found as the soluble sodium quadriurate $NaH(C_5H_2N_4O_3)$, $H_2(C_5H_2NO_3)$ which is very unstable and after a time combines with the sodium-carbonate of the blood to form the very

* Cases in Midwifery, written by the late Mr. William Giffard, Surgeon and Man-midwife. Revised by Edward Kelly M.D., p. 49. London, p. 1733.
† A Treatise on the Improvement of Midwifery, by Edward Chapman, Surgeon Third Edition, p. 99, London 1736.

* Medical Essays and Observations, Published by a Society in Edinburgh, p. 321. Edinburgh, 1733.
† A Treatise of Midwifery. In three parts. By Fielding Ould, Man-midwife, p 164. Dublin, 1742.
‡ Remarks on some of the Errors in Anatomy and Practice in a late Treatise of Midwifery. Published by Fielding Ould, Man-midwife. By Thomas Southwell, M.D. and Man-midwife, p. 41. Dublin, 1742.
§ A Continuation of Remarks on Mr. Ould's Midwifery. By Thomas Southwell, M.D. and Accoucheur. London, 1764.

* Originally sent to the *Practitioner* and afterwards condensed and specially re-written for the *Indian Medical Record*.

stable and comparatively insoluble sodium biurate, $NaHC_5H_2N_4O_3$, which, if produced in larger quantities than the fluids of the body can contain in solution, becomes deposited in the crystalline form in the various structures by mechanical irritation provoke an inflammatory attack which constitutes the gouty paroxysm.

Whence does this uric acid come? Is it a normal constituent of the blood or does it only appear under abnormal pathological conditions? It is undoubtedly a normal constituent of the urine, from 8 to 10 grains of uric acid being daily excreted by a healthy adult. If this uric acid is not brought by the blood to the kidneys, it must be secreted and excreted by the latter, and if the kidneys failed to excrete all the uric acid they manufactured, it follows that the residual amount must either be retained in the kidneys or be absorbed from them into the general circulation.

If uric acid be absorbed from the kidneys in gout, there ought, in at least the early stages of the disease, to be a deficient elimination of that body in the urine. And so there is. PFEIFFER (*Berliner Klinische Wochenschrift*, 1892, p. 416) found that the quantity of uric acid excreted by gouty subjects was always lower than that excreted by healthy persons of the same age. In the following table are the results, calculated in grammes per 100 kilogrammes of body weight, of the daily determinations made by the author for eight successive days of the total uric acid excretion in the urine of three males, between 40 and 50 years of age, of whom A was perfectly healthy, B was suffering from subacute gout supervening on chronic gout, and C had chronic gout complicated with lead poisoning and recent pain in the right metatarso-phalangeal joint and in both ankles :—

Day.	A	B	C
1 ...	1·105	0·260	0·578
2 ...	1·027	0·263	0·617
3 ...	1·030	0·315	0·665
4 ...	1·376	0·350	0·715
5 ...	1·175	0·442	0·443
6 ...	1·030	0·556	0·372
7 ...	1·252	0·5 6	0·593
8 ...	1·203	0·494	0·594
Average ...	1·148	0·398	0·572

Again, if instead of being formed in them the uric acid is conveyed to the kidneys by the blood, we ought to be able to detect it in the blood; but, as a matter of fact, the blood of man and other mammals in health is always free from uric acid, though urea is always present. In all cases where granular kidney disease is accompanied by deficient elimination of uric acid in the urine, there is always an appearance of uric acid in the blood.

While VON JAKSCH (*Deutsche Medicinische Wochenschrift*, 1890, XXXIII, p. 741), KLEMPERER (*Ibid*, 1895, XXI, p. 655), and the author (*Lancet*, 1897, Vol. I, p. 863) completely failed to find so much as a tiny trace of uric acid in the blood of several healthy persons, Sir A. GARROD met with a like result in the blood of the ox, sheep and pig; but urea was found in *every* sample of blood examined.

Sir W. ROBERTS has shown that the semi-solid white mortar-like urinary excrement of birds consists, (apart from the small quantity of water present) entirely of uric acid compounds, such as the quadriurates of ammonium, sodium and potassium, and that in proportion to their body-weight the output of uric acid by birds is enormous when compared with that excreted by mammals; but not a particle of urea is voided. Then it follows that if this large quantity of uric acid be produced in the organs and tissues generally, it must be conveyed in the blood to the kidneys and should be easy of detection in their blood; but the most careful examination by numbers of observers among whom were the author and Sir A. GARROD, has shown beyond doubt that though the blood of birds always contains urea, it is absolutely *free* from uric acid.

If the view be correct that the kidneys play merely the part of a filter in the elimination of the uric acid from the blood, how is it that the mass of experimental evidence shows that uric acid is never present in the blood of healthy human beings, nor has it ever been found in the blood of birds whose urinary excretion is almost entirely composed of uric acid compounds?

Further proofs of the renal origin of uric acid are furnished by the facts that in all cases of renal disease, and more especially in granular kidney disease and uræmia, uric acid is always present in the blood and deficient in the urine, while uratic incrustation of articular cartilages is not uncommonly found, as shown by the subjoined table at the *post-mortem* examination of subjects of kidney disease who have never been known to suffer from ostensible gout during life —

	Number of cases.	Uratic deposit in joints.
Known to have had gout ...	10	10
Never known to have had gout but whose kidneys were { Slightly granular ...	41	11
Never known to have had gout but whose kidneys were { Markedly granular ...	26	20
Total ...	77	41

The kidney lesion that causes gout is not easy to determine; but the author believes that a functional affection of the kidneys always precedes gouty manifestations, and that this functional lesion, which may be started by various agents and causes (among which are excessive indulgence in nitrogenous foods, wines and *beer*, the toxic effect of lead, and the influence of nervous impulses such as mental shocks, severe accidents, &c.), may subside on the removal of the exciting cause, or it may pass on to a structural lesion which is then of the contracted granular type and may also be transmitted by heredity.

The anatomical seat of the kidney affection is probably in the epithelium of the convoluted tubes, as that is the primary seat of disease in granular kidney and the increase of interatitial tissue is probably a secondary change, while granular kidney is not always evidenced by the occurrence either of albuminuria or of dropsy, and during life there may be no external manifestations of the existence of such renal mischief as the *post-mortem* may disclose.

On the whole, there is abundant evidence showing the direct connection between kidney trouble and gout, since uric acid has always been found in the blood in cases of renal disease, while uratic deposits are frequently found in the kidney and joints of gouty subjects and in the joints of persons with renal disease but who have never been known to have had ostensible gout and kidney mischief is frequently met with at the *post-mortems* of gouty subjects.

The nuclein derivation of uric acid in diseases such as leucocythæmia, pernicious and ordinary anæmia, pneumonia, &c., where considerable amount of uric acid may appear in the blood, is proved by the researches of HORBACZEWSKI, VON JAKSCH, SADOWENJ and FORMANCK, who make it highly probable that in these diseases the uric acid is produced in the system from the nuclein of the disintegrating leucocytes; but no symptoms of gout are developed with or from these diseases, and as the kidneys remain in a sound condition, the uric acid is readily and rapidly excreted by them.

Then there are many facts to support the view that *urea is at least one of the sources of formation of uric acid, and that the change is effected in the kidneys by the* conjugation of urea and glycocine, which latter is a natural product of the human organism and is formed by the decomposition of the glycocholic acid of the bile. This is all the more probable since in the first place uric acid can be made experimentally by the interaction of urea and glycocine. $\left\{\begin{matrix}3\,CH_4N_2O \\ \text{urea}\end{matrix} + \begin{matrix}C_2H_3(NH_2)\,O\,OH \\ \text{glycocine}\end{matrix}\right\} = \left\{\begin{matrix}C_5H_4N_4O_3 \\ \text{uric acid}\end{matrix} + \begin{matrix}3\,NH_3 \\ \text{ammonia}\end{matrix} + \begin{matrix}2H_2O \\ \text{water}\end{matrix}\right\}$ *and in the second place, in the carnivora whose urine contains little or no uric acid, the bile is devoid of glycocholic acid and therefore yields no glycocine.*

Alterations in the metabolism of the liver necessarily affect the formation, excretion and daily elimination of uric acid by healthy individuals, and as variations in the metabolism of the liver are induced by changes in the quality and quantity of food ingested, by the amount of exercise and by various nervous influences, it can be readily understood why liver trouble of some kind or another frequently accompanies gouty dyspepsia, and the fact is explained how several observers, unable to dissociate the connection between liver troubles and gout, have attributed the formation of uric acid to the liver.

The uric acid formed in the kidneys is at once converted into the quadriurates of ammonium, potassium and sodium, and in healthy persons excreted dissolved in the urine from which they sometimes separate, on cooling, as a deposit of "amorphous urates." In gouty conditions these urates are absorbed into the blood, where the sodic carbonate converts the ammonium and potassium quadriurates into sodium quadriurate, which is an unstable salt and is gradually transformed into the less soluble and less easily excreted sodium biurate, which first passes into the hydrated or gelatinous modification, but if it be present in the blood in greater amount than that fluid can retain in solution, it passes with the lapse of time and increasing accumulation into the almost insoluble anhydrous or crystalline condition and is deposited in those tissues (of the connective tissue class) which either on account of having received previous slight injuries or because of their poor vascular supply favor its deposition.

The treatment of gout should aim at (1) checking excessive formation of uric acid in the kidneys, (2) preventing its absorption into the blood, and (3) promoting the removal of uratic deposits by facilitating the elimination of the quadriurate and biurate contained in the fluids of the body.

To check the excessive formation of uric acid, promote liver metabolism and relieve congestion of the portal system by regulating diet and regimen, colchicum and guaiacum, as stimulants of hepatic metabolism, are very useful in many forms of gout. Constipation and the congestion of the portal system may be relieved by occasional doses of blue pill followed by an Epsom salts purge. Or sulphur, guaiacum tablets, or compound liquorice powder may be given if more frequent use of a laxative is needed.

To promote the elimination of the quadriurates formed in the kidneys and so prevent their absorption into the blood is to strike at the primary evil in the causation of gout. To do this (1) promote increased diuresis and (2) diminish the acidity of the urine. Free diuresis should be encouraged by drinking plenty of water. Citrate of potassium is a good diuretic which not only increases the solubility of the quadriurates, but also diminishes the acidity of the urine and should be pushed until moderate alkalinity of the urine is produced.

The removal of uratic deposits and the elimination of quadriurates and biurates from the system may be attained by (1) free diuresis, (2) baths and suitable exercise, and (3) the careful selection of a mixed diet with a fair amount of vegetable food, since the mineral constituents of certain vegetables, such as Brussels sprouts, cabbage, French beans, spinach, turnips and turnip tops, possess to a remarkable degree the double function of inhibiting the conversion of sodium quadriurate into the biurate and increasing the solubility of the latter; but the idiosyncrasy of each patient to various articles of diet must be made the subject of careful observation.

Based as it is on the assumptions that alkalies (1) neutralise the general acidity of the system and render soluble (2) the uric acid present in the blood and tissues, and (3) the biurate deposited in the joints, the plea for the treatment of gout by means of alkalies is certainly erroneous, since (1) KLEMPERER has conclusively proved that the alkalinity of the blood of gout is but very little, if at all, diminished, and that corresponding variations in the alkalinity of the blood may frequently be met with in healthy persons. (2) In gouty people uric acid is never present as such in the blood and tissues, where it is always found combined with sodium as the quadriurate or biurate, and (3) Sir WILLIAM ROBERTS has found that the phosphate or bicarbonate of sodium diminish instead of increase the solubility of sodium biurate, while potassium bicarbonate does not at all influence its solubility.

Dr. HAIG'S sodium salicylate treatment is open to the objection, that though it does cause increased elimination of uric acid in the urine, it unites readily with glycocine to form salicyluric acid and thus brings an increased amount of glycocine to the kidneys where it combines with the urea necessarily from an increased amount of uric acid.

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RENAL CALCULUS.*

BY J. H. MUSSER, M.D.,
Assistant Professor of Clinical Medicine of the University of Pennsylvania.

IN referring to the clinical aspects of renal calculus, which ought rather be called "nephrolithiasis" or better still, "stone in the kidney," I have to call attention to features which, coming within my experience, are essential in the diagnosis, though they are somewhat at variance with text-book teachings.

The symptoms ascribed to the presence of a calculus in the pelvis of the kidney are pain, intermittent hæmaturia,

* Read before the Buffalo Academy of Medicine and specially reported for the *Indian Medical Record*.

pyuria, pyelitis, renal intermitting fever, frequent micturition and renal colic; but here is a huge dendritic calculus, which filling the pelvis and calices, so as to form a complete mold of the cavity of his kidney was discovered in the dissecting room in the body of an aged negro who died in the Philadelphia Hospital in 1887, of debility, but neither had any determinable organic disease nor complained of pain, pyuria or any other symptoms of renal calculus during the many years this stone was slowly growing to its present size.

Looking up my notes of 40 cases (29 in private and 11 in hospital practice) I find that while the youngest patient I treated was 25 years of age, the oldest was 69, and the ages of the remaining 38 cases ranged from 35 to 55. 21 only of these 40 cases were females, though most authorities hold to the preponderance in women, the ratio being 3 females to 1 male.

Pain is of more diagnostic significance in renal calculus than in any other renal affection; but it must be studied closely to determine its value, since pain over the kidney behind and along the margin of the ribs anteriorly may also be due to renal hyperæmia, nephritis, pyelitis, tumours, malignant disease, and myalgia of rheumatic or other causation than renal calculus, where pain comes and goes, and is more commonly intermitting and paroxysmal, though it may frequently be constant and localized in the kidney region or anteriorly along the margin of the ribs below the gall-bladder region and remote but related areas and nerve-courses may join in the pain chorus, whose very vagaries (like the flitting nerve-aches of hysteria with which it must not be confounded) render it one of the most valuable signs of renal calculus. Remember also that the pain be aggravated by the function of menstruation and even bear close relationship to it.

Hæmaturia is the classic, most constant and positive symptom of renal calculus, but other causes of hæmaturia exist and are well known. Thus during the past six years 2,923 samples of the urine of 1,997 persons were critically examined with the result that blood was found 364 times in the urine of 264 of these persons, and these 264 were suffering from :—

Acute Bright's Disease	18	Goitre ...	... 1
Anæmia	5	Gout ...	.. 8
Appendicitis ...	1	Jaundice ...	... 1
Arterio-Capillary Fibrosis...	... 19	Neurasthenia	... 5
Bright's Disease (chronic)	... 24	Pneumonia	... 5
Bronchitis ...	1	Pregnancy	.. 17
Cardiac dilatation or Valvulitis	... 13	Rheumatism	... 28
Catarrhal Fever ...	9	Renal Calculus	... 28
Diphtheria ...	1	Tonsilitis	... 1
Erysipelas ...	1	Tuberculosis	... 2
Gastric disorders ...	35	Typhoid Fever	... 5
Gastro-intestinal catarrh	1	Unknown	... 20
		Vesical Disease	... 17

Therefore must we look to the accompaniments of the disease rather than to the disease itself to explain the hæmorrhage as it not infrequently happens that the trauma from the discharge of the urinary salts accompanying affections such as gout, rheumatism, &c., is sufficient to produce bleeding. Blood cylinders, though they denote hæmorrhage from the renal substance, are rarely, if at all, present in renal calculus. Bloody urine may arise from various sources and its presence is not of any particular significance during the violent throes of an attack of pain during the presence of fever or of any abdominal disorder disturbing the balance of the circulation, while in a middle aged person with uric or oxalic acid tendencies, by virtue of heredity, occupation and habits, in whom no cause for the hæmorrhage can exist in the bladder, prostate or urethra, the chances are that it is of pelvic origin due to the irritation of gravel or of urine densely loaded with salts. If in the absence of heart disease, blood-dyscrasia or other extraneous condition cause it, the hæmaturia still persists when the patient is put at absolute rest, the hæmorrhage is more likely of a cancerous or tuberculous origin, and KLEMPERER (*Deuts. Med. Week*) who calls attention to hæmaturia of the healthy kidneys as the result of over-exertion on horseback or bicycling, found it also present in 4 cases of hæmophilia and a group due to an angioneurosis. The reaction of the urine must be borne in mind and all other possible factors for it carefully eliminated before coming to a conclusion that the hæmorrhage is of renal origin. Cystoscopy must be resorted to and ureteral catheterization.

Pyuria is looked upon by all authorities as almost essential to the diagnosis of renal calculus; but I disagree with them, and believe that pyuria is not present except as an accidental complication from infection either before the stone has obstructed the ureter, or from infection extending from below upwards.

Albumin, which is of frequent occurrence, neither implies a co-existing nephritis nor does its presence, whether alone or with the co-existence of casts, deter one from surgical interference in a case of uncomplicated renal calculus. Nor should larger amounts deter one if pyelitis be present.

Casts infallibly point to calculus if they are long, narrow, hyaline and persist without other kinds, in the presence or absence of albumen.

The *specific gravity* of the urine is a cogent aid to diagnosis, and its persistence above the normal enables one to exclude renal cirrhosis, hysteria or a renal neurosis.

Frequent micturition without tenesmus is *not* indicative of stone in the kidney

Paroxysmal Renal Fever rarely occurs, but when present, may be due to (1) calculus, (2) absorption of retained products if the kidney is floating and becomes twisted or (3) pyelitis.

The diagnosis of renal calculus requires great patience and care, and is greatly assisted by careful investigation of the *family history* and the *duration of the symptoms*. As it is not impossible that healthy kidneys are too often operated on or the kidney of the wrong side cut down upon because the case was not carefully studied over a long period of time, I plead for delay and patient study of the every-day phenomena with the every-day means at our command, though the occurrence of an accident such as obstruction demands prompt action. However, if care be taken, a correct diagnosis may be established by the symptom-complex of pain, local tenderness, persistent hæmaturia, albuminuria, casts, renal colic and *passage of fragments of stone.*

I have had no experience with ureteral catheterization and exploration; but I agree with HOLLANDER that we can do without their diagnostic aid in the majority of cases and thus avoid the danger of infection from below. Of course if we had a CASPER, a KELLY or a MANN, whom we could conjure up at a moment's notice to do the catheterization for us, it will be well enough; but to trust such a highly risky and dangerous means to the general practitioner would be to court a repetition of the disasters from uterine specula and uterine sounds.

In the hands of well experienced manipulators the Roentgen rays will, in many cases, disclose the presence of stone, and while I am well satisfied with the use of rain water, diet, exercise and other hygienic lines of treatment followed, I am also in accord with the indications laid down in the works on surgery (such as pain that disables, obstruction and pyelitis demanding surgical intervention), but for all that I unhesitatingly am against all operative measures, unless a diagnosis is *fully* established, which can be done if we take time and view broadly.

A MIRROR OF PRACTICE.

A CASE OF STRICTURE OF THE PYLORUS IN WHICH GASTRO-ENTEROSTOMY WAS PERFORMED WITH THE USE OF A MURPHY BUTTON.

By W. J. Wanless, M.D.

Missionary Physician. In charge Miraj S. M. C.

Hoosain, J., Mahomedan aged 35, occupation hamal, family history negative. For two years suffered from flatulence, pyrosis, pain in the epigastrium of a dull aching character and radiating over the sternum and occasionally through to the back and always exaggerated by eating and relieved by vomiting. No history of hæmatemesis or intestinal hæmorrhage. During first year of his illness was treated in a State Dispensary for "liver" and dyspepsia, but without relief. Before entering this hospital he was treated in the out-door department for upward of a year. During this time, gastric stimulants, sedatives, restricted and regulated diet were all used in turn or in combination but with only temporary relief. Emaciation continued in spite of all treatment, and the patient was finally admitted as an in-patient on the 3rd January 1898.

Condition on admission.—Strength poor; able only to walk a few steps unaided; emaciation marked; weight 98 lbs.; pulse 60, good volume; anæmia very slight; tongue slightly coated with light fur; appetite poor; fears to eat on account of distress caused by food; ingestion of food always followed in from two to four hours by flatulence, eructations and pain in the epigastrium; bowels slightly constipated; chest examination negative; liver and spleen not perceptably enlarged: epigastrium distended. Distension of stomach by air and water shows lower border 10 below umbilicus. Gastric peristalsis visible through the abdominal wall. A test meal showed undigested particles of rice and native bread 30 hours after ingestion. Free hydrochloric acid present in the washings six hours after a meal. Urine scanty, 24 ounces in 24 hours; S. G 1030. No albumen or sugar.

Diagnosis.—Benign stricture of pylorus with gastritis. The patient was put on a liquid diet for some days. Lavage of the stomach was practiced daily with hot water at a temperature of from 110 to 115, a gallon being used on each occasion. Strychnine in full doses was also administered together with small doses of belladonna. At the end of eleven days the patient's condition improved. His temperature ranged between 97 and 98°F. Operation was now advised and gladly accepted.

14th January.—The patient's bowels having been freely moved two nights previously with calomel and magnesia, and the abdomen prepared by scrubbing with brush and green soap, shaved, lathered with chloride of lime and washing soda, washed with boiled water, and a towel rung out of 1 in 500 bichloride bandaged on the abdomen and lower chest over night, the patient was ready for operation.

Operation.—I was assisted by Dr. A. S. Wilson and the native hospital staff. The legs and chest were wrapped in flannels and hot water bags applied to the lower extremities. All instruments and towels, etc., used (used dry) were sterilized by heat. The [illegible] removed, the abdomen and lower portion of the chest were wiped with alcohol and sterilized water. A [illegible] median incision extending from within 1 inch of ensiform cartilage was made and the abdominal cavity opened. The stomach (which immediately before operation had been thoroughly washed out with boric acid lotion) presented. Examination showed the viscus to be large and the lower border flabby and extending to midway between enciform cartilage and umbilicus. The pyloric extremity was found to be hard and thickened; the thickened portion extended about 2 inches into the duodenum. No nodules were present, and no enlarged mesenteric glands were discovered. The colic mesentery was considerably thickened and its vessels greatly distended, due, no doubt, to the pressure of the constantly loaded stomach. The stomach itself was not abnormally congested; the liver and spleen were not enlarged. A loop of small intestine was now sought for and followed up to the duodeno-jegunal angle, a little below which point a Murphy button, (the largest size) was now placed in the usual way for lateral anastomosis, and held in place with an ordinary artery clamp. The stomach was now brought up through the opening and into the abdominal wound, and a site free from large vessels chosen, the incision made, the other (female) half of the button was inserted and the anastamosis completed. A backing up whip stitch of fine silk was run around the button to ensure additional safety. During the anastamosis the peritoneal cavity was shut off by means of gauze packed around the bowel and stomach. The abdomen was closed in two layers; continuous catgut being used for the peritoneum and interrupted silkworm gut for the remaining structures. Acetanilid was dusted over the line of suture, iodoform and bichloride gauze, sterilized cotton wool and a binder completed the dressing. The operation lasted 70 minutes, a considerable portion of which was consumed in preliminary examination of organs adjacent to the stomach and in determining the cause. Pulse was 85 at the close and there was no shock. The patient retched well. He was fed entirely by the rectum for the first 48 hours, and subsequently by the stomach and rectum for two weeks; the amount of nourishment by the mouth being gradually increased. After this time nourishment per rectum was discontinued.

Following the operation the temperature rose three times to 100·5 on the fourth to the seventh day. After that it continued subnormal for a week and finally rose to the normal point. The stitches were removed on the ninth day, the wound having healed by first intention. Two small stitches subsequently gave way, but in no way effected the line of union. They healed in a few days under appropriate treatment. On the sixteenth day at noon the patient was suddenly seized with an attack of acute pain referred to the umbilical region, which was followed by vomiting, projectile in character. Some 60 ounces of bile-stained liquid was vomited, followed by relief from the pain but resulting in marked exhaustion. The whole abdomen, which a few minutes previously was fairly distended, was now markedly scaphoid and placid. Palpation of its contents failed to reveal the site of the button. The patient was surrounded with hot water bags,

[illegible] subsequently the 24 hours by hypodermic and belladonna by the mouth. He reacted promptly and after feeding per rectum for 24 hours, nourishment by the mouth was again resumed. Twelve days later the patient had another attack very similar to the one described above but less severe; the fluid vomited on this occasion (1 quart) being of a dark greenish color.

From this the patient gained steadily. He has been entirely relieved of his gastric distress; takes his meals with relish, and at the time of dismissal, on 4th April 1898, had gained some 20lbs. in weight and has since returned to his duties in the service of the Miraj State.

The button has not yet passed through, a silk ligature, 6 inches in length, knotted, was attached to the proximal half of the button with the hope of preventing from its falling into the larger viscus (the stomach) which sometimes happens with the Murphy button. From the sensations experienced by the patient, that of something dropping to one side, when he suddenly turns on his left side, I believe the button to be still in the stomach.

An interesting point might be raised as to the cause of the projectile vomiting on two occasions, on the 16th and 28th days after the operation. I am inclined to think it was due to the temporary occlusion of the new gastric intestinal opening by the partial dislocation of the button or the turning of the button on itself on its long axis so as to place the open ends of the button against the walls of the new orifice and thus stopping the open ends of the button as well as the newly-formed orifice. The stomach being distended, pressure by it upon the loop of intestine involved in the anastomosis would also prevent fluid passing through the pylorus beyond the point of anastamosis, and hence the above result.

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A CASE OF DEPRESSED FRACTURE OF THE SKULL.*

By Surgn.-Lieut. Clayton A. Lane, m.d., Lond., I.M.S.
Jullundur.

About noon on 17th August 1897, while the 18th Bengal Lancers were encamped at Kushalgarh on their way to Kohat, a sowar was kicked on the head by his horse and was brought to the hospital tent. He was insensible, answering no questions. His pulse was irregular and very easily compressible; his pupils were neither contracted nor dilated and were equal. Crossing the centre of the left eyebrow and running upwards and inwards for an inch was a wound leading down to the periosteum. Above and inside the upper end of this wound a depression could be seen and felt through the skin, and on putting a finger into the wound a fracture was felt starting near the middle of the upper edge of the orbit and curving upwards and finally outwards across the temporal ridge, where it was lost. The curve had a radius of about an inch and the portion of bone in its concavity was depressed, the greatest depression being along the line of fracture, where it amounted to ½ inch. The man's condition seemed to me to be so critical as not to justify my waiting to operate till water could be boiled and cooled, though also water I should have to use came from a dirty tank near the camp. Accordingly [illegible] (1 in 40) for twelve and using, the instruments provided in the field surgical panniar. On starting to enlarge the wound upwards the patient began to struggle, so the hospital assistant gave him chloroform. After trephining and inserting the elevator the depressed bone sprang at once into position and remained there. The bleeding vessels were twisted, not tied, and the skin was sewn up with silver wire without any drain. During the operation he stopped breathing, the pulse being still felt at the wrist, but after artificial respiration had been continued for some minutes he began to breathe again. With the thermometer at over 100° F. in the shade the cessation of artificial respiration was an even greater pleasure than usual. 20 minims of spirit of ether were injected after the operation and he shortly revived. In the evening his temperature was normal and his pulse was 100. The patient was sensible and had no pain.

The question of after-treatment was a most anxious one, as the regiment was to march next day, but after grave consideration I determined to have the patient carried with us on the two marches to Kohat, 30 miles in all, for at that time the chances of his obtaining efficient medical aid at Kushalgarh were more than remote. He was carried in a *doolie* by Kahars, starting at 4.30 A.M. each day and getting into camp before the heat from the sun was great. On the evening of 18th August, his temperature was 100° F., but the wound looked perfectly healthy. On the 19th his temperature was normal and he was quite free from any pain. I left him at Kohat and subsequently heard from Surgeon-Captain Bamfield that he never had a bad symptom. He rejoined the regiment about six weeks later. In February last, six months after the operation, the patient told me that he had been quite well since he rejoined the regiment and had had no headache. He had been doing his duty satisfactorily and had not been ailing in any way. There was a slight scar 1½ inch in length above his left eyebrow and on the site of the fracture was a prominence giving the impression that the previously depressed bone had been too much elevated. Where the pit of bone had been removed there was a slight depression and its area, too, was small.

The fact that the wound remained aseptic was probably due to the following reasons, at least in part. So far as the water went, either the carbolic acid was effectual in sterilising it sufficiently to enable the leucocytes to do their work easily or the micro organisms it must have contained were not pathogenic, or if they were so, they were not educated to virulence. The silk supplied in the field equipment is not kept in an antiseptic solution and cannot be kept surgically clean, and I do not believe that silk can be sterilised by a few minutes' soaking in carbolic solution. I accordingly avoided it, twisting all vessels. Before using the silver wire for suturing I rubbed it thoroughly with a clean cloth, hoping that in this way I might be able to get it almost surgically clean, just as one can clean the outside of a catheter. The measures used to cleanse it were probably effectual, for no stitch-abscess resulted.

The case seems to show with particular force the well-known fact that when in the field and away from a contaminated hospital building (as all hospital buildings tend

*Reproduced from *The Lancet* by request.

to become) operations can be successfully performed without all the precautions necessary in a fixed hospital; and though that, of course, is no cause for not taking every precaution which can be taken, still it shows that under these circumstances the risk of septic infection is less than it appears to be, and that it is justifiable, if not an actual duty, to make an attempt to save life even though the surroundings may appear far from favorable.

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THE SCHOTT TREATMENT OF CARDIAC DISEASE.*

By Kenneth Stewart, M.D.

Chapel Street, London, S. W.

A review of certain cases of cardiac disease which have been treated at Nauheim, or by the Nauheim method, without benefit, leads me to venture on a discussion as to the *rationale* which governs that treatment.

It is now generally accepted that a portion of the change in the area of cardiac dulness and in the position of the apex beat is due to the altered relations of the lungs and diaphragm to the heart which result from the treatment. There is, however, a real reduction of the capacity of the heart in those cases which receive benefit.

I find that among the numerous explanations which have been advanced to account for the contraction of the organ there is one assumption in common—that there exists some specificity in the Nauheim waters residing in the salts contained therein. I venture to maintain that there is a law of hydrostatics involved which has been altogether disregarded.

The principle to which I allude is the complement to the principle of Archimedes, that "a body immersed in a liquid loses a portion of its weight equal to the weight of the liquid displaced." "Every body immersed in a liquid is subject to a resultant pressure equal to the weight of the liquid displaced." If a body float on the surface of a liquid, the pressure on the immersed portion of that body equals the weight of the body. If a human body be floated in a bath of water, the pressure exerted by the water on the skin and underlying structures equals the weight of the subject.

The result in the case of a living subject is the application of massage to the immersed portion of the body by hydraulic pressure. The effects may be enumerated as follows: (1) Compression of the vessels (arteries, veins, and lymphatics) in all tissues unprotected by the bony skeleton; resulting in greatly increased resistance to the heart's action in circulating the blood, with propulsion of the lymph and venous blood towards the cavities protected by the bony skeleton. (2) The reflex effect on the heart (retarding it) through the splanchnic nerves, dependent on increased pressure on the abdomen from without. (3) The ascent of the diaphragm in response to the increased abdominal tension, a consequent diminution of the long axes of the lungs, an increase in the short axes of the lungs, and a displacement of the heart upwards (resulting in alteration of the relations of the heart and lungs). (4) A reflex action of doubtful existence and degree from the cutaneous nerves. (5) The influence of the temperature of the water in which the body is immersed, varying with its degree.

I do not refer to the other portions of the Schott method; they are "exercises," and have no pretensions to being anything more.

We have evidently in the Schott treatment a new demonstration of the old truth that exercise is beneficial in some forms of cardiac disease, and it is highly doubtful if we have anything more. The balneological treatment is doubtless an ideal one for some cases; the exercise can be perfectly graduated, respiration is free, and the cardiac beat is well regulated from the splanchnic area—but it may be potent for evil as for good.

There is another lesson to be learnt from a study of the law of hydrostatics referred to, namely, that there are many cases of heart disease which should never be subjected to the strain involved on the organ by immersion of the body in a bath.

*Reproduced from the *British Medical Journal* by request.

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CASES OF BULLET WOUND.*

(Under the care of Surgeon-Major W. C. T. Poole, M.B. F.R.C.S.I., A.M.S.)

British General Hospital (No. 3) Nowshera, Punjab.

Case I.—*Bullet Wound of Left Elbow received in Action in Tirah: Joint Disorganised: Recovery.*—Private S., aged 26, seven years' service, Oxfordshire Light Infantry, was wounded in the left arm on 30th December 1897, during a rear-guard action in the vicinity of the Khyber Pass, about five miles from Lundi Kotal.

The bullet entered the flexor aspect of the left forearm, about 2 inches below the elbow, and came out about 2 inches above the joint on the anterior surface of the arm, fracturing the upper third of the ulna, and disorganising the joint as it passed. He was at first removed to one of the Khyber villages, and afterwards to the field hospital, where the olecranon process of the ulna was excised.

He was transferred to No. 3 British General Hospital, Nowshera, on 7th January 1898. On arrival he was in a very weak and anæmic state; the arm was greatly swollen and œdematous, and both wounds were in a septic condition. Shortly after admission secondary hæmorrhage set in from the upper wound, probably from a branch of the superior profunda artery. It was promptly controlled by a boracic compress and bandage.

Treatment.—The wounds were washed out with a solution of mercury perchloride, 1 in 1,000, and the injured part freely dusted over with boracic acid, covered with boric lint and wool, and the arm placed in a poroplastic splint. All inflammatory action rapidly subsided, and the wounds assumed a healthy appearance. He regained partial use of his arm, and was discharged from hospital and invalided to Netley on 16th February 1898 forty-eight days after admission.

Case II.—*Bullet Wound of Face received in Action in Tirah: Recovery*—Private W. C., age 22, service four years, King's Own Yorkshire Light Infantry, was wounded in the face whilst out reconnoitering in the Shin-Kamar Pass in Tirah on 29th January 1898. He was in a stooping position at the time, with his head inclined to the left, in the act of picking up a wounded comrade. The bullet entered the right side of the upper jaw, close to the right ala nasi, passed through his mouth, and came out below the ramus of the left jaw, fracturing the inferior maxilla, and bulging out a small portion of the digastric muscle as it passed. It then entered the upper part of the chest, close to the outer end of the clavicle, and came out in the axilla.

He was transferred to No. 3 British General Hospital, Nowshera, on 14th February 1898, sixteen days after receipt of the injury. On arrival, he was in a weak state, the upper lip and tongue were greatly swollen, his powers of mastication were interfered with, and he was unable to open his mouth wide or to articulate distinctly. Both wounds in the chest were small, but discharged pus freely.

The wounds were washed out with a solution of mercury perchloride, 1 in 1,000; afterwards dusted with boracic acid and boracic wool applied. He made a good recovery, and was discharged. He was invalided to Netley, 16th March 1898, thirty-two days after admission.

* Reproduced from the *British Medical Journal* by request.

THE

Indian Medical Record.

1st July 1898.

DRAFT BILL FOR THE AMENDMENT OF THE CALCUTTA MUNICIPAL ACT.

It is well known that Dr. W. J. Simpson, late Health Officer, believed that a new Building Act would inaugurate a new era in the sanitary history of Calcutta; certainly the "Draft Bill for the Amendment of the Calcutta Municipal Act," drawn up by the Commission appointed to consider what amendments are required in the law relating to buildings and streets in Calcutta, should go far to realising his expectations, if its provisions are found to be workable, and are properly enforced.

The draft Bill before us is divided into nine chapters as follows:—

1. Preliminary.
2. Streets and Municipal Land.
3. Building Regulations.
4. Bustees.
5. Privies, Latrines, Urinals, etc.
6. Acquisition and Disposal of Land and Buildings.
7. Miscellaneous Provisions.
8. Demolition, Alteration and Stopping of Work.
9. Penalties.

Under Chapter 2, the fullest powers are given to the General Committee in all things pertaining to streets as follows: Sec. 8. The General Committee, with the sanction of the Corporation, may—

(*a*) lay out and make new streets;

(*b*) construct new bridges and sub-ways;

(*c*) turn, divert, discontinue or permanently or temporarily close any public street or part thereof; and,

(*d*) widen, open, enlarge or otherwise improve any public street.

Sections 9 to 19 deal with the modes of procedure in each of these cases.

Sections 20 to 23 deal with private streets, and gives the General Committee power to enforce their being properly levelled, paved, metalled, flagged, channelled, sewered, drained and lighted, as well as laying down provisions for the level, width, and height of buildings abutting on any new private streets that may be constructed.

Sections 24 and 25 deal with the acquisition of land. Sections 26 to 30 with prohibitions and directions with reference to the construction of verandahs, balconies, sunshades, weather frames, etc.

Section 30 gives the power to construct Bye-laws, when found necessary, in the carrying out of these matters.

Sections 31 to 34 deal chiefly with the size, shape, situation and drainage of building sites.

Sections 35 to 40 with buildings generally; wherein power is given to regulate future erection of certain classes of buildings in particular streets or localities; thus the erection of buildings of the warehouse class, or if huts will not be allowed without special sanction, while the elevation and construction of the frontage of all masonry buildings must be suited to the locality in respect to their architectural features.

Sections 42 and 43 are long and important sections; they detail clearly and adequately all the requirements for the construction of dwelling houses. Not more than two-thirds of the site may be built over; all walls must have a damp-proof course; every room must be open to the outer air; the size and ventilation of inhabited rooms is prescribed; the area, width, and level of the inner court yard is laid down; no rooms are to be built over privies; and a certain open space about all houses is insisted on.

Councils of perfection are here found in plenty, if they are carried out, Calcutta will, in some future day, present a very different appearance to what it does at present.

Sections 46 to 59 deal with applications for approval of sites for, and for permission to erect, re-erect or materially alter masonry buildings. Any person wishing to do any of these things must get the permission of the Chairman and supply him with the fullest particulars.

Section 56 lays down the grounds on which permission may be refused.

Sections 60 to 63 provide for the supervision over erection, re-erection and material alteration of masonry buildings.

Sections 64 to 73 discusses the provisions applicable to huts hereafter erected, re-erected or materially altered, the sizes of passages, courtyards and spaces between huts is carefully defined.

Chapter IV. Bustees.

Sections 79 to 98 deal with the improvement of bustees. Power is here given to the General Committee to call upon the owners to prepare a standard plan of the bustee showing the manner in which the bustee should be laid out; if the owners do not comply within 60 days, or prefer to have a plan prepared for them, the General Committee shall prepare the plan.

During the preparation of the standard plan all building will be stopped, and all future building must be in conformity with it; the General Committee may further, on paying compensation, require the owner to take down any hut not fulfilling the conditions of the standard plan and may force the owner to construct drains, privies, passages, etc., and to deal with any tanks as prescribed.

Should this procedure appear to be too dilatory, in view of the insanitary condition of the bustee, the General Committee may direct two medical officers to report upon it, to provide a plan, and to certify which of the improvements required to bring the bustee into conformity with such plan should be taken in hand forthwith, in consequence of the unhealthy condition of the bustee and which may be deferred. Six months is given to the General Committee to approve this plan, and then they may require the owners to carry out the necessary improvements. If the owners do not comply, the Committee take the matter in hand.

Sections 99 to 108 are quite new and deal with the re-allotment of bustees. The Commission say:—"As far as we can see, they are likely to work well in practice, but we think it very desirable that public opinion should be specially united with regard to them."

Section 99 says:—"The Corporation, at the instance of the General Committee, may give public notice of their

intention to realise the land comprised in any bustee, or in any portion of a bustee within in contained between streets so as to form a block." A ground plan must be proposed and a copy sent to each of the owners.

The chief difficulties likely to occur, and to obstruct the Corporation in this laudable endeavour will doubtless be in connection with the questions of estimated value, the re-division of the re-allotted bustee amongst the different owners, and the question of compensation.

The owner, if dissatisfied with the valuation of his plot, may apply within a month to the Chief Judge of the Court of Small Causes. His judgment shall be final.

When a re-allotment plan has been finally adopted for any bustee or block, the General Committee shall cause the huts thereon to be removed at the cost of the Municipal funds.

The procedure appears to be as follows :—

1. The plan is to be prepared by the General Committee.

2. The Corporation gives public notice of their intention.

3. On the publication of this notice, a copy of the plan is to be sent to each of the owners, together with a notice requiring him to appear before the Committee within a month if he is not satisfied with the valuation of his property.

4. The Committee, after hearing all objections, shall serve a notice specifying the valuation arrived at.

5. If the owner is still dissatisfied, he may within one month apply to the Chief Judge of the Court of Small Causes.

6. When the value has been settled, the re allotment plan shall be prepared.

7. It shall then be carried out by the Corporation removing the existing huts.

It appears from this, that the time required to introduce such a radical change as to sweep a whole bustee off the face of the earth, is two months plus the time required for the construction of the plans.

Chapter V. deals with privies, latrines, urinals, etc, and comprises Sections 109 to 125.

All these sections are of the greatest importance, but it will not be necessary to review them in detail; they lay down regulations for the site; access from the street; ventilation; drainage and construction of floors; distance from water supply or tank.

Section 119 lays down that "all privies and urinals shall be under the survey and control of the General Committee as regards their site, materials, dimensions and construction, and powers are given to the Committee to enforce their requirements.

The working details of Bills of this description are notoriously difficult to carry out, they clash with many interests, and the general unwillingness of house owners to spend money on their property affords a fruitful source of obstruction; the law is involved and its delays are proverbial. A strong governing body is however all that is required, and we trust that Calcutta may be fortunate enough to find itself possessed of such a one.

IS QUININE A UNIVERSAL MALARIAL SPECIFIC?

Dr. J. G. Van Marter of Savannah, U.S.A., publishes some important observations on "Quinine in Malaria, excluding the Simple Intermittents," in *Gaillard's Medical Journal*.

"There is a vast difference," he says, "between the action of quinine in the intermittent malarial fevers and its action in the continued malarial fevers."

He considers that it is "high time that a protest be issued against the general acceptance of the views of Osler, Thayer and other northern clinicians on the specificity of quinine."

"Under quinine the forms of the ordinary cycle of development, disappear rapidly from the peripheral circulation, but the crescentic and ovoid bodies remain a much longer time, sometimes even for months."

"Osler, Thayer, Councilman and others in the North speak truthfully when they say that quinine is a true specific against the malarial parasite and the malarias which have come under their observation, but these gentlemen have not studied malaria in its true home, in a climate fitted for the development of the most virulent parasites, with infections occurring the year around. In such climates, he holds, that quinine is useless as a prophylactic, as it cannot be taken indefinitely the year around in doses sufficient to kill the parasite as fast as it develops."

"Now, coming to the treatment of malaria (and, of course, I am always speaking of the severe infections and leaving out of the question the intermittent fevers), is quinine a true specific? No, there are cases innumerable in which the patient would die, did we not add other potent drugs to our quinine, or for a time at least attach more reliance on other drugs than quinine, that we are inevitably led to the conclusion that although a true specific against the plasmodium of tertian and quartan fever, it is not a specific or antidote to the parasite of the more severe continued malarias and the toxines generated by them. With patients in whom the microscope has shown the disease to be malaria in any of its forms, quinine is a specific in all those with intermissions or with marked remissions; not so, however, where the fever is continued, or in those malarias with but little temperature.

"Dr. Plehn, a German physician practising in the Cameroons on the West Coast of Africa, and in what is probably the most malarious region of this earth, has observed that quinine is a good preventive and the best for treatment in new-comers and those not long resident in that region, but in spite of 5 grains per diem, practically all foreigners get the fever, and the large majority die of it sooner or later.

"In all these cases, with the exception which I shall hereafter note (the hæmaturias) quinine is given in enormous doses, with calomel (which, by the way, is never omitted) and stimulants, but while the actual paroxysm is overcome by the quinine (if the case be seen in time, or not too malignant), the spleen remains large, the crescents remain in the blood, and malarial anæmia sets in.

"This observation shows—

"(1). That quinine is a specific against the protozoon of tertian or quartan malaria.

[illegible] in addition, that is to say, the development of this [illegible] pernicious malaria, but does not kill it; [illegible] with quinine constantly taken, prevent [illegible] every time the patient catches cold, or is exposed to a particularly severe contagium.

"(3). That quinine alone has no action on the toxine produced by grave malarias over which calomel has twice the potency (at least in full physiological doses).

"(4). That quinine, even as a prophylactic, cannot be indefinitely taken.

"(5). That quinine has no effect whatsoever on malarial anæmia (really a chronic toxæmia).

"Still another variety (more correctly complication) of malaria, hæmoglobinuria, is made worse by quinine. I believe that the great majority of those practising in countries where severe malarias exist, will confirm the observation that quinine makes it worse. THAYER admits that quinine never shortens an attack of hæmoglobinuria, but says it prevents a recurrence—this latter being an assertion without any warrant of experience, and I know it to be wrong. Quinine is a frequent cause of hæmoglobinuria, and after one attack, if quinine be taken, is very apt to cause the condition which THAYER says it will prevent.

"In my experience the cases of malaria (as proven by the microscope) in which quinine failed to cure—hence did not act as a specific—have been confined to two types. First, and most common, severe malaria subcontinua typhoides (an æstivo-autumnal form), where the fever ran along for days with very slight remissions, and second, those irregular forms, sometimes seen where, with undoubted malaria, the fever of a continued type is low, seldom above 102, the symptoms presented are those of a profound toxæmia resembling uræmia; suppression of urine, jaundice, delirium, subsultus, without chills or paroxysms of any kind

"I will observe here that there are cases of both types, above mentioned, that would surely die, did we not add other drugs to our quinine, and that a large proportion of cases for a time at least are better off without it We must recognize that in these types we have a toxæmia to deal with, and it is just this toxæmia which I claim is unaffected by quinine

"In treating these very severe malarial toxæmias as we see them in the country or plantations just out of town, or if nearer, only in the suburbs, or on river sailors, we are placed at a great disadvantage as regards doing the best possible for our patients. Perhaps in these very cases if our patients could be moved away from an atmosphere whence constant reinfection is taking place, and taken to a grand hospital like the Johns Hopkins, in Baltimore, where the poor even can obtain luxuries, and under skilled trained nursing, perhaps in such cases quinine might help our patient, if proper eliminative treatment were added, (for it would not without it); but how is it with us, the patient in a miserable hut, or poor farm house, not a bath tub for miles, no clean bed linen, no decent drinking water, no chance of proper food or good nursing, and an unutterable opposition to hospitals in general. It is in these cases that we have to practise, for it is only amongst such that we see most of our severe malarias, and if quinine were a specific, they would all be cured before we ever saw them. They all take plenty of quinine dissolved in water, and with it calomel.

"I have tried, in the severer cases, quinine intravenously, and must say that it does not well, that it is the only way to give it in the severest forms, but it does not shorten the course of the fever; it seldom breaks it up, as it should if it were a specific.

"There is one way of giving quinine by the mouth, of particular efficacy in many of the severe malarias, and that is WARBURG'S tincture, and, to my mind, it is a most excellent medicine."

CONCLUSIONS.

"1. As a preventive quinine will not do for those who are compelled to live indefinitely in a severe malarial climate; in time acting as a vaso-motor poison.

"2. Quinine acts nearly as a specific in all malarial fevers characterized by intermissions or well-marked remissions, but fails in the continued fevers, those with typhoid-like symptoms, those malarias without temperature, and the cachexias and anæmias due to malaria.

"3. Proving thus that quinine is a poison to the plasmodium itself, but useless against the toxine manufactured by it.

"4. That WARBURG'S tincture in the last condition has an action not yet understood, on the toxine (or the eliminative system) by which the system is put in a condition to benefit by quinine.

"5. That quinine should never be used in hæmoglobinuria, or given subsequently, to one who has suffered from it, being liable to bring about a recurrence of the condition.

"6. Only those living in regions of severe malarias can become competent to settle these questions pro or con"

A perusal of Dr MARIEN'S interesting paper suggests to us the following —

There are two generally acknowledged tests for doubtful cases of malaria—one the finding of the plasmodium in the blood—the other, the effect of quinine upon the course of the fever.

It appears, however, that there is a large class of cases where the plasmodium is found in the blood, and yet where quinine has no appreciable effect.

From this it follows either—

(1) That the plasmodium is found in cases which are not malarial; or

(2). That quinine is not a universal malarial specific

We believe that plenty of malarial fevers are met with in such stations as Mean Meer and Peshawar, which are not amenable to quinine; these would provide excellent material for interesting clinical observations.

We have heard of regiments leaving Peshawar, at the beginning of the cold weather, in the usual course of the annual reliefs, which were to all appearances saturated with malaria and quite unfit for any arduous duties, yet which completely recovered their health under the invigorating influence of daily marches and the exposure to fresh air.

MANSON'S MANUAL OF THE DISEASES OF WARM CLIMATES.

Dr. PATRICK MANSON, M.D., LL.D., has succeeded in so thoroughly identifying himself with English tropical medicine, that a book from his pen is, *a priori*, certain of a wide welcome; and it cannot be said, for the reputation of the *English* School, that his "Tropical Diseases" has appeared a moment too soon.

How poor our literature is in this respect may be judged from the fact that there is only one other work to span the immense gulf between the pre-bacillary days and the present time with its multitude of pathogenic organisms; a period in which the whole pathology of disease has been revolutionised and reconstructed.

From DAVIDSON'S treatise on the "Diseases of Hot Climates," "Tropical Diseases" by Dr. MANSON differs in one very important respect; for, while the former discusses a limited number of the best known diseases only, and especially those to which Europeans are subject, the latter, in wider flight, tries to embrace the whole pathology of warm climates, and to bring within our ken all known disease, whether peculiar to the native or shared alike by him and the European.

In this respect the book is unique and marks an epoch of its own; it however gains this distinction at the expense of fulness and completeness of detail, which would be quite impossible in a work of its size, extending as it does to no more than 600 small pages.

It may be fairly considered as a short and concise manual of the better known diseases, and a guide or index to the little that is known of the rarer pathological conditions, amongst which we note "Nasha Fever," "Kala Azar," "Ponos," "Verruga Peruana," "Craw Craw," "Pinta," "Goundou," etc.

It will no doubt serve to excite interest in these obscure affections and in a more general way to give an impulse to the exact study of tropical medicine.

The book is divided into seven sections, the first deals with "Fevers"; the second with "General Diseases of Undetermined Nature" as Beri-beri; the third with "Abdominal Diseases," including Cholera, Abscess of the Liver, etc.; the fourth with "Infective Granulomatous Diseases"; the fifth with "Animal Parasites and Associated Diseases"; the sixth with "Skin Diseases"; and the seventh with "Local Diseases of Uncertain Nature.

A chapter on the "Aetiology of Tropical Disease" forms the introduction; this gives us the clue to the stand-point from which Dr. MANSON regards all tropical diseases, he does not travel round his object and view it in all its possible aspects, such circuition is not to his taste; his sole point d'appui is the germ, and his only guide the microscope.

The whole subject, in its present state, is much too wide for this narrow limitation, nor do we think he is successful in the reasoning by which he tries to justify his attitude.

He asks: "In what way do tropical influences affect disease, and why should it be that some diseases are peculiar to tropical climates, or are specially prevalent in such climates"?

We may mention parenthetically that by "tropical" Dr. MANSON simply means "warm."

In reply to the above he tells us that "The European, it may be, on his first entering the tropics, and until his machinery has adjusted itself to the altered [illegible] circumstances, is liable to slight physiological irregularities. A predisposition to certain diseases, and a tendency to degenerative changes, may be brought about in this way; but acute disease with active tissue change is not so caused. In the tropics, as in temperate climates, in the European and in the native alike, nearly all disease is of specific origin. It is in their specific causes that the difference between the diseases of temperate climates and those of tropical climates principally lies."

"Modern science has clearly shown that nearly all diseases, directly or indirectly, are caused by germs. It must be confessed that although in many instances these germs have been discovered, in other instances they are yet to find; nevertheless, their existence in the latter may be confidently postulated."

These are very wide and sweeping statements, but we are far from accepting without demur either their assumptions or their logic.

This talk about the physiological machinery adjusting itself is mere trifling, while to maintain that climatic influences can induce degenerative changes, but not acute disease with active tissue change, is a distinction altogether too fine and artificial for our taste; the final word on these subjects has not yet been said; they belong to a field of research which has not yet been exhausted, and without some more reliable data we are not inclined to accept these dicta.

Considering, on the other hand, that the number of diseases in which a germ has not been found, far exceeds the number in which it has, we would ask is it logical, is it rational, to argue from the few to the many, from the particular to the general, and can science and truth derive any advantage from such false methods?

We cannot for the life of us see what advantage is to be gained by this universal germ worship. We know that there are plenty of forces in nature inimical to life, whether animal or human, numberless poisons, extreme heat and extreme cold, there may be many others whose nature and existence are still unknown to us, surely it is as unwise as it is unreasonable to assume that every malevolent influence, whose nature is still obscure, is some germ or the product thereof. An open mind should be maintained on these points, and advance can only be made by the careful investigation and weighing of every possible factor.

It is one of the defects of the bacteriological school that they are too fond of putting forward hypotheses and expecting others to accept them as facts, hypotheses are doubtless very useful things, in their proper place; they subserve the purpose of Aunt Sally at a fair, to be shied at and knocked down, like her, they invariably come up smiling as if nothing had happened. What we want is a little more proof and less, far less, hypothetical conjectures.

As Dr. MANSON is known to us as a past master in the art of medical fiction, we naturally look for some show of talent in this direction, and we are not disappointed, in discussing the peculiar distribution and limitations of certain tropical diseases as malaria we find the following:—

"Lastly, I can conceive, and believe, that there is another and less directly-acting set of conditions influencing the distribution of disease . . . The malaria parasite

is absent in many places in which, apparently, all the conditions favorable for its existence are to be found in perfection. Why is it not found there, seeing that it must certainly have been frequently introduced? I would suggest that in some instances this, and other disease germs, or the organisms subtending them, are kept under by natural enemies which prey on them, just as fishes prey on and keep down water-haunting insects, or as mice do humble bees." Unfortunately we have not the faith of the *British Medical Journal* to exclaim "This is scientific medicine!" It may be balderdash for all we know.

Malaria, as its importance demands, is allotted a larger share of the book than any of its compeers; 126 pages are devoted to it; in these the malarial parasite occupies a prominent place. We regret to note that Dr. MANSON, while admitting the scientific incorrectness of the name plasmodium, adheres to it in preference to hæmatozoon, the name originally given to it by LAVERAN, its discoverer.

"It is now practically certain," he says, "that the presence and proliferation in the blood of this parasite is the cause of malarial disease." "Hitherto all attempts to cultivate the parasite, whether in the ordinary culture media or inside the bodies of the lower animals, have failed. Until this has been successfully effected, and until experimental infection of man from a pure culture has been followed by typical malarial disease, absolute proof of the causal relationship of the parasite to the disease may be said to be wanting; short of this, however, proof is complete, and, as already remarked, the plasmodium may, with confidence, be accepted as the cause of malaria."

KOCH, as we all know, laid down certain canons probably with the laudable intention of checking the grasshopper instincts of two ardent bacteriologists; it now appears to be the proper thing, when these canons present difficulties, which are not readily surmounted, to cast them aside as of little value, short of absolute proof, proof is complete, is the somewhat contradictory expression in which the verdict is broken to us, and of course we must be satisfied.

MANSON'S HYPOTHESIS.

"The plasmodium," we are told, "like all true parasites, must be adapted not only for a life inside its host but also, in order that its continuance as a species may be assured, for a passage from one host to another. Consequently it exhibits two distinct phases—an intra-corporeal or human phase, and an extra-corporeal phase. Clinical observation makes it certain that there is yet another phase—the latent phase."

Next we are told that "As it is unreasonable to suppose that an organism which propagates so actively in the human body has no opportunity, either by passing from one host to another or in other ways, of continuing its species, we are forced to conclude that some provision must exist in the economy of the parasite that enables it to leave and enter successive hosts."

"The problems suggested by these considerations are: First, how does the malaria parasite leave the human body to get a chance of following an extra-corporeal life? Second, what is this life? And third, how does the parasite enter the human body?"

MANSON'S hypothesis is, "that the flagellated body constitutes the first phase of the intra-corporeal life of the plasmodium."

We are told that, "the flagellated bodies are developed from two forms of the intra-corpuscular parasite—namely, in certain types (the malignant) of malarial infection from what is known as the 'crescent body'; in other types (the benign) from certain large intra-corpuscular plasmodia," and that they are never seen in newly drawn blood.

Now what are these "crescent bodies" to which is allotted such an important rôle? Up to the present nothing is known of their true nature, and there is much difference of opinion amongst the authorities. MANSON, however, is inclined to agree with MANNABERG that the "crescent body" is the result of the conjugation, the forming together of two ordinary plasmodia, so that a single plasmodium is not capable of forming flagella, but two together are, as to the why and wherefore of this we should like some further explanation.

But worse than this it appears that a number of high authorities, among them MARCHIAFAVA, BIGNANI, BLANCHARD, etc., regard the "crescent bodies," spheres, and flagellated bodies as being degenerated dead or moribund plasmodia. These observers have had excellent opportunities for forming their opinions, and should it happen that they are right, MANSON'S edifice topples to the ground.

The whole mosquito theory turns on the simple question whether these bodies are living or dead, and we think it would be well if this point were decided before the mosquito theory is taken au grand serious

THE PARASITE IN CONNECTION WITH DIFFERENT TYPES OF FEVER.

We find that "a particular clinical type of malarial disease is associated with a parasite of more or less definite morphological form and intra-corporeal life cycle."

The parasites are divided into two groups—the benign and the malignant.

"The benign are of two kinds, one having a cycle of 72 hours, causing a fever recurring every three days—quartan ague; the other with a cycle of 48 hours, causing a fever occurring every two days—tertian ague."

"The malignant parasite has at least three forms: A pigmented parasite of 48 hours' cycle; a pigmented parasite of approximately 24 hour's cycle; and an unpigmented parasite, also approximately of 24 hours' cycle."

Any one of these five kinds of parasites may cause what is known as remittent fever. The intermittency or remittency of any fever depends in a great measure on the simultaneousness or the reverse of the maturation of the crowd of parasites giving rise to it. If all the parasites present are of nearly the same age, they mature approximately simultaneously, and we have an intermittent; if they are of different ages, they mature at different times scattered over the 24 hours, and we have what is known as a remittent.

Further, two generations of tertian parasites maturing on successive days will produce a quotidian fever, tertiana duplex; two generations of quartan parasites maturing on successive days will produce fever fits on two successive days followed by one day of freedom, quartana duplex; three generations of quartan parasites will produce what clinically appears to be a quotidian fever, but in reality is a quartana triplex."

This is all delightfully clear, it is [illegible] perfect, and as simple as an easy sum in arithmetic.

The most marked feature of all malarial fevers is periodicity, and the whole question of periodicity, according to the new doctrine, depends upon nothing more complicated than the age and period of maturation of the parasite or parasites. Each variety of parasite has its own special life cycle, and the process of maturation occurs at regularly recurring intervals of 72, 48 or 24 hours, and coincident with maturation is the accession of fever.

So far so good, but see later what an overwhelming difficulty this exceeding simplicity leads us.

A man with a double tertian has two different families of parasites in his blood, one family 24 hours older than the other; thus each day one family matures, so that he has an accession of fever every day.

Now each of these families may have gained an entrance to his blood either at the same hour, or at any other hour during the 24 that make up the day and night; the chances are strongly in favor of their gaining admission at different hours, and supposing one to have entered the blood at 7 P.M. and the other at 7 A.M., then the infected individual should have an accession of fever every alternate day at 7 P.M. and every other day at 7 A.M.

Has any one ever observed a double tertian presenting these characteristics, i.e., the fever coming on at distinctly different times on the different days? No; this has not been observed, and Dr. MANSON admits that, "As a rule, the attacks tend to occur about the same time every day."

This is clearly absurd, considering the stress that is laid upon the cycles of the parasites, and it follows that either that the cycles of the parasites is not as represented, or that their period of maturation has no causal connection with the fever accession.

When we come to consider the case of a man having three different families of quartan parasites in his blood, the chances that their ages would vary by each interval of 24 hours, and that each of the three would gain admission to the blood at exactly at the same time, are enormously diminished. Yet we must shut our eyes to the doctrine of chances and swallow all this if we are to believe in this theory in its entirety.

How does Dr. MANSON deal with this difficulty? Having laid down the life cycle of each parasite, and told us that, upon the length of this cycle depends the clinical type of the fever, he says: "But how are we to account for the periodicity of the parasite itself? It is true that it has a life of 24 hours, or of a multiple of 24 hours; but why should the individual parasites of the countless swarm conspire to mature at or about the same time?"

Yes, undoubtedly this is the crux! Why on earth should they? The chances are undoubtedly all against it, and now read the explanation, or rather the answer, for explanation, there is none.

"That they do so," we are told—"not perhaps exactly at the same moment, but within a very short time of each other—is a fact, and it is one which can be easily demonstrated."

We have before been told, as a fact, that each parasite can only mature at a certain well-defined time. Now we are told, as a fact, that each parasite can mature at any time; but two facts which contradict each other cannot both be true. Q. E. D. And here for the present we leave the question.

THE PRESENT POSITION OF THE THERAPY OF TRAUMATIC TETANUS. BY PROF. DR. A. [illegible], HEIDELBERG. TRANSLATED FROM [illegible] MEDICINISCHE WOCHENSCHRIFT.

The treatment of the infectious diseases has reached a turning point. Since the bacteriological researches of the last ten years have made known to us that the causes of these diseases lie in the presence and multiplication of the most minute forms of life, the so-called pathogenic micro-organisms, there has been a transformation in therapeutics. The result is that now the active cause (Indicatio Causalis) strives to assume a more important position than the symptomatology (Indicatio Symptomatica). This struggle has only just been decided for one infectious disease, viz., diphtheria, and certainly in favor of the Indicatio Causalis.

With regard to other diseases we must put our trust in the future, that it will be fulfilled we have no doubt, for the realisation of this hope is the logical outcome of our knowledge of etiology. Nevertheless we are very far from being such therapeutic enthusiasts as to believe that with the victory of the "Causal indication" we can altogether lay aside the consideration of the symptomatology which has previously had a leading position.

On the other hand, the more we learn to know and understand the therapeutical errors of our forefathers, the more is the conviction forced upon us that they will, in a great measure, maintain their position in the future, and that we shall only reap real and valuable results by combining and mixing both old and new methods.

But the causal-connection assumes greater prominence as bacteriological research extends; from it we have learnt that in the majority of diseases due to bacteria, it is not the bacterium, the bacillus, or the coccus *per se* which causes the onset of the sickness, but the metabolic toxins produced by them.

The etiological treatment must therefore consider the intoxication as well as the primary infection.

Hence with the advance of therapie, new questions arise, and in addition to the struggle with prominent symptoms which has hitherto been the chief object of therapeutic measures it becomes necessary—

(1). To destroy the cause of the infection, the product of the toxine; (2) to eliminate from the body the toxin that has already gained an entrance, or (3) to neutralise it in the body and render it inert; and lastly; (4) to immunise the body against subsequent infection, *i.e.*, to check development of toxins in the future.

The first task, the destruction of the cause of the infection, is a local indication, according to the mode of ingress of the virus it may be a surgical operation or an internal one.

The second task, to eliminate the toxin that already is in the body, rests upon empirical knowledge, as far as experience goes, an undoubted improvement follows the eliminative method, whether the poison be eliminated by the intestines, the kidneys, or by the skin.

Only quite lately the newest researches have thrown a light upon the long-accepted facts of empiricism and by means of experiments on animals demonstrated the active toxins in the excrementory products of the above-named organs.

With the third task to, neutralise the toxin in the body and prevent its action, it is the province of serum therapie to deal. This is the newest and, we can already say, the most hopeful direction of therapeutic methods. It is founded on the knowledge that in the blood serum of individuals who have recovered from infectious diseases, a material is found which has the effect of a medicinal antidote on a medicinal poison (*e.g.*, oxide of iron in arsenic poisoning), the so-called anti-toxins; concerning their mode of action the details are not yet quite clear. Having discussed the subject of tetanus, we will return to the consideration of the question and the hypotheses that have been built up.

The fourth and last question occupies itself with the prophylaxis against subsequent infection, to immunise the body and make it unsusceptible to the effects of toxic substances.

We call this method universal preventive treatment.

The prophylactic serum injections in diphtheria show us its daily application and wonderful effects.

Vaccination against small-pox forms a well-known analogy, its aim is to immunise the body, but its modus operandi is different; for through vaccination a local variola is caused whose object is to immunise the body against a general infection.

When we have found out the exciting cause of this disease, perhaps vaccination will have to give way to the safer and more effective method of serum therapie.

Of the infectious diseases whose treatment has undergone a complete transformation in the last few years, after diphtheria, tetanus is the most prominent. In journals devoted to the new literature we certainly read of serum therapy applied to a series of infectious diseases, as measles, scarlet fever, pneumonia, typhus, it is not improbable that this method of treatment has a future before it, especially when fresh discoveries have been made concerning the exciting causes of these diseases, the nature of whose infection is as yet unknown; but the result of this treatment up to date are so obscure and doubtful, and the observations as yet so few that it is impossible to give a decided opinion on the subject.

On the other hand, during the last few years, tetanus has become a very lively ground for discussion, and a series of anti-toxins are already in the market, associated or not with which fact, a great number of published results exist.

It may therefore be of interest, considering the extraordinary severity and practical importance of the disease, to form a new estimation of its treatment.

Let us also contemplate the general features of the therapy of traumatic tetanus with reference to the above questions, and take a clear view of the therapeutical indications.

We next turn to the symptomatic treatment, and we may be permitted briefly to set forth the symptoms of tetanus. We notice that following upon an external wound, after a known incubation stage, which for the estimation of the severity of the case is of special importance, spasms of the body appear.

According to Rose, by far the best informed authority on tetanus, there are five stages of these. In the first, spasm of the muscles of mastication appears, Trismus. In the second, spasm of the neck, opisthotonos, spasm of the abdomen, of the knees, and feet. In the third, these permanent tonic spasms are interrupted, without any external cause, by regularly recurring contractions of the affected muscles, the so-called shocks or "crises" of the French writers. In the fourth, appears the abnormal excitability of the reflexes which leads to vehement spasms through contact or through any movement in the neighbourhood

To these stages, which, on the whole, present a satisfactory picture of the disease, Rose adds a fifth, the stage of exhaustion which succeeds the first four and generally leads to death. Death occurs in the majority of cases by suffocation in consequence of spasm of the muscles of respiration, of the glottis and diaphragm.

Regarding the severity of tetanus, we readily accept Rose's division of such cases. Those that occur within ten days of the wound are severe, and the mortality amongst them is very high; those that appear later are mild. Amongst the severe cases there are some whose symptoms develop very quickly in a few hours or days; these we class as very severe, and those which develop gradually as middling severe.

From the general nature of the symptoms and of the tonic spasms with their complications we see that the question of therapie has to deal with remedies for insuring quiet and relaxation. Therefore the question of *narcotics* has to be specially considered; for this condition Rose places opium, especially in the form of hydrochlorate of morphia, before all remedies; this preparation is the only constant one, and it is easily soluble On the other hand, opium varies in its proportion of morphia. According to recent analyses, from 1·5 to 28 per cent.; moreover, its reception by the stomach is rendered difficult, and this explains the enormous doses that have been given without producing symptoms of poisoning. Thus 5·0 7·0 30·0 grains a day have been given instead of the maximum dose of 0·5. Rose therefore always gives morphia. We have seen very favorable results from the subcutaneous injection of opium in a very severe case, which we will mention here in detail.

Adam R., 10 years old, the son of an agriculturist.

Twelve days before his admission he was thrown from a wagon on to the ground. The wheel struck him on the outside of the left knee and raised a flap of skin as big as of the palm of the hand. This was stitched on again by the physician after a pretended, nasty disinfection. The wound suppurated, the flap necrosed, and the skin in the neighbourhood became gangrenous, the boy was unable to give any more precise details, but he declared that *even a few days after the accident he was unable to close his mouth and eyes as freely as formerly, nor was he able to swallow his food so well.*

These troubles became worse during the two days of his stay in hospital.

Condition: 17th May 1895.—A slenderly built anæmic boy. Anxious expression of face. Eyes slightly closed. Mouth distorted as if about to cry. Can only open or close it to the width of 2 cm. No inflammation of the throat. The muscles of the neck tense. Holds the upper part of the body stiff when held erect. No movement of the head backwards and forwards. Patellar reflex lively. Ankle clonus. Lungs and heart normal. Abdomen retracted, tympanitic. Motions regular.

In the region of the left knee an almost circular portion of skin, with a diameter of about 14 cm. has been removed apparently by necrosis; the surface is granulating well; the edges are as yet not quite healthy. To the inner side of the patella, the joint is exposed in a white surface, the size of a bean, partly covered by granulations.

Over the inner condyle of the tibia there is a flat fluctuating abscess with discolored skin about the size of the palm of the hand. The left leg is somewhat bent at the knee. There is no fever.

Diagnosis.—A fairly healthy skin wound of the left knee, an extra articular abscess over the tibia. Commencing subacute traumatic tetanus.

18th May.—No fever. The granulating surface was dressed antiseptically, the abscess opened, and a quantity of inspissated pus evacuated. The general health appeared good. Sleep quiet. Spasm of the muscles of the face and neck increasing.

19th May.—No change. Appetite good, moderate, difficulty in swallowing. Head symptoms unaltered. Ordered perfect rest, moist air, chloral hydrate.

20th May.—Greater difficulty in swallowing. Mouth can scarcely be opened a finger's breadth. The tongue can hardly be protruded beyond the teeth. The eyes can be opened a little better Lifts himself with difficulty and with great pain in the neck.

22nd.—The temperature previously normal rose yesterday to 101·4°F.; it is the same to-day; morning remission below 98·6°F. Spasm of the neck pronounced. All the muscles of the neck feel hard.

He cannot be raised on account of the great pain. The pectoral muscles are tense and hard, so that passive motion of the arm meets with great resistance The tetanic spasms are permanent and are not excited reflexly. Knocking on the bed or even on the body gives rise to no paroxysm, but little sleep last night; by fits and starts a peculiar cough is given during which the boy often bites his tongue. During short periods of sleep a cry is given out, after which the child awakes crying Ordered, in addition to the chloral hydrate, Tinct. Opii. Simp. 3 drops frequently subcutaneously.

23rd.—The wound is unhealthy and secretes a greenish pus; otherwise no reaction. During the day the boy lies fairly quiet in bed, the head drawn back, the body stiff, the eyes still almost closed. Trismus is well marked. The tongue previously bitten can now scarcely be moved. Any attempt to sit up causes great pain. The head can be moved sidewaya. No paroxysms produced reflexly to-day Reflexes of the lower extremities heightened. Ankle clonus more marked. Difficulty in swallowing more pronounced; only liquid nourishment can be taken. No fever this evening. Stools and evacuation of urine normal.

To-day his parents came to visit the boy, and on being questioned said, that for two days before he was taken to hospital his expression had undergone a remarkable change; his eyes were always closed and already difficulty in swallowing had appeared.

24th.—The muscular spasm is now most marked in the muscles of the breast and in the extremities. The spasms were relieved for a time by an injection of opium and the movements became freer; the stiffness of the neck alone remains permanent.

On attempting to cough the [illegible], and the patient frequently bites the tongue, which has numerous bite wounds.

Towards mid-day a very serious spasm of the diaphragm occurred with strong trismus, the lips become blue, breathing almost ceased, artificial respiration was necessary. After this the breathing became re-established. No paroxysms of the larynx. No change in the wound.

25th.—No sugar or albumen in the urine. Temperature 102·2°F. General spasms unaltered. Any effort at active movements brings them on, sometimes in the extremities, sometimes in the pectoral muscles. The patient complains of pains in all his limbs. The spasm of the diaphragm has not recurred; the muscles of the face are more relaxed and the difficulty in swallowing is less. The trismus is not so marked.

26th.—Chloral hydrate can no longer be taken, as it excites cough. Bronchial and tracheal sounds loudly audible. The phlegm cannot be expectorated on account of the persistent trismus. The breathing is regular. Under repeated injections of opium the spasms are less, reflexly they can only be excited by loud noises, not by knocking the bed or by touch. Temperature 100·4F. Pulse regular, strong. Urine and stools passed naturally. The muscles of the chest and abdomen are stretched and hard. The head drawn back through the spasm of the neck muscles. The anxious expression is not so marked as at the beginning. Fluid nourishment can be taken.

27th.—Condition almost unchanged. In the afternoon there were two attacks of spasm of the diaphragm, in one of these the breathing suddenly stopped, the mouth was firmly closed in the drawn back head, the teeth were clenched, so that the jaws could only be opened with difficulty with a forceps and by the removal of several teeth, the lips were blue, the pupils dilated, the whole body stiff. Artificial respiration after the tongue was drawn forward; the spasm of the thorax was difficult to overcome, so that it was some time before air could be induced to enter the lungs, after the lapse of 1½ to 2 minutes the first effort at respiration took place, but the breathing was for the next hour stertorous and spasmodic, the respiration prolonged with loud râles, frequency about 40 to the minute.

The treatment was Tinct. Opii three or four times hypodermically, so that the patient was kept in a light opium slumber. A fair amount of albumen in the urine. Experimentally 1gr. was injected into a mouse.

29th.—Yesterday towards evening there was another spasm of the diaphragm associated with general tetanus. Extract of opium continued subcutaneously. The general appearance is no worse; the movements of the face are freer; the mouth can be opened 1½ cm; the tongue as yet cannot be protruded beyond the teeth. The rest of the body is stiff, almost tetanic, except that spasms cannot be excited reflexly. The mind is clear, the speech indistinct, the pain on swallowing less, he can take milk, eggs and beef-tea plentifully. The temperature towards evening reached 102·2F. For a considerable time the extremities were almost free, especially the fingers could be moved fairly quickly; then the movements became spasmodic and excessively painful; during the day the breathing was regular, although very much quickened (between 40 and 50). The respira-

[illegible] there are still [illegible] rales, the phlegm can only be expectorated with difficulty, for every effort to cough causes great pain.

4th.—Slept fairly well; much thirst; complained of pain in the body and breast; heavy perspiration; the whole body covered with sudamina. Tracheal rales continue; the breathing is quickened. In the morning Ext. Opii given subcutaneously, after which the pain decreased. Expression of face tranquil to-day. In the evening more opium, after which sleep came on, which lasted all night. At every attempt to expectorate a spasm of the muscles of the chest and upper extremities occurs.

5th.—Last night the patient was fairly quiet and slept well. Breathing still noisy. During the day no aggravation of the muscular spasms. The mouth can be opened better and the tongue protruded a little. Swallowing is not painful. No opisthotonos. The upper extremities can be moved. The hand can be carried sideways to the mouth.

The leg, which until now lay in a state of tonic spasm, admits of some active movement at the knee. The desire for food is great. Milk, wine and soda water are taken in large quantities. There was one stool after two days' intermission. The secretion of urine is somewhat diminished and still contains albumen.

Continued Extract Opii. Temperature the last two days between 100·4° and 102·2°F.

Wound going on well; secretion healthy, dressed antiseptically.

3rd June.—Condition unchanged. Head still drawn back, extremities stiff. Breathing rapid, noisy, and moaning. Expectoration still brings on spasms. The movements of the hand are fairly free, but not those of the arm. The abdomen is tense, and there is severe pain at the pelvic origin of the chest muscles. Muscles of the face sometimes relaxed, but again the expression becomes characteristic. The mouth can be opened at most a finger's breadth. The tongue, which is still bitten, can be slightly protruded. There is no difficulty in swallowing, and a healthy inclination for fluid nourishment exists. Mind perfectly clear. He is cheerful and takes a greater interest in his surroundings.

Extract Opii by injection continued. The limbs were, on the whole, more relaxed, and the tonic spasms have ceased. After the opium he passes a quiet night. Diffuse rales in the lungs.

Pulse quick. Heart cannot be auscultated on account of the moaning respiration. The wound has granulated. Motions sometimes passed spontaneously; sometimes after an enema. The quantity of urine cannot be accurately measured, as he sometimes passes it in bed.

6th June.—The mouse that was inoculated with urine died eight days afterwards with typical tetanic spasms. Yesterday and to-day no improvement. To-day, before the injection of opium, the whole body again became stiff with symmetrical cramp of the muscles, not increased reflexly. The muscles of the legs, back and head are tense and stand out like those of a statue. Breathing still suspended. Moaning accompanied with rattling in the throat. Sputa is forced out constantly once or twice a minute. The bronchial phlegm only is difficult to expectorate. Opisthotonos unchanged. There is still albumen in the urine.

9th.—Tonic spasm of the body as before; the spasm of the muscles of the face and chest is perhaps even more marked than at the beginning. Movements of the forearm freer. General condition improved. Half solid nourishment in small quantities. The continued use of opium diminishes the pain, which is otherwise very severe. Spasmodic respiration has ceased, but even yet at every effort to cough there is a slight spasm of the whole body. The respiration is certainly easier; its rate has diminished from 50 to 25, and is no longer accompanied by loud rales. Natural stools daily.

11th.—No important change. Baths were tried once, but the result was unsatisfactory. Spasm of the muscles as before. The wound is going on well, but it discharges a dark green pus. Communication with the knee joint still exists. No pus in the joint.

20th.—The last two days towards noon the temperature rose, with great pain in the affected knee. A large amount of secretion is discharged from the opening in the joint, but there is no swelling. The cough is less. Stiffness of the neck has disappeared, but the stiffness of the back remains unchanged. The arm can be moved horizontally and the leg partly bent. Injection of opium, as before, is necessary on account of the great pain.

24th.—Since yesterday the fever has fallen, but there is still free discharge and pain in the knee. The mouth can now be opened a thumb's breadth and the tongue can be readily protruded. The back continues stiff. Movements of the extremities are still stiff and awkward.

Condition on discharge, 5th August 1895. Local.—The wound over the knee is healed and covered with epidermis, except a place the size of a penny piece. The opening into the joint on the inner side of the patella is also closed and skinned over. The newly-formed skin is already fairly moveable. There remains slight effusion in the joint. The patient will soon be able to straighten his leg; it can be bent to a slight angle without pain. He can walk with a limp in the left leg, and is somewhat stiff and awkward in this side.

His body, when standing, is bent forward and the head is held stiffly. The expression of the face recalls the risus sardonicus. The reflexes are exaggerated. The mouth can be opened widely and the eyes moved without trouble. The contraction of the muscles is feeble. The lungs are normal and the urine also normal.

That we are justified in classing this case amongst the most severe is proved in the first place by the suddenness of the onset and secondly by the complex symptoms. For spasm of the respiration as severe as obtained in this case only appears in the worst forms of tetanus, and it is marvellous to note that the patient was not killed by it.

Since the opium treatment succeeded in preserving the patient until the poison was eliminated from the body, this must be accepted as a striking example of the success of the symptomatic treatment.

Opium had no power to prevent the respiratory spasm, having no specific action in this direction, and when this

occurred, it is manifest that it was the artificial respiration that preserved life; yet there can be no doubt that the general sedative effect of opium helped materially to preserve the patient.

Another narcotic that is very frequently employed is chloral hydrate. ROSE especially recommends it in maximum doses, and immense quantities have been taken with benefit to the patient. As chloral is not easily taken by mouth, and especially in large doses has an unpleasant effect upon the mucous membrane, it is best administered in the form of an enema with mucilage.

Again, it must be mentioned, that some investigators as THOMPSON recommend bromide of potassium, or paraldehyde, also nicotine in the form of tobacco solution administered per rectum and also tobacco smoke. Cannabis indica has also found supporters. SAHLI recommends that the narcotic should be varied and the dose carefully suited to the individual.

From curare much has been expected, and it appears to be very suitable on account of its paralysing effect upon the endorgans of the motor nerves; in certain cases it has been given even in large doses. Its effect, however, remains doubtful. Moreover, it is handicapped by the slow development of its characteristic effects, which only appear after rigors, increased frequency of pulse and respiration, muscular spasm, perspiration, and increased secretion of urine and tears; lastly, the preparation is unreliable, and to be dreaded. Moreover, VULPIAN has said that to treat tetanus with curare is to add a new danger to the disease.

Success has in some mild cases been obtained with physostigmin, the alkaloid of Calabar bean.

Anæsthesia, either temporary or permanent, must also be included in the therapeutic measures. The results are not altogether encouraging, and the conclusions drawn from them have, undoubtedly, often been enormous, for the prolonged sedative action of the narcotics persisting after the anæsthesia have been looked upon as a direct influence upon the tetanic spasms, but after the effect has passed off the spasms have become more pronounced than before. Yet anæsthesia will sometimes be of use; for experience has shown that it has such an effect upon severe spasms of the respiration, that the impending tracheotomy for which it has been given proved to be unnecessary.

After opium and chloral very good sedative results have been obtained by the external applications of moist heat. ROSE does not recommend baths, because they on account of the unavoidable disturbance, excite the patient and sometimes increase the strength of the disease. Enveloping in hot, damp cloth is said to be beneficial. The sedative effect of cold has also been tried, but cold baths of short duration must be avoided, since death has resulted from them, but hopeful results have been obtained from cold applied slowly and for a long time.

It is very important in tetanus that a sufficient amount of nourishment should be given to preserve the strength, if it cannot be taken on account of trismus or difficulty in swallowing, nutritive enemas must be given.

COMMENTS AND NEWS.

THE ROENTGEN RAYS IN WARFARE.

THE *British Medical Journal* says:—"Surgeon-Major W. C. BEEVOR, M.S., Army Medical Staff, gave an address on this subject at a meeting of the Royal United Service Institution on 30th May. The chair was taken by the Director-General, and the paper was concerned especially with the employment of the Roentgen rays during the recent operations on the frontier of India. Surgeon-Major BEEVOR observed that one of the greatest desiderata in the construction of all apparatus for military work was that every portion of the apparatus should be easy of access, so that repairs could be made, while at the same time the whole could be quickly packed and unpacked in cases suitable for transport under the very rough conditions of actual warfare in mountainous countries. It appears that the apparatus used during the frontier expedition consisted of a 10-inch spark coil, a primary battery, three tubes, a screen, and some Paget photographic plates. The lecturer showed a compact and portable wooden box, into which a serviceable folding tube holder and a screen could be packed. He showed also a vulcanite box with a handle to take a Crookes's tube, to which insulated electrodes could be attached. This could be freely moved about and placed in any position necessary for the examination of the patient with the screen. Surgeon-Major BEEVOR contended that it was the duty of every civilised nation to supply apparatus for the Roentgen rays not only at base hospitals, but also at every point where soldiers were fighting and exposing themselves to injury in the performance of their hazardous duties. The portable apparatus should not weigh more than 80 to 100 lbs., and could then be carried slung from a pole by two men. Transport by mules, camels, or wheeled vehicles was too uncertain a means of conveyance for delicate apparatus except where there were good roads. A difficulty which had been met with was that a hot sun might melt the wax which insulated the wire of the secondary coil. It was found that a mixture of paraffin wax and resin which did not melt under 150°F. was enough for all practical purposes, while a covering of felt protected the coil from sun, rain, snow and frost. The screen, which was a most important part of the apparatus for urgent cases, could be enclosed in an aluminium case and protected from accidental scratches by a layer of celanite, as suggested by Mr. LACONTEUR, of the London Photographic Association. Surgeon-Major BEEVOR'S paper was a valuable contribution towards the practical working out of the best apparatus for use in emergencies in the field, and those who have had experience of the difficulties which arise even in the best-appointed laboratories will be able to form an opinion as to the serious character of the obstacles likely to be encountered under limited conditions."

MR. AMRITA LALL BHATTACHARYA, L. M. S. ON THE SYMPTOMS OF PLAGUE.

THE presence of plague in the country is a matter of such great interest to the whole community, that it is not to be wondered at that a large number of communications on the subject appear from time to time in the daily press. Many of these emanate from persons who have absolutely no great knowledge of this, of any other branch of medicine, who are anxious to air some particular fad of their own and eager to court the small notoriety of appearing in print.

With these we have nothing to do, beyond expressing our surprise and regret that leading papers should give publicity to opinions which can do no possible good, and may do endless harm.

It is difficult however when we find a gentleman, an L. M. S., who calls himself a practising physician, exposing his own ignorance, while endeavouring to correct the mistakes of some one else. We consider it our duty to expose cases of this kind lest many people may be misled by the erroneous doctrines made public by a qualified medical man.

In the *Englishman* of the 10th June a long letter appeared headed "Symptoms of Plague" and signed by the medical man whose name is given above.

In this letter the following sentence appears: —"Now a few words regarding the bacilli. If the malaria bacilli be identified with the plague bacilli, then the inoculation with plague serum, or, in other words, the introduction of the bacilli into the system as a safeguard or protection from an attack of plague, seems to be the most unreasonable measure that could be adopted." This sentence, short as it is, contains no less than two fundamental errors.

It may surprise Mr. BHUTTACHARYA to be told that there is no such thing as a bacillus of malaria,—yet such is the case.

The micro-organism which is supposed to be the cause of malaria is not a bacillus at all, and no one, with the least possible knowledge of what he was talking about, could suggest the possibility of its being mistaken for the bacillus of plague.

To talk of "LAVERAN'S malaria bacilli" is totally wrong; LAVERAN'S body is an animal parasite commonly called the plasmodium malariæ, all bacilli, on the other hand, belong to the vegetable kingdom.

The second error to which we allude is the suggestion that inoculation against plague may produce the disease, by the introduction of the bacilli into the system, this is calculated to discredit Mr. HAFFKINE'S method of prophylaxis.

This suggestion is without foundation, for M. HAFFKINE'S prophylactic serum contains no living bacilli, they are all carefully destroyed by heat.

M. HAFFKINE'S method of preparing his serum was described in this journal of 16th December 1897, and therein it will be found that he says —

"The microbes in this fluid are killed by heat at 70°C maintained for one hour."

CHANGES IN THE NEW BRITISH PHARMACOPŒIA.

WE quote from the *Chemist and Druggist*:—

Aqua Chloroformi is half 1885 strength, so that there is no longer need of diluting it with plain water when prescribing.

Ext. Belladonnæ Alcoholic.—About a quarter the strength of the 1885 extract, owing to dilution with milk-sugar. Dose, now, ½ gr. to 1 gr; formerly, $\frac{1}{4}$ gr. to ½ gr.

Ext. Nucis Vom.—Two-thirds the 1885 strength, but the dose remains the same.

Ext. Opii Liquid.—Formerly contained 1 oz. solid extract in 1 pint; now contained ½ oz. Dose also less—*viz.*, 5 to 30 minims

Ext. Physostigmatis.—Owing to dilution with milk-sugar this extract is one-fourth 1885 strength, and the dose four times greater—*viz.*, ½ gr. to 1 gr.

Inj. Apomorphin Hypoderm.—Now 1 gr. in 110 minims, instead of 1 gr. in 30 minims as formerly.

Inj. Morphinæ Hypoderm.—Contains slightly less than half the morphine of the 1885 injection; now 1 gr. in 22 minims. Dose, 2 to 5 minims.

Liquor Epispasticus is twice the strength of the 1885 article.

Suppositoria Morphinæ.—Each contains ½ gr. of the muriate instead of ¼ gr.

Pilulæ Phosphori.—A new mass containing 1 in 50, instead of 1 in 90. Dose, 1 to 2 gr.

Tr. Aconitæ.—One in 20, instead of 1 in 8, but same dose.

Tr. Aurantii.—Fresh peel only used.

Tr. Belladonnæ is no longer a tincture of the leaves, but of the root (1 in 15, formerly 1 in 20), and is at least twice, but probably three times, the alkaloidal strength of the 1885 tincture. Dose the same.

Tr. Chloroform, et Morph. Co.—Contains four times more morphine than tr. chlorof. et morph., 1885, and has a larger dose—*viz.*, 5 to 15 minims, instead of 5 to 10. Pharmaceutically it is a totally different preparation.

Tr. Colchici Sem.—Now 1 in 5 instead of 1 in 8, and dose halved—now 5 to 15 minims.

Tr. Lobeliæ Æthereæ.—Ditto.

Tr. Nucis Vomicæ is double 1885 strength, and made from liquid extract.

Tr Podophylli.—Almost double 1885 strength. Dose, 5 to 15 minims instead of 15 minims to 1 fl. dr.

Tr. Strophanthi.—A very deceptive change. Now 1 in 40, instead of 1 in 20, but as 70 per cent., alcohol (which is a much better solvent than S.V.R.) is used as a menstruum instead of rectified spirit, the alkaloidal strength will be almost the same (say, ¾ to ¾ as the 1890 tincture. The dose is 5 to 15 minims, instead of 2 to 10.

Ung. Aconitinæ.—Now 1 of crystallised aconitine in 50 instead of 1 of amorphous aconitine in 60; therefore at least three times stronger than the old ointment.

A COURAGEOUS GYNÆCOLOGIST.

WE frequently have to record, says the *British Medical Journal*, deeds of valour by medical men in the public services. Those deeds shed lustre on the profession, but at the same time, in the case of men who are in the strictest sense soldiers, they must be regarded as "all in the day's work," for it is the business of a soldier to be brave. Civilian practitioners, though they are more exposed to dangers than most other classes of the community, are seldom called upon to show the courage of the warrior It is therefore with pride as well as pleasure that we quote from the *Daily News* the following account of the heroic conduct of Professor PORRO during the recent riots in Milan —"The mob," says the correspondent of our contemporary, "did not even respect the hospitals, but wished to invade them, and the Ospedale Maggiore was particularly threatened. Behind the gate of that building stood Professor PORRO, a Senator, a well-known doctor, and the most noted Conservative in Milan. The crowd were quick to see him. "There is PORRO, our oppressor," they cried threateningly, and insults were shouted at the Professor, who now, pale but calm, resolutely opened the gates, and stood with his arms folded, saying sternly: 'Let him, who has the courage, advance. He will find a good revolver ready for him. I will show how a good physician does his duty.' No one accepted the invitation." The incident illustrates the power which a determined man often exercises over an angry mob. Professor PORRO, with his revolver, recalls the sentry at Marlborough House when the mob of the "unemployed" streamed along Pall Mall with threats of pillage after one of the disorderly meetings in Trafalgar Square some years ago. The sentry in a business-like way prepared to use his rifle, and the crowd showed its appreciation of the maxim that the better part of valour is discretion. Professor PORRO'S name is writ large in the history of modern gynæcology, and we have no doubt that if the hospital had been attacked, he would have used his revolver as effectively as he wields the knife. We congratulate him in the name of the profession of this country on his splendid devotion to the interests of his patients and his hospital."

ROYAL COLLEGE OF SURGEONS IN IRELAND.

ANNUAL MEETING.

THE annual meeting of the Royal College of Surgeons in Ireland was held on Saturday, 4th June, Sir WILLIAM THOMSON, President, in the chair. The report showed an increase of income amounting to £543 7s. 5d.; 14 Fellows, 39 Licentiates in Surgery under the Conjoint Scheme, 9 Licentiates in Dental Surgery, and 8 Diplomates in Public Health were admitted during the year; 12 Fellows and 47 Licentiates died during the same period. The last instalment of the debt due by the general fund under the amalgamation scheme having been paid off, the Professors have again assumed control of the school finances. A new theatre for the teaching of experimental and natural science has been constructed and fitted. The report was adopted.

ELECTION OF PRESIDENT, VICE-PRESIDENT AND COUNCIL.

On Monday, 6th June, the election of the new officers was held in the College. The outgoing President, Sir WILLIAM THOMSON, was succeeded by Mr. ROBERT LAFAYETTE SWAN, the Vice-President, and Surgeon to Steevens' Hospital.

For the vice-presidency there were two candidates, Dr. BALL, Regius Professor of Surgery in the University of Dublin, and Dr. MYLES, Surgeon to the Richmond Hospital. The contest has been in progress for many months, and it was generally believed that the finish would be very close. Naturally the keenest interest prevailed; 267 Fellows voted, and after allowing for spoiled votes the poll closed as follows: MYLES, 153; BALL, 127. On the Council there were three vacancies, and one member (Mr. MURRAY) lost his seat. The new members are Messrs. CROLY, CHANCE, CRANNY, and SHERLOCK. The following is a full list of the officers elected:—

President ROBERT LAFAYETTE SWAN, *Vice-President* THOMAS MYLES. *Secretary:* Sir CHARLES A. CAMERON. *Council:* ARCHIBALD H. JACOB, EDWARD HALLARAN BENNETT, HENRY GRAY CROLY, Sir PHILIP CRAMPTON SMYLY, Sir WILLIAM STOKES, HENRY ROSBOROUGH SWANZY, WILLIAM IRELAND WHEELER, Sir WILLIAM THOMSON, AUSTIN MELDON, Sir CHARLES A. CAMERON, L. HEPENSTAL-ORMSBY, RICHARD D PUREFOY, JOHN J. CRANNY, HENRY GREGG SHERLOCK, HENRY FITZGIBBON, ARTHUR HENRY BENSON, FRANCIS T. HEUSTON, JOHN LENTAIGNE, and ARTHUR CHANCE.

NEW CANDIDATES.

For the next vice-presidency (1900) two candidates have already declared themselves—Mr. FRANCIS T. HEUSTON, Surgeon to the Adelaide Hospital; Mr. L. HEPENSTAL-ORMSBY, Surgeon to the Meath Hospital.

SIXTY-SIXTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

THE sixty-sixth annual meeting of the British Medical Association will be held at Edinburgh, on Tuesday, Wednesday, Thursday, and Friday, July 26th, 27th, 28th, 29th, 1898.

President, T. G. RODDICK, M.D., Professor of Surgery in McGill University, Montreal.

President-Elect: Sir THOMAS GRAINGER STEWART, M.D., LL.D., F.R.S.E., Professor of Practice of Medicine and Clinical Medicine in the University of Edinburgh; Physician in Ordinary to Her Majesty the Queen for Scotland, Edinburgh.

SECTION OF TROPICAL DISEASES.

President: PATRICK MANSON, M.D. *Vice-Presidents:* ANDREW DAVIDSON, M.D.; ANDREW SMART, M.D., LL.D.; WILLIAM JOHN RITCHIE SIMPSON, M.D. *Honorary Secretaries:* JAMES CANTLIE, M.B., 44, Devonshire Street, Portland Place, W.; Surgeon-Captain M. LOUIS HUGUES, A.M.S., Aldershot.

The following discussions of Indian interest have been arranged: 1. The Unclassified Fevers of the Tropics. To be opened by Brigade-Surgeon-Lieutenant-Colonel CORNWALL, I.M.S.

2. Beri-Beri in Temperate Climates. To be opened by CUTHBERT NORMAN, M.D. (Dublin).

3. The Epidemic of Plague in India. To be opened by W. J. R. SIMPSON, M.D. (late of Calcutta).

The following among others intend to take part in the discussions or to send papers: Surgeon-Major-General HAMILTON, Inspector-General TURNBULL, R.N.; Dr. PATRICK MANSON, Professor HAFFKINE, Mr. HANKIN, Surgeon-Major ANDREW DUNCAN, Surgeon-Major RONALD ROSS, Surgeon-Captain HUGHES, Surgeon-Captain EYCHMAN, Dr. ANDREW DAVIDSON, Dr. DANIELS, Dr. SANWITH, Dr. SAMBON, Mr. JAMES CANTLIE, &c.

THE COMMUNICATION OF SYPHILIS A CRIME.

THE *Philadelphia Medical Journal* has the following:—

"We hope that the bill now under consideration by the German Reichstag making the communication of a venereal disease to others by one so affected a crime punishable with fine and imprisonment, will be passed, and, if so, it will be a long step in sanitary and sociological progress which other countries should follow.

"We are convinced that an active educational crusade by the medical profession would place us in as advanced a position as Germany in a short time. Let it be known how large proportion of the population is tainted, how easily the virus is disseminated, and how much worse than fatal are many of the sequelæ of these diseases, and an aroused public sentiment would compel the passage of stringent laws to limit their spread. Except by showing the public the danger that increasingly threatens, there is no hope of changing the status quo. A large proportion of the better class of unmarried women is totally ignorant that such evils as venereal diseases exist. The words syphilis and gonorrhœa would have as much significance to them as anterior poliomyelitis. And even the man about town is sometimes so unacquainted with the physical signs of syphilitic disease as to give himself away to his more 'knowing' brother.

"Were it not for the ethical and social complication of these diseases, no physician would oppose the report of such cases and passage of some law similar to that proposed by the Germans.

"And what we hold is that the principles which have inspired the legal measures for the restriction and suppression of other contagious diseases are applicable to venereal disease, and that it is the duty of the profession both directly, through recommendations to legislative bodies, and indirectly, through a proper enlightenment of the community, to do what it can to check this rot of western civilization."

NEW RULES OF THE ENGLISH CONJOINT BOARD.

Two important changes in the curriculum required for the diploma of the English Conjoint Board have been approved by the College of Physicians, and now only await the approval of the Royal College of Surgeons.

At the present time three examinations are required,—the first in Chemistry, Physics, and Biology; the second in Anatomy and Physiology; and the third in Medicine, Surgery, and Midwifery.

For the first examination a student is required to have passed one of the usual entrance tests in general education, and that he should show certificates of instruction in the subject of the examination. Such certificates may be obtained at a large number of teaching institutions besides the medical schools. Hitherto it has been the rule not to admit a student to the final examination until five years from the date

[illegible] date of joining a medical school.

For the future the first year of a student's course can be spent in the study of Chemistry, Physics, and Biology at any [illegible] of learning, which are the medical, but which have been approved of by the two Colleges.

A student may now pass his preliminary a year before he leaves school, during his last year he will attend science classes in the same school; he can then go up for his first examination, and four years from the date of passing he will be allowed to go up for his final.

Thus his medical course after joining a medical school will be reduced to four years instead of five.

The second change sanctioned is also important, hitherto the rule has been that two years must elapse between the second examination and the final, and six months between the first and second. It is now proposed that the interval between the first and second should be one year instead of six months.

A MEDICAL SPEECH ON ALCOHOL.

MR. PEARCE GOULD, says *The Lancet*, has been making a speech to the National Temperance League on alcohol and the advantages of doing without it, both in health and in the treatment of disease. It takes a strong man to say the strong things which Mr. GOULD said on the subject, especially if he happens to be a medical man. No doubt, as Mr. GOULD says, the use of alcohol in medical practice is nothing now compared to what it was twenty years ago, much more forty years ago, when Dr. TODD's influence and the reaction from the so-called antiphlogistic treatment were at their height. Public opinion has been enlightened by the evidence of leaders in medicine, such as Dr. PARKES, Sir WILLIAM GULL, Dr. GAIRDNER, Dr. SANDERSON, and others, and medical men have dared to treat disease without alcohol or with only small quantities of it. There are physicians and surgeons of reputation and success who are so strong in their convictions that alcohol is of little use in the treatment of disease, that it destroys tissues, lessens the resistance to microbes, deranges functions, spoils temper, and shortens life, that they are ready to testify to this effect in public in company with redoubtable champions of the temperance cause like the Archbishop of Canterbury, Sir WILLIAM WHITE (Chief Constructor of the Navy), and the Bishop of Derry, who have as much prejudice to contend against in their spheres as the medical man has in his. We recognise with pleasure the good done by such testimony as Mr. GOULD'S. Men whose record and authority in the profession are such as his have the courage of their opinions and their honest testimony will be respected even by those who do not go quite so far in discarding alcohol as an element of diet or as a medicine. On one point the profession is unanimous—that moderation in the use of alcohol must be observed unless certain mischief is to follow; the quantities which our forefathers regarded as moderate would now be thought capable of doing much harm.

THE MEDICAL WORK IN THE FRONTIER CAMPAIGN.

THE *Green Howard's Gazette* (the journal of the 19th Prince of Wales's Own Regiment) published at Gibraltar, writes as follows:—

"Our campaigning ended for the present with our return from the Bazar Valley. If there is anything more to be said about it, I think it is a word of praise for our medical staff and our stretcher-bearers. The latter duty has been performed throughout the campaign by our bandsmen and drummers under Sergeant-Drummer BARRETT and Band-Sergeant GARDNER, under the orders of Surgeon-Captain ALEXANDER, assisted by Assistant Surgeon KHAN. We have them all a hearty debt of gratitude, and their conduct under very trying circumstances and in constant danger has excited universal admiration. It is not very genial work. Almost utterly unarmed, and with none of the excitement of fighting they have always had to go wherever the firing was hottest, and generally to stay there and dress wounds before they could get their wounded out of fire; and in retiring again they have had no chance of nipping quickly over exposed places, as the ordinary fighting man does, because they have been encumbered by their—often dead—burdens. Even when they are not in danger, it is no joke to have to carry a dead or wounded man in a stretcher on a long march over steep and rough mountain tracks, as they have often had to do. Fortune favors the brave. Though these men have been more under fire, and in greater and more constant danger than any other men in the regiment, there is not a man of them who has not come back absolutely without a scratch, although we have had no less than forty-three killed and wounded in the rest of the regiment. All honor to them!"

LUNATIC ASYLUMS IN THE CENTRAL PROVINCES.

IN the Resolution by the Chief Commissioner, on the Reports of the Nagpore and Jubbulpore Lunatic Asylums for the year 1897, it is stated that the total population of the two asylums in the year under notice was 382, of whom 205 were detained at Nagpore and 177 in the asylum at Jubbulpore. The past four years have been marked by a steady and satisfactory increase in the percentage cured, which is partly due to the system now adopted of transferring criminal lunatics on recovery to a Central Jail. Of the 68 admissions during the year the causes of insanity are reported as unknown in 31 cases. Of the 31 cases in which the cause of insanity has been ascertained, four are assigned to moral and 27 to physical causes. Among the latter are ten cases admitted into the Jubbulpore Asylum ascribed to privation, and in most of these the recovery, both mental and physical, has been rapid. No such cases are reported from Nagpore. In eight cases the cause of insanity is believed to be the use of ganja. Both asylums were less healthy than in the previous year. The management of both asylums continued good throughout the year, and reflects great credit on both the Superintendents. In Nagpore the dairy has continued to give excellent results, both financially and in regard to the health of the inmates, and Surgeon-Major HARRIS is congratulated on the results.

ENGLISH IN PRESCRIPTION-WRITING.

SAYS the *Philadelphia Medical Journal*:—"We think it time that Latin should not be used any longer in writing prescriptions. There is not one in a hundred physicians who can write Latin correctly, and a prescription that is one-half or one-fourth in Latin and the rest in English is bastardly ridiculous. We all hide our philologic ignorance under contractions that lead to ambiguity and even danger, and when we can no longer hold out with our wretched sham we are compelled to plunge into English for the directions. All arguments for this medieval nonsense do not amount to a pinch of snuff. As for hiding the knowledge of the drug from the patient, and the advantage to patients travelling abroad, the facts need only to be looked squarely in the face, and the argument for Latin becomes a bad boomerang. The practice is a pompous bit of humbug which should be left to medievalists and not scientists. So, soon as we get our therapeutics out into the day-light of common sense and genuine science, we shall surely dispense with the sorry jumble of bad Latin and poor English illustrated by nine-tenths of the actual prescriptions on file to-day at the drug-stores."

GOVERNMENT DOCTORS AND PRIVATE PRACTICE.

The *Indian Planters' Gazette*, referring to the Association's recent representation to Government, says :—

"We heartily endorse the views expressed in the Indian Medical Association's letter. There is one point which we, as lay men, and having no understanding of these matters, should be glad to see the I. M. A. take up the cudgels about, and that is the following :—Why, if the State-paid doctors are to be permitted to indulge in private practice, other than of a consultative nature, some protection should not be afforded by the State to these State-paid doctors' other employers —the public. Why, that is to say, should a State paid doctor not be liable to be hauled over the coals should he refuse to attend a patient who is not a Government servant, one of the class who employ him in what, we consider, is his illegitimate sphere? Did a private practitioner refuse to turn out to visit a patient in an emergency—as some of these State-paid and public-paid doctors have, times out of number refused to do —he would be a marked man and he would undoubtedly find himself in the unfortunate position of OTHELLO before very long. The State-paid doctors, we are aware, take fees from the public as a favor and attend them in the same spirit, if they refuse to turn out in an emergency to attend one of their private patients they are none the worse off, for even if they lose their private practice, so long as they perform their duties to the State, they have always their State pay to fall back upon. If the Government of India turn a deaf ear to the letter of the Indian Medical Association—this we think should be the next question for the Association to put."

HAFFKINE'S PLAGUE SERUM DOUBTFUL.

THE inoculations with Dr. HAFFKINE'S plague prophylactic performed on Mr. LEE and Dr. ALLES at Colombo on Saturday, 28th ultimo, have, says the *Ceylon Times*, proved unsuccessful. A representative of that paper, who saw Dr. PERRY, was informed that this was due, possibly to an insufficient quantity of the serum being injected. The serum, so far as they knew, was all right, and it is very likely that the first-named two officials will stand another inoculation. The serum can be kept for an indefinite period, provided it is not exposed to light, and the stock in Colombo was kept in the best order. Asked as to whether the serum which was used could possibly have been rendered ineffective, the supposition being that the plague bacilli could not exist in a latitude as low as Ceylon, the information was vouchsafed that that was not at all likely. The theory put forward by some that the plague bacilli could not exist in these latitudes required scientific support. It was only a matter of experience and could not stand scientific reasoning. Here there was everything favorable for bacilli to thrive—heat and damp, and given these, all bacilli would multiply and flourish.

COOKERY AS A BRANCH OF MEDICAL STUDY.

The Lancet says :—"The medical faculty of the State University of Minnesota has decided to add a new course to the medical studies of that institution. A soon as the new term begins the senior class will have to take up the study of cooking. On the catalogue this study will be designated 'Practical Dietetics.' The students will have to go into the 'laboratory' and make soups, teas, gravies, farinas, and a host of other dishes for the sick and convalescent. Is the time coming when the overburdened medical student will be required to 'take up the study' of cutlery (to be designated 'Practical Scalpelography') because he may have occasion to use knives; of plumbing because it may fall to his lot to inspect drains; of bed-making, sweeping, and dusting that he may more efficiently direct the practice of these mysteries in the sick room, of hardware manufacture that he may be able to pass a sound judgment on the quality of his gallipots'"

THE MEDICAL PROFESSION.

THE *Philadelphia Medical Journal* says :—

Superstition, intuition,
Universal imbibition,
Disappointment and rejection;
Then again sound observation,
Clinical empiricism,
Diet rules and regulation,
Theories of chemist, analytical;
Puffs of cure-all, hypocritical;
Grateful touts of "perfect cures";
Wealthy, pampered epicures!
Science scoffing, Fashion smiling;
Yet the wells are still beguiling
Men and women for their healing—
Pure reason—proved by feeling!
"Powers of nature occult still";
Atoms, cosmic force or veil!
So the cycle we fulfil,
And the fruit of erudition
Mystery—like superstition!

SUMMARY OF MEDICAL AND SURGICAL WORK PERFORMED IN GONDAL HOSPITAL DURING 1896.

DR. HARI BHICAJI, Chief Medical Officer, and his Assistant Dr. S. S SHAH, L M & S, send us the following :—

1,156 in-door and 9,897 out-door patients were treated.

168 Major and 613 minor surgical operations were performed during the year. The following list gives the names of surgical major operations :—

Removal of large tumours from parts	8
Removal of foreign bodies deeply situated and in the dangerous neighbourhood	4
Opening of large abscesses	27
Operations on the eye and its appendages ...	67
Plastic operations of the ear	2
Plastic operations of the nose	2
Lithotomies	4
Litholapaxies	4
External urethrotomies	4
Tenotomies	3
Paracentesis of the abdomen	12
Amputations	13
Reduction of dislocations	6
Forcible extention of flexion	2
Reparative operation of the scrotum	3
Operations for hæmorrhoids	4
Removal of diseased lymphatic glands	3

CAN COMPANIES CARRY ON MEDICAL PRACTICE?

The Lancet says :—"It would seem incredible to the uninitiated that it should be possible for totally unqualified persons in the exercise of medical practice to be protected by the Companies Act. But such is the case. The subject was brought before the General Medical Council by a member (*in camera*, who pointed out the valuable opportunity afforded by the occasion of the Companies Act Amendment Bill for providing a remedy for such a scandal. The Council afterwards gave leave for the motion on the subject passed (*in camera* to be placed on the minutes. It is as follows :

"'That the President, Mr. TOMES, and Mr. HORSLEY be a committee to take such steps as they deem most effective to induce the Government to insert a clause in the Companies Act Amendment Bill now before Parliament, with the object of preventing the registration of companies to carry on medical, surgical and dental practice.'

"The General Medical Council will do good service if it succeeds in this matter."

EXAMINATION FOR M.R.C.P. LOND.

A CANDIDATE for the M.R.C.P. is required to show a good general acquaintance with medicine, theoretical and practical. The following books may be read or consulted, but there are others which would serve the purpose equally well: TAGG'S *Principles and Practice of Medicine*, edited by Dr. PYE-SMITH (London: J. and A. CHURCHILL, 40s.); or OLLER'S *Principles and Practice of Medicine* (London; YOUNG J. PENTLAND, 24s.); GREEN'S *Pathology*, edited by MONTAGUE MURRAY (London: H. RENSHAW, 1895, 7s.); SIMS WOODHEAD'S *Practical Pathology* (London: YOUNG J. PENTLAND, 25s.); GOWERS'S *Manual of Diseases of the Nervous System* (London: J. and A. CHURCHILL, 1895); WHITELEGGE'S *Hygiene and Public Health* (London: CASSELL and Co., 7s. 6d.) Reference should also be made to articles in CLIFFORD ALLBUTT'S *System of Medicine* (MACMILLAN and Co.). We cannot recommend any book on medical anatomy, but should advise "M.D." to read parts of QUAIN'S *Superficial Anatomy*, 10th edition, 1896 (LONGMANS, GREEN, and Co.), and to supplement this with reference to any standard book on anatomy.

A STRIKING INSTANCE OF MATERNAL IMPRESSION.

GARDINER (*Amer. Jour. of Obstet.*) gives an instance of maternal impression which is no less striking than it is well-authenticated. An American woman had, during her third pregnancy, an unbearable craving for sunfish. During the fourth month her husband brought home for her some of these fish alive in a pail. She stumbled against it on the porch, and one of the fish flopped over the edge of the pail and came in contact with her leg. It sent a cold chill through her, but the pregnancy was not disturbed, and nothing further was thought of the accident until the child was born, when, to her surprise, a nevus in shape and size closely resembling a fish was seen upon the leg of the baby in the part corresponding to that of her own leg with which the fish came in contact. Otherwise the child's health was perfect, and she lived to grow up into a healthy woman. The annoying craving for sunfish, which was temporarily present in her mother, existed in her throughout a long life. It much resembled a drug habit. Time and again she has eaten sunfish until from repletion she has vomited, and then again has eaten them with unabated appetite.

SPECIALISTS AND PRACTITIONERS.

THE *Journal of Eye, Ear and Throat Diseases* quotes from the *Archives internationales de laryngologie, d'otologie et de rhinologie* the following regulations that have been adopted by the Medical Society of the Ninth District of Vienna: 1. The specialist is a physician who renounces the exercise of every other branch, with the exception of a very limited portion. 2. The specialist should not undertake any treatment without coming to an understanding with the ordinary physician of the family. 3. The ordinary physician should be informed of the diagnosis and his advice taken upon important interventions. 4. It is impossible for the ordinary physician to direct the treatment to be followed; the specialist should let him take part according to his ability. 5. The patient should not be referred by the specialist to a third physician, except with the assent of the ordinary physician.

THE HYDERABAD CHLOROFORM COMMISSION.

Dr. T. LAUDER BRUNTON, M.D., writes to the *British Medical Journal* as follows:—"Although Mr. HILL'S letter in the *British Medical Journal* of 4th June, p. 1492, might lead a reader, who had not followed the controversy, to think that I had made an attack upon him instead of merely defending the work for which I was responsible, yet my only object [illegible] to defend this work against the attempt he made to destroy it. As he has completely failed in this attempt and now retires from the contest, leaving the trustworthiness of the experiments beyond question, my object is attained. The only pity is that Mr. HILL has not recognised until now that the introduction of a personal element into a controversy does not forward the ends of science. Had he done so before he brought his accusations against the work of the Hyderabad Commission, the whole of this controversy would have been avoided."

THE ANGLO-INDIAN CAUSE AT MUSSOORIE.

Dr. JOHN MORTON, M.D., Secretary to the Imperial Anglo-Indian Association at Mussoorie, writes as follows to the *Statesman*:—"In connection with the agitation over the Anglo-Indian Cause that is going on at Mussoorie, will you allow me to state, that the news that Dr. J. R. WALLACE has been unanimously chosen as the delegate of the Anglo-Indian Association of Calcutta, to represent that body at the forthcoming Conference of Delegates from all India, to be held, as now suggested, at Mussoorie, has been received with unqualified satisfaction. Dr. WALLACE has done yeoman's service for the cause of the Domiciled European Community, and his presence at Mussoorie will unquestionably do a vast amount of good in advancing the inauguration of the Anglo-Indian Association at this delightful hill station. Dr. WALLACE, should he be able to come to us, is sure to have a most cordial reception."

A DEFINITION OF MEDICAL PRACTICE.

SAYS the *British Medical Journal*:—"JOHN HUNTER said that 'definitions are the most damnable things,' and certainly the definition is often by far the most troublesome part of a proposed legal enactment. A Kentucky judge has recently given a definition of medical practice which seems to be fairly satisfactory. In pronouncing sentence upon an 'osteopath' who was convicted of having subjected a child suffering from tuberculous disease of the hip-joint to cruel and unnecessary torture, he laid it down that 'any person, who for compensation professes to apply any science which relates to the prevention, cure, or alleviation of the diseases of the human body, is practising medicine within the meaning of the statute.' This concise definition is probably comprehensive enough to include every form of quackery."

THE SO-CALLED CALCUTTA PLAGUE.

WHAT the daily papers still style the "sporadic plague" continues to claim two or three daily victims. From the 16th April up to the 26th June, a whole *posse* of plague Doctors, Inspectors, and an army of Vigilance Committees, have managed to ferret out 143 cases of sorts, of which 106 have proved fatal. Meanwhile the death-rate of Calcutta stands at 33 *per mille* compared with 30 as the mortality of the previous five years. There have been 1,775 anti-plague inoculations (about 300 of these on purdah women). It would be extremely interesting to obtain a verified analysis of these plague cases together with a verified diagnosis in each. It would be still further interesting to analyse the death-rate from fevers in the city during the past three months, and to compare such a statement with the fever mortality of the past five years during the months of April, May and June. We believe there are no less than 16 plague doctors employed in the city. Allowing that each of these officers has discovered an equal number of these so-called plague cases, we have on an average 9 cases per man in two and a half months or 4 cases per man per month. We pay each plague officer 500 rupees per mensem, therefore the discovery of each of these malignant fever cases costs the Municipality and the Calcutta tax-payer 125 rupees per head. Judging by the state of events during this manufactured plague invasion, we might well ask the Bengal Government, the Plague Commission and all concerned in this unhappy fiasco, is the game worth the candle?

[illegible]

[illegible] ... plague ... doubt that the [illegible] is exceeding that [illegible] Great Britain [illegible] extremely rigid [illegible] regulations. With regard also to plague inoculation [illegible] must be careful not to rush to extremes. It would be wrong to enforce on the Indian population an experimental preventive, which, however promising, could not in the present state of our knowledge be rendered compulsory in any English city."

THE PLAGUE IN BOMBAY AND THE PUNJAB.

THE plague diminishes in intensity and virulency in Bombay and Karachi. In the former city there are now on an average about ten to twelve daily seizures with six to ten deaths. In the latter city the returns show about six to eight daily seizures with four or five deaths. In Karachi up to the present date (27th June) there have been 2,968 cases with 2,286 deaths. There are no cases reported from Lahore nor any from the Jullunder and Hoshiapur Districts of the Punjab, where the disease was epidemic a short while ago.

ROUND WORM CAUSING APPENDICITIS.

DURING a clinic in the surgical amphitheater of the University College of Medicine, Richmond, Va., held 8th January 1898, for Dr. HUNTER MCGUIRE, Dr. JOSEPH PRICE, of Philadelphia, exhibited an appendix which he had removed from a patient the day before because of appendicitis. In the appendix was a full-sized round worm (ascaris lumbricoides) which had evidently been a cause of the appendicitis. This case was unique in his practice in that it was the only time he had ever found a worm in the appendix. He has, however, many times found all sorts of foreign bodies, as seed, etc., in the appendices he has removed.

A HANDSOME AMERICAN BEQUEST.

MRS. J. C. AYER, relict of DR. AYER of patent medicine fame, has left $50,000 to the University of Pensylvania. Related to the CLAFLINS of dry-good name and a Yankee by birth and ancestry. She married Dr. AYER when he was only a drug clerk in Lowell; but though she developed very expensive tastes and extravagant habits, business prospered so well that at her husband's decease she became the possessor of $15,000,000 dollars which she transferred with herself to Paris where for several years she spent her great income right royally in leading society and gratifying her tastes and love of display. She leaves three children who reside in New York City.

PUBLIC ANTI-PLAGUE MEETING IN CALCUTTA.

AN influentially initiated requisition is in course of signature, calling upon the Sheriff of Calcutta to convene a public meeting on an early date at the Town Hall, at which the present health of the city and its sanitation will be discussed. The requisition urges that the time has come when independent professional and unbiassed opinion should be associated with the Government and Municipal Medical Officers in diagnosing and deciding the nature of what are styled suspected plague cases.

A DETERMINED STUDENT.

IN Vienna, recently, a medical student, æt 70, *died* just before his final examination; while another who has *just* graduated in Warsaw in his 75th year of life, commenced his course in 1843, but was obliged to suspend it from lack of funds for nearly 20 years, and had barely returned and resumed his course of study when he was deported as a political prisoner to Siberian salt mines, where he slaved from 1863 to 1895, when he obtained a pardon and returned to Warsaw to graduate at last.

AN AMBULANCE SHIP.

THE United States ambulance-ship *Solace* is not a hospital ship, but, as the name implies, a place for the temporary treatment of the wounded. She carries powerful steam launches and barges for transferring the sick and wounded at sea. She has a completely fitted up dressing-room, dispensary, operating-room and disinfecting-chamber; there are state-rooms for wounded officers and spacious wards for injured seamen. There are 4 medical officers, 2 apothecaries, 6 trained nurses, 2 laundrymen, a cook, and 4 mess-attendants attached to the medical department of the ship.

It may [illegible] LANSDOWNE [illegible] army to learn that Lord [illegible] most strongly in favour of the [illegible] views have received the cordial [illegible] ral Officers now in command.

A house in the cantonment, [illegible] Apothecary, was struck by lightning [illegible] burned down. No one was hurt [illegible] was saved. The artillery and K. O. [illegible] on the spot with their fire-engine [illegible] bed-ridden for the past six months [illegible] kindly taken in by Surgeon-Captain [illegible] who resides next door.

Clarke records a case of Cæsarean section in a case of foot and hand presentation complicated by funic prolapse. The uterus was in a state of tonic contraction; the fœtus was dead and impacted; and there was great vulvar œdema. Evisceration was practically impossible. Uninterrupted recovery followed the operation. The pelvis was normal and of full size.

At the Whitechapel County Court on 3rd June, before his Honor Judge Bacon, Leopold [illegible], M.D. Vienna, was sued by the Society of Apothecaries for practising as an apothecary without the necessary diploma. Judgment was given against the defendant for the full amount claimed—£20 and costs.

Lord Playfair, who has just died, was the son of Deputy Surgeon-General George Playfair of Bengal. He was born in Meerut and was partly educated in India. His brother, Dr. W. S. Playfair, Professor of Obstetrics in King's College, London, was also born in this country.

Johnston prescribes magnesium sulphate 2 drachms, with aromatic sulphuric acid, 5 minims every 4 hours, until plenty of bile appears in the stools. He then gives ox-gall in water. Dysentery is said to disappear in two or three days under this treatment.

At one of the large dispensaries having special department an applicant recently took tickets for each class, and spent the day obtaining expert opinions on the condition of his eyes, nose, throat, internal organs, and skin, and it is said even had a little surgery done and got a tooth pulled.

Quarantine, if continued for considerable periods of time, is safer with carefully regulated communication than under the rigid non-intercourse rule. This should be permitted under rules having for their object the greatest safety to other communities and the least inconvenience.

Surgeon-Colonel Townsend, P. M. O., Khyber Force, having proceeded to assume charge of the Sirhind District, Brigade-Surgeon Lieutenant-Colonel Blood, from that district, replaces him in charge of the Khyber Brigade.

Mr. A. J. Hughes having gone home, the duties of the Conservancy Department of this city will now be supervised by Dr. Cook, the Health Officer. The Government does not intend to supersede Dr. Cook in his work as a plague officer.

The cure of congenital goiter in a nursling by thyroid medication taken by the mother, is reported by Moses. The child showed the effects of the treatment more promptly than the mother.

Surgeon-Captain J. G. Jordan is appointed to act as Deputy Sanitary Commissioner, Metropolitan and Eastern Bengal Circle, and to be an Assistant Health Officer of the Port of Calcutta, in addition to his own duties.

Surgeon-Captain J. C. S. Vaughan is re-appointed to be Deputy Sanitary Commissioner, Western Bengal Circle, and is also placed on special duty in connection with anti-cholera inoculation.

Surgeon-Captain W. J. Buchanan acts as Superintendent, Central Jail, Dacca, in the room of Mr. W. A'C. Beadon, who goes on three months' leave from the 19th proximo.

[illegible]

[illegible] Lethbridge and [illegible] C.I.E., [illegible] granted the two extra [illegible] which [illegible] for the Bengal Establishment for the year 1898-99.

Surgeon-Major Clarence Smith, of Madras, has been urgently summoned to Hyderabad, to attend the Nizam's brother-in-law, Sir Kurshed Jah, who is very dangerously ill.

A Surgeon-Captain of the Indian Medical Service will shortly be selected for appointment to the medical charge of the regiment which has recently gone to Uganda.

The maximum allowance permissible to officers deputed to Paris for hydrophobia treatment is Rs. 1,200, not Rs. 12,000, as has been erroneously stated.

The Freedom of the city of Edinburgh was conferred on Lord Lister on 15th June, Viscount Wolseley was similarly honored on the same day.

We hear that Dr. W. G. King, Sanitary Commissioner, who was granted three months' privilege leave, leaves Madras for Calcutta on the 1st July.

Surgeon-Lieutenant A. T. Gage, I.M.S., is to be appointed Curator of the Herbarium attached to the Royal Botanical Gardens, Seebpore.

Dr. Hindmarsh, F.R.C.S., Edin., has been on a visit to Calcutta with a view to studying the plague serum, so as to be able to tackle the scourge should it break out in Tirhoot.

Dr. T. F. Pearse, F.R.C.S. Edin., delivered over and Mr. G. M. Davies received charge of the Railway Detention Camp at Reti on the 23rd May 1898 in the forenoon.

Surgeon-Colonel Edward Lawrie was thrown from his bicycle through colliding with a goat at Hyderabad and fractured his left arm above the elbow. We are pleased to learn Dr. Lawrie is doing well.

Surgeon-Lieutenant-Colonel S. Mair is gazetted to officiate as Inspector-General of Prisons, N.-W. P. and Oudh, while Surgeon-Colonel G. C. Hall is on deputation.

Surgeon-Major-General S. A. Lithgow, C.B., D. S. O., has been appointed Honorary Physician to the Queen, *vice* Surgeon-General S. Currie, deceased.

We regret to announce the death of Surgeon-Colonel J. Williamson, P. M. O., Oudh and Rohilkand, at Lucknow, on 21st June, from cholera.

Surgeon-Captain A. Gwyther is appointed to be the Inspecting Medical Officer at Chausa station on the East Indian Railway.

Surgeon-Major J. H. T. Walsh is appointed to act as Civil Surgeon of Murshidabad during the absence on deputation of Surgeon-Lieutenant-Colonel E. Bovill.

Surgeon-Major T. R. Macdonnald, officiating Civil Surgeon Murshidabad, is allowed eighteen months' furlough.

Surgeon-Captain B. H. Deare is appointed Civil Surgeon of Nadia.

Surgeon-Captain R. C. Oldham is appointed Civil Surgeon of [illegible].

Surgeon-Captain A. W. Russell, I.M.S., died at Bareilli, on 22nd June, of heat apoplexy.

Dr. Moti Chand, Rai Bahadur, has been appointed to officiate as Civil Surgeon of Amritsar.

[illegible]

Varieties of Coma.

Dr. J. T. Bixby, of Denver, in an article in the *New York Medical Journal*, entitled "Difficulties in Determining the Causes of Coma," says:—

"The proper management of cases of coma depends so largely upon our knowledge of the cause of the condition, that it is necessary for us to have a comprehensive knowledge of the various symptoms of the coma that results from each of the numerous causes.

Coma may be gradual or sudden in its onset—complete or incomplete. Stupor or partial insensibility has been used to designate incomplete coma.

Coma other than that caused by hyperpyrexia, typhoid fever or cancer in parts of the body other than the brain, the author divides for the sake of convenience into the following seven groups:

1. Transient coma.
2. Coma from lethal doses of medicinal agents.
3. Coma from poisons other than medicinal agents circulating in the blood.
4. Convulsive state from coma.
5. Voluntary coma.
6. Coma from profound disturbances of the cerebral circulation, but unattended by organic lesions of the brain substance.
7. Coma from organic disease of the brain.

Were it not that many of the above causes of coma are so infrequently factors in giving rise to unconsciousness, mistakes in diagnosis would be much more frequent than they really are. The major portion of the author's article is made up of a careful *résumé* of the symptoms belonging to the different groups into which he divides the comatose state and the causes thereof."

Experiences with Leprosy.

Stricker relates his experience in India and Egypt. He first discusses the pathogenesis of the disease. He states that (1) lepers eliminate with the nasal secretion the leprous bacillus often in extraordinary numbers, and during the greatest period of the disease, and (2) the front part of the nasal mucous membrane, and mostly that covering the nasal septum, is the place which leprosy first, and perhaps always, attacks. The author has examined 143 lepers from this point of view. In 55 out of 57 cases of tubercular leprosy the leprous bacillus was found in the nasal secretion, and yet in only 2 cases were there any leprous nodules in the nose.

In 45 out of 68 cases of anæsthetic leprosy, and in 27 out of 28 of the mixed form, the bacillus was also found. Only one examination was usually made, and not more than two or three cover glass preparations. In 33 out of 143 cases there was evidence of disease in the bronchi, but in only 14 of these were leprous bacilli found in the sputum. In 10 out of 27 cases in which the exudation from ulcers was examined, the leprous bacilli was found. In 21 cases the bacillus was demonstrated in the secretion of the fauces on 9 occasions. The author thus concludes that the nose is the chief place from which the leprous bacillus is given up, and that in the nose the first effect of the leprous bacillus is produced. In the exceptional cases where no bacilli was found, there were always present the most marked traces of a nasal lesion, which in an active state would produce secretion. The nasal lesions are varied. In the first stage the mucous membrane may look healthy, or at most there is slight increase of a slimy secretion. The first visible change is a simple dry catarrh in circumscribed patches, which eventually present a raw surface. In advanced cases shallow or deep ulcers are visible in one or both sides of the septum. Sometimes there is a hard swelling only, which may be extended to adjacent parts, and produce a nasal stenosis. Perforation of the sputum, or even more destructive changes, may occur, so that the whole nose may be eaten away. The secretion is mucoid, purulent, or of a characteristic slimy character; the last named contains most bacilli.

The author gives a table showing the nature of the nasal lesion in his cases. Leprosy can spread from the nose to other parts by way of the lymphatics, or more rarely by the blood. In the tubercular form the lesions mostly affect the face and also of the nose, and even in the anæsthetic form early changes may be seen in the face The author has found the leprous bacilli in the blood in 4 cases. Finally, he draws attention to the importance of the nasal treatment, not only on account of the patient himself, but also in order to prevent the spread of the disease.—*Gulliard's Med. Jour.*

Prophylaxis of Nephritis in Scarlet Fever.

To prevent this dangerous complication Professor ALFARO advises:—(1) Promote diuresis by a milk diet with plenty of drinks and cold hydrotherapy (in severe cases), but (2) avoid elimination per kidneys of phenol, salicylic acid, antipyrin, and all other irritating substances, whether as medicine or as food. (3) Keep skinfunction active by general friction with fatty substances and tepid baths during desquamation. (4) Frequently employ mild antiseptic applications to keep the mouth, nose and pharynx aseptic; but (5) on no account use antipyretics or antiseptics that may injuriously affect the kidneys by absorption or elimination, and (6) above all avoid sudden or continued exposure to cold air.—*Anal del Circ med. Argent.*

Auscultation of the Mouth.

As a means of diagnosing incipient tuberculosis, &c., is highly advocated by Professor GALVANI who shows the rales are reflected from the bucco-pharyngeal cavity as from a sounding board and a peculiar jerky glottic sound, which coincides with the rhythm of the pulse of tuberculous patients is noticed not in the inspiration, but commencing in the pause, attaining its height about the middle of expiration, diminishing and vanishing completely at the commencement of the inspiration. These sounds are *not* heard in the mouths of healthy persons.—*Gaz. degli Osp. e dei Clin.*

Iodoform Injections in Tuberculous Lymph Glands.

HAMMERSCHLAG has been remarkably successful with intra and peri-glandular injections even in the large-celled hyperplastic lymph glands on tuberculous subjects, which usually are sent to the surgeon. After local anæsthesia he injects 1 to 2 *cc.* of a 5 to 10 per cent iodoform glycerin emulsion first on one side and a week later on the other. He declares the results were remarkably quick and so satisfactory that the tumours subsided until not so much as a trace of them could be seen above the skin and no scars were left.—*Deut. Med. Week.*

Pseudospastic Paresis with Tremor.

DR. ONUF describes a case of the rare affection to which FUERSTNER gave the above name: A man, aged 40 years, a heavy drinker, was struck on the top of the head by the corner of a trap door. There was immediately paralysis of the face and all the limbs, with loss of sensation, but no loss of consciousness No external injury could be found. After twenty minutes speech and facial movement were completely recovered; power was recovered more slowly in the arms and legs. After four months power was completely restored, but there were curious tingling sensations in the hands; the most striking and troublesome symptom remaining was the occurrence of a violent trembling and shivering of the whole body on the slightest excitement. The deep reflexes were greatly increased, and any attempt to elicit them caused shivering movements of the limbs; plantar and abdominal reflexes were absent. Gait was high stepping, of spastic type. The pathology of this affection is uncertain. Suggestions have been made that it is a functional disturbance or traumatic neurosis, that it is due to a traumatic lesion of the spinal cord, or that it is due to capillary hæmorrhages in the brain. None of these theories, however, will explain all the cases that have occurred.—*Pac. Med. Jour.*

SURGERY.

Treatment of Spinal Caries by Suturing the Spinous Processes.

HAVING chloroformed the patient and placed him upon his abdomen in three quarters pronation, A. CHIPAULT runs an incision along the spinous processes extending over the borders of the curvature above and below by 2 or 3 vertebræ. The soft parts are drawn out of the way and the spinal processes laid freely bare without touching the interspinal ligaments. Reduction of the gibbus having been made, a silver wire is passed through the ligamentum spinale and cut off in such manner that a free end, twice as long as the incision, remains hanging on each side of the perforation. The spinal processes are sutured together by crossing these two wires and passing each of them separately through the ligamentum spinale immediately below it and then through each successive one until the lowest of the exposed spinal processes is reached when the ends of the wires are twisted together, after which the soft parts are drawn together without drainage, a bandage applied and the patient put to bed. The dressings may be changed and the sutures removed from the soft parts in 5 to 10 This operation is useless in cases of advanced deformity.—*La Med. Mod.*

Unusual Laryngeal Growth.

A RUSSIAN Jew, æt. 38, complained of hoarseness for a year, but had no cough, dyspnœa, emaciation, glandular enlargement or pain. From the anterior commissure to the arytenoid cartilage of right half of his larynx was occupied by a white, slightly corrugated mass with irregular edges looking all the while like a plug of cotton tucked into the ventricle, but which did not interfere with the laryngeal movements. Dr. J W. GLEITSMANN, who excised about one quarter of this mass in two sittings thinks it was a hard papilloma, probably malignant and possibly carcinomatous. There was papillary proliferation of the mucosa with a thickened epithelial covering, the outer portion of which was horny and the underlying epithelia were proliferated and the nuclei split up. A small-celled infiltration of the submucosa was noticed, and the epithelial layer showed a tendency to invade the subepithelial tissue, while the individual tubules or ducts of the marginal glands were so affected that the cylindrical epithelium merged from one duct into another.—*Amer. Med.-Surg. Bul*

Intestinal Suturing.

IN enterotomy the abdominal wound should be partly closed with silkworm gut sutures which, being introduced at both ends of the wound, should include the peritoneum, bringing it as near the cut margin as possible, while the wall of the bowel should be stitched to the skin-margin, closely surrounding it, with fine silk-sutures which should involve skin and serous and muscular coats of bowel. After opening the gut silkworm sutures, transfixing the whole thickness of the intestinal wall, should be passed laterally from the skin toward the gut, to ho'd the latter in position and in closing abdominal wounds interrupted silk or silkworm gut sutures are best. The chief modes of applying sutures are:—CUSHING'S right-angled continuous suture, CZERNY'S, DUPUYTREN'S, GELY'S, HALSTEAD'S, LEMBERT'S, and SEMI'S modification of JACOB'S method of applying suture in invaginating method of uniting free ends of the gut in resection; but of all these LEMBERT'S suture has stood the test of time, and may safely be recommended as the best form of suture.—*Pac. Med. Jour*

Fractures of the Clavicle.

MAY be oblique, transverse or longitudinal, rarely compound, comminuted or broken in more than one place, and

with the exception, of course, of the middle, fracture of the clavicle is much more frequent than that of any bone. To treat it Dr. Geo. H. Spencer, at the point where the depression is most marked and corresponding the wound edges lift up the splinter fragments with a periosteal elevator which holds the bits in position while they are drilled for the reception of silver sutures. The periosteum is also sutured and the skin wound closed after which the arm is dressed in the Velpeau dressing with a light plaster-of-Paris bandage. By this method Dr. Spencer claims that the risk of injury to the artery and vein, the interposition of the muscle fibres which would delay union and injuries to the lungs are avoided, while the deformity resulting from this injury is considerably lessened by this method.—*Amer. Med. Jour. Science.*

Treatment of Snake-Bites.

The *Presse médicale* calls attention to the following method of treatment advocated by Mr. Ferraton: 1. A ligature should be applied above and as near as possible to the wound. Sucking the wound should be practised if the integrity of the buccal mucous membrane of the person who does the sucking is assured. 2. The wound should be washed with a one-in-sixty fresh solution of calcium hypochlorite. In the wound and round it from eight to ten injections of a cubic centimetre each of the same solution should be practised. 3. The ligature should be removed. 4. If antivenomous serum can be easily procured, an injection of ten cubic centimetres should be administered as soon as possible, with the usual antiseptic precautions. Ordinarily this quantity suffices, but if the serpent belongs to a very dangerous species, or if medical intervention has been delayed, it is best to inject two or three doses simultaneously; in urgent cases intravenous injections should be practised in the bend of the arm. In adults the injection is still very efficacious an hour and a half after the subject has been bitten. 5. If threatening general symptoms are produced, a proper treatment should be instituted; for instance, the administration of caffeine or of ether, the injection of three twentieths of a grain of strychnine, general friction, inhalation of oxygen, and artificial respiration, and keeping the patient warm. 6. Antiseptic dressings should be applied to the wound.

If it is not possible to obtain these drugs, the calcium hypochlorite may be replaced by Javelle water, Labarraque's solution, or a one-per-cent. solution of potassium permanganate. If the antivenomous serum cannot be procured, subcutaneous injections of the calcium hypochlorite must be practised. The employment of large saline injections is also indicated.—*N. Y. Med. Jour*

Case of Double Penis.

Emilio Ciofft records a case of a child born at Sala, Consilina, with double penis and atresia of the anus. The parents refuse operative interference. Each penis is well formed, with prepuce, glans, urethra and corpora cavernosa To one penis is attached a testicle, to the other a simple scrotal fold and feces and urine are discharged from both urethal orifices.—*Reforma Medica.*

Aspiration Treatment of Inguinal Bubo.

R. Mabee reports 70 per cent. cut of 200 cases cured by aspiration of the contents of the bubo, requiring no further operation (75 per cent. with one single aspiration). The cavity is then rinsed with salt solution and a gauze pad applied, held with a zinc plaster and compressing bandage outside to reduce the distended skin and prevent the accumulation of more pus. If the deep-lying glands are found to be involved, total excision is necessary, but otherwise aspiration will be found sufficient.—*Internat. Med. Assoc.*

OBSTETRICS AND GYNECOLOGY.

Complete Inversion of the Uterus following Abortion.

Switalski records the case of a woman, æt. 36, who had four normal labors—and aborted at fifth month, followed by excessive hæmorrhage and inversion of the uterus. Attempts at reduction under anæsthesia, after the methods of Kiwisch and Emmet, failed, but had the effect of producing an extensive laceration in the anterior cervical wall. An opening was made into the pouch of Douglas through the posterior fornix, when it was found that the entrance to the cup-shaped depression was so narrow as scarcely to admit the point of the finger. An incision (after Kustner) was made through the posterior uterine wall, commencing 2 cms. above the external os, and reaching to 2 cms. from the fundus, allowing the latter to be easily reinverted. The uterus was then brought into the vagina, through the opening into the posterior fornix, and the wound on the posterior wall sutured with subliminate catgut.

Microscopic examination of pieces of mucous membrane and muscular tissue, removed previous to reinversion, showed changes similar to what one would expect to find as a result of long-continued vascular and lymphatic engorgement.

Switalski refers to two other cases, one following an abortion at the fifth month, the other at the fourth; in the latter the inversion occurred after the expulsion of the placenta three weeks after that of the fœtus.

He suggests that before beginning manual reposition it is well to ascertain the condition of the cervical wall, as, on account of its thinness from muscular degeneration, it is apt to tear. Reference is made to the uncertainty and danger of Thomas' operative treatment of such cases, and Switalski gives preference to Polk's method of opening the vesico-uterine fold of peritoneum, incising the constricting ring at the entrance of the funnel-shaped depression, and then reinverting the uterus.—*Edin. Med. Jour.*

Management of the third stage of Labor.

Professor Byrne read a paper on this subject. He said that there were two factors to be considered in the third stage of labor: (*a*) the separation and (*b*) the expulsion of the placenta and membranes, and it would be necessary to examine how nature herself managed this period. He then discussed the various theories put forward to account for the separation of the placenta—*viz.*, the retro-placental hæmatoma view, the detrusion theory, and the view that separation of the after-birth is due to a disproportion in size between the placental site (where it is attached to the uterus) and the placental area (placenta itself). In the settlement of this question they must be guided by evidence afforded from two sources: clinical experience and sectional anatomy. Professor Byrne pointed out the special value of the sectional anatomy of the third stage of labor and showed that the original observations in this direction made by Dr. Barbour of Edinburgh had been fully confirmed by Pestalozza of Milan, Strahl of Berlin, and Pinard and Varnier of Paris. It had thus been demonstrated that the placenta did not separate until the third stage of labor, that its area could contract to almost one-half its size without separation taking place, that there was no hæmorrhage behind the placenta, and that there was no cavity in the uterus beyond that occupied by the after-birth. In the management of the third stage of labor some had urged an expectant plan until nature herself expelled the placenta; others (Ahlfeld advised waiting two hours. The objections to this treatment were stated and Credé's method and the "Dublin" plan were very fully described and commented. Professor Byrne said they must try to allow the placenta to be separat-

ed by the uterus itself, and that when this had occurred and when the upper, thick, active, contracting portion of the uterus had driven the placenta into the lower uterine segment (which was expansile and passive) or vagina that pressure from above the axis of the brim should be made to expel the afterbirth. He pointed out how they could ascertain clinically that there was separation of the placenta. In most cases the uterus by its retraction and contraction effected this itself; in a few cases gentle massage was necessary. In conclusion, he recommended as the best way of conducting the third stage of labor: (a) following down the uterus when the fœtus was being expelled, (b) the constant control of the uterus by the hand; (c) the turning of the patient on her back after the birth of the child, (d) waiting if possible, for nature to separate the placenta; (e) then expression of the afterbirth; and (f) the continued control of the uterus with the hand until the binder was applied.—*Lancet.*

Distemper of Dogs as a Cause of Puerperal Fever.

A CASE reported by Dr. OCTAVIUS BEVEN suggests that the virus of distemper may be directly contagious to human beings. Briefly stated the author was called to confine the wife of a kennelman whose cottage adjoined the kennels where a number of the dogs had distemper. Two of the dogs being seriously ill, the keeper had to be in such close attendance on them that he could not find the time to even change his clothes when he came in from the kennels to see to his wife, who had just been delivered of a male child. This was her eleventh confinement, the perinæum was intact and there was very little bleeding. Seen the next two days she said she was quite comfortable, her pulse and temperature were normal, and the lochia perfectly sweet (*i.e.*, on 9th March) but on 11th March (two days later) her temperature ran up to 104·2 °F and her pulse to 132, and despite careful attention she became delerious, and gradually sank and died on the 26th March. The drainage of the cottage and kennels was all that could be desired, and there was no history of the nurse, who attended her, having been near a woman suffering from puerperal fever; nor had typhoid fever occurred, for some time, within a radius of 6 miles of the place, but enquiry elicited that on the afternoon of the 9th March the husband had, contrary to instructions, come direct from the kennels to see his wife with whom he sat for some time and slept on the bed by her side during the night. Though Dr. BEVEN would not like to positively assert that this was a case of puerperal fever caused by distemper organisms, he thinks the clinical history rather supports that view.—*Lancet.*

Submucous Uterine Fibroid: Operation under Grave Conditions: Ultimate Recovery.

I. CH. PLATON has operated upon a patient who had suffered for five years from nearly continuous hæmorrhages and all the classic symptoms of a uterine fibroid. She was profoundly anæmic, and nearly cachectic. Two tumours were felt in the abdomen one was median, and as large as a man's head, the other was at the left side, and was much smaller. The patient was not operated upon at once, in the hope that her general state of health would improve; but the hæmorrhage continued, and the temperature began to rise, so the abdomen was opened, and the uterus, containing a large submucous fibroid of the fundus, was removed (total abdominal hysterectomy). The smaller tumour felt at the side turned out to be a small ovarian cyst. The patient nearly died on the table, and required hypodermic injections of cognac and of Hayem's artificial serum. These injections had to be repeated several times during the first few days after the operation, and recovery was further delayed by the occurrence of three stitch abscesses in the abdominal wound. —*Brit. Med. Jour.*

PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

Anatomy of the Anus.

BERT. B. STROUD notes that (1) the anus is similarly formed among all the mammals but is most highly developed in man.

(2). The pecten contains the peripheral ends of nerves concerned with a special "rectal sense" and from its dentations (in some people) spring papillæ composed of stratified epithelium, nerve elements and a small amount of connective tissue. Those people who possess such papillæ seem physiologically superior to those who do not.

(3). Just cephalo-peripherad of the pecten of some persons are developed more or less extensive anal pockets, which, though not pathologic, may be torn by hard fæces causing lacerations of the pecten which may ulcerate by continued irritation or a fistula or perforation of its floor may result on hard fæces lodging in these pockets.

(4). Rectal reflexes may be due to pressure either on the nerve elements by congested blood vessels or on irritated papillæ, by spasm of the sphincter, and though they are often injected with serum there is no evidence of sclerosis in irritated papillæ.

(5). The nerve supply of the rectum and anus is derived from both the central and the sympathetic nervous systems, and consists of (a) small nerve cells with anastomosing dentrites forming the epidermal plexus. (b) Large ganglion cells in the dermis and amyelinic nerve fibres.

(6). There are but few sensory nerve elements in the rectal mucosa whose caudal border is at the linea dentata where the character of the epithelium changes markedly and the mucosa is thrown into folds like a ruffle.

(7). The incontinence of fæces that follows operations for hæmorrhoid is due to the excision of the pecten which forms the central part of the floor of the rectal ampulla, when the sphincters are closed.—*Canad. Pract.*

Relationship between the Testicles and Prostate.

R. FLODERUS draws the following conclusions *A.* Effect of bilateral removal of the testicles. 1. If undertaken before puberty, aplasia results. 2. In adults a prostate which before operation was not pathological shrinks after the operation. 3. In cases of beginning or developed prostatic hypertrophy the influence of the operation is less uniform and at times not demonstrable. The diminution in size is greatest in the upper part of the organ. 4. Tuberculous processes, as well as chronic prostatitis, may be brought to a standstill or even cured by the operation. *B.* Effect of unilateral removal of the testicle. 1. If the prostate be normal, the operation as a rule causes an atrophy of the corresponding lobe, which is noticed principally at the upper half. 2. The operation will not prevent the existence of prostatic hypertrophy. 3. Existing hypertrophy is influenced only now and then, and in those cases in the corresponding lobe 4. Tuberculous processes in the prostate lobe of the same side may be brought to a standstill and at times cured. 5. The opposite prostatic lobe is not influenced, which fact leads us to suppose that the nerves (vasomotor, secretory, trophic) play a part here. 6. As a rule, the operation causes atrophy of the corresponding seminal vesicle, as well as compensatory hypertrophy of the opposite testicle and seminal vesicle.—*N. Y. Med. Rec.*

Examination of One Hundred Cases of Typhoid Fever by Widal's Serum Test.

DRS. J. COLVILLE and W. D. DENHAM divide the cases into two divisions, viz. : Those clinically typhoid and clinically non-typhoid, sub-dividing the first into four classes : (*a*) Reaction immediate and complete. (*b*) Reaction incomplete, but complete, or nearly so, when retested at a later date. (*c*) Reaction incomplete, but not retested. (*d*) No reaction. The total number of cases in this division was 105. Of these, 84 gave a complete reaction, 12 an incomplete reaction, more complete subsequently ; 7 an incomplete reaction, not retested ; while in 2 cases there was no reaction. The second division comprises : (1) Cases clinically doubtful at the time, which subsequently ran a non-typhoid course, total, 13, all giving no reaction. (2) Cases certainly not typhoid ; total, 7. (3) Cases who had suffered from typhoid at a previous period, total 8. Thus, of 105 cases of undoubted typhoid fever, only 2 failed to give reaction ; while of 20 non-typhoid cases only 1—a case of typhus fever—reacted. The last case can only be explained by supposing that the patient had had typhoid fever at some previous date. Another case of typhus fever tested on the same date gave absolutely no reaction, which accords with the views of others. A case of malaria was tried with the serum, both during and after a paroxysm, but no reaction followed.—*Post Graduate*

Biologic Differences between the Bacillus of Eberth and the Bacillus Coli.

AT the meeting of the Hospital Medical Society held on 19th March, M. L. TOINOT and M. GEORGES BROUARDEL said that there were very marked differential characteristics shown by cultures of these two micro-organisms in peptonized bouillon containing some arsenous acid. The bacillus of EBERTH exhibits no growth in bouillons containing more than a centigram of arsenous acid to the liter. It is equally impossible to train this organism, even if the observer begins with bouillons very much more feebly arsenical and goes on by slow degrees to those more strongly arsenical, to grow in a bouillon which is of a higher arsenical strength than one centigram in the liter. The bacillus coli, on the other hand, from the very first, from whatever source it may be derived, grows well in bouillon containing 1.5 gram of arsenous acid per liter. Certain samples will even grow from the very first in bouillons containing 1.75 or even 2 grams of arsenous acid to the liter, and this appears to show that this bacillus exists in various kinds, as opposed to the one kind of the bacillus of EBERTH. The bacillus coli is, on the other hand, remarkable for the ease with which it can be trained to grow in an arsenous environment. It is possible by beginning with a bouillon of the arsenical strength of 1 5 grams to the liter to gradually get it to grow in a medium containing arsenic to the strength of 8 grams to the liter. Between an organism of this kind, which is so resistant to an enormous dose of arsenic, and the bacillus of EBERTH, which is incapable of developing in the presence of the very small proportion of 1 centigram of arsenic to the liter, there is undoubtedly a remarkable biologic difference which may be added to those already noticed, such as the indol-reaction and the lactose fermentation test, and which stands on the same footing. The same biologic reaction in the presence of arsenous acid offers a method of differentiation from the group of the para-colon-bacillus.—*Phil. Med. Jour.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Why Inquests are Held.

ACCORDING to the *Manchester Evening Chronicle* Mr. SIDNEY SMELT has been explaining to a coroner's jury at Manchester for what purpose inquests are held. He said that they were not scientific inquiries into the cause of death, though many people thought that such was the case, and unfortunately the idea had been fostered by medical men. Whether they wanted to obtain scientific knowledge from such inquiries or whether they desired to get fees for giving evidence was best known to themselves. In no sense was a coroner's inquiry a medical inquiry and medical men had nothing to do with it except to give evidence when called upon. Inquests were held to find out whether anybody was to blame for death, and he was sure the public, for whose protection they had been established, would strongly oppose the holding of them for scientific purposes. If they were to have scientific inquiries they must have them in every case of death. It was not right that medical men should force themselves upon a jury merely because death had been sudden. Such was not the intention of the Legislature. Nobody ever imagined that a coroner's inquest was a scientific inquiry ; but as Mr. SMELT allows that their object is to find out whether anybody is to blame for the death, how is this desirable result to be arrived at without medical evidence as to the cause of death ? Supposing the body of a person is found in a stream or a pond, who is to say whether he or she was alive or dead when he or she got into the water except a medical man ? Of course if a man is cut to pieces by a train or a tramcar there is no need of medical evidence, but there is great need in cases of bodies found dead or in the case of persons who have died without proper qualified medical attendance We should be glad to know too, what Mr. SMELT means by implying that medical men force themselves upon a jury ? It is the duty of the coroner to summon medical evidence if he thinks proper.—*Lancet.*

Dangers from Intermarriages.

DR DENEFFE says that the bad results of consanguineous marriages have been observed since ancient times. In breeding animals the principles of consanguinity have enabled us to emphasize characteristics that would otherwise be lost ; it has permitted the creation of certain races, but this consanguinity has no value unless it is governed by those competent to choose their subjects. Without this selection consanguinity in animals gives as bad results as in man. With animals as with men it emphasizes the defects and vices. The selection so easy with animals is impossible with man. In our civilization, in these times of alcoholism and neuroses, there are not many families without defects, and heredity also complicates consanguinity. Experience shows us that consanguineous subjects, who seem exempt from all defects, reproduce in their offspring the defects of distant ancestors. It is difficult to get a thorough knowledge of the individuals themselves, and impossible to know much of their ancestors. There are villages in which consanguineous marriages are frequent, and where the race is nevertheless fine and vigorous. Dr. DENEFFE gives many absolutely contradictory facts. He refers to the Protestant communities living during the sixteenth century in the midst of Catholics, and forced by this circumstance to tolerate consanguineous marriages. These marriages gave worse results than crossed marriages. The author considers that consanguineous marriages are always dangerous.—*Guillard's Med. Jour.*

[illegible] of the Mouth.

A HEALTHY mouth is one of the essential conditions of a healthy body. The best way to secure healthiness of the mouth is frequent thorough cleansing. The following description of what a toothbrush should be is taken from an American dental journal:—"The proper toothbrush is the one which will, by its shape, reach as nearly as possible all parts of the mouth and all parts of the teeth in the mouth. The handle part should be a little curved in a shape, the bristles being on the inner side of the curve and set in tufts, not close together, and because of this fact they should be very stiff. That a closely set brush becomes very filthy anyone may convince himself by taking one of these brushes after it has done duty for a few months by parting the bristles and looking closely into it. With an open brush this condition does not exist, because the construction of it allows thorough washing and a thorough circulation of air, and consequently a thorough drying of the brush and return of a rigidity of the individual bristle and series of bristles. The curved shape of the handle is for the purpose of bringing the brush end more easily under control of the hand while using. At the extreme end of the brush a larger and longer tuft of bristles should be placed, enabling the user to reach more effectually the palatal and lingual portions and surfaces of the teeth, as well as the posterior aspect of the molars. The brush should always be thoroughly washed in running water if possible, the water forced out by drawing the thumb over the bristles and after that dried upon a towel. Three of these brushes should be in use at a time, and consecutive, thus allowing in the interim sufficient time to dry the bristles, making them more effective in their turn for use. The brush to be effective should be used in every direction, and particularly should the movement be in a vertical manner, brushing down upon the upper teeth and up upon the lower teeth, allowing the stiff and scattering bristles to go between the teeth to remove every article of food finding lodgment there. One should not be afraid to brush the gums at the same time, even if they should bleed; the more blood, the more is brushing to be recommended, thus relieving congestion by depletion.

Death from Santonin.

LAST week (16th April 1898) Mr. WEBDON, coroner, held an inquest on the body of Mrs. HUMPHRIES, wife of a groom, who had died the previous day from the effects of an overdose of santonin, accidentally taken. It appeared from the evidence of her husband that deceased had an idea that she had "something alive inside her" for the past seven or eight months. She took different patent medicines, but to no purpose. She was an out-patient at the Royal Berkshire Hospital for six weeks, but did not get better. About six months ago a neighbour told her to get some santonin, which she did and took some doses, after which she "acted like a lunatic," and continued to have fits until half an hour before she died. About a quarter of an hour before she died she told him she had taken all the santonin, of which he thought there was quite 2 drs. Dr. TAYLOR, who to finding deceased unconscious. On her regaining consciousness he questioned her and found she had taken the powder, which was a powerful poison, and was often used in very small quantities as a worm-powder. She had the appearance of having taken poison. On examining deceased just before her death he found she was suffering from an internal injury. The jury returned a verdict of death from poison accidentally taken.—*C. & D.*

THERAPEUTICS AND [illegible]

Veratrum Viride Lotion for [illegible]

Fever Blisters, Boils, Felons, etc.

DR WILSON A. SMITH, Chicago, calls attention to the efficacy of veratrum viride when applied locally in erysipelas. Dr. F. J. SOUTIN twelve years ago locally applied veratrum viride with two parts of water to a swollen (erysipelatous) face. The relief from pain was marked, and the improvement continuous. Since then he has seen nothing else give the relief that can be obtained from a non-alcoholic lotion of veratrum viride. In case of *fever blister* (or "cold sores") of the lips which ordinarily last a week or more, a few applications of veratrum viride lotion cures usually in twenty-four hours. He now uses a fluid extract, as it requires no dilution to avoid the irritating effects of alcohol, as does the tincture. It must be used early The same benefit results from its application to inflamed pimples and minute abscesses about the face. Boils treated early can often be aborted by veratrum locally, as above He has seen several instances of "felons" cured in a day or so by the same application. Keep the inflamed finger constantly wet with the fluid extract. It relieves the local fever and has a soothing and beneficial effect in nearly all conditions where there is a local external inflammation.—*Very. Med. Semi. Monthly.*

The Sun Cure.

IT is claimed for the sun cure, which, like the rest cure to which it closely allied in many way, may very easily be tried at home, that the results produced by it are more lasting than from other tonic. A sunny window, an easy chair or sofa, and just a little resolution or determination are all that are required for this treatment which is to strengthen and beautify men and women. The improvement in looks and spirits that usually follows a sea-side or camping out season and the peculiar yet attractive softness of a skin that has just recovered from a severe case of sunburn and tan are advanced in support of the health and beauty-giving properties claimed for the sun cure.—*Med. News.*

Iodine Injections for Malarial Hypertrophied Spleen.

PARONA considers hypodermic injections of the following solution the simplest and most effective treatment for hypertrophied spleen of malarial origin at our disposal to date. Metallic iodin, 25 centigrams; potassium iodid and guaiac aa 25 grams; pure sterilised glycerine 25 grams. Inject one gram in the flank or back, the patient remaining in bed during treatment, suspending it as the organism becomes saturated with iodin. Four cases of enormous tumefaction of the spleen are reported practically cured, although one case required splenectomy later, on account of the mobility of the organ.—*Sem. Med.*

Buckskin Dressing for Bosoms.

DAVENAC has found that buckskin applied over the salve fits smoothly to the surface, yielding to every movement, never rots nor produces erythema, does not absorb the salve and does not stick to the tissues, while it is easily washed and keeps the dressing moist inside and dry without, and the scabs leave a healthy surface when they drop off.—*Sem. Med.*

Carbolised Adhesive Plaster.

L. ADRIAN gives the following formula:—

℞ Simple adhesive plaster,	... 19 parts.
Carbolic acid	... 1 part.

Mix.

[illegible] of Practical Pharmacy in General Practice.

ARTHAUD recommends the following :—Potassio-ferric tartrate, 1 gram; tincture of nux vomica, XV to XX drops; decoction of ipecacuanha and decoction of cinchona, aa 100 grams; to be taken by tablespoonfuls during the twenty-four hours.—*Prog. Méd.*

Salicylated Adhesive Plaster.

℞	Simple adhesive plaster	...	95 parts.
	Salicylic acid ...	...	2 ,,
	Lard	...	3 ,,

Melt the plaster and add the acid and lard mixed.

Iodoformized Adhesive Plasters.

1 (ten-per-cent.).

℞	Lead plaster ...	...	65 parts.
	Suet	...	10 ,,
	Dammar balsam, Pine tar, } each	...	7 ,,
	Venice turpentine ...	...	1 part.
	Iodoform, in very fine powder	...	10 parts.

Melt together all the ingredients except the iodoform, allow the mixture to cool, and when it is almost solid add the iodoform.—*Journal de médecine de Paris.*

Aromatic Violet Vinegar.

Rectified spirit ...	..	6 oz.
Oil of bergamot ...	...	25 min.
Oil of lemon ...	...	25 min.
Oil of orange ...	..	10 min.
Oil of rosemary ...	...	20 min.
Oil of lavender ...	...	3 min.
Oil of melissa ...	...	5 min.
Aqueous decoction of 1 dr. each of benzoin, tolu, styrax, and cloves		12 oz
Vinegar	...	4 oz.
Acetic acid... ...	...	1 dr.

Macerate one week and filter.—*Merck's Report*

Cream-Embrocation.

Oil of sassafras ...	...	1 oz
Lard oil ...	...	5 oz.
Cotton-seed oil ...	...	1 oz.
Spirit of turpentine ...	...	3 oz.
Solution of ammonia ...	...	5 oz.
Oleic acid ...	...	½ oz.

Mix the acid and the lard and cotton-seed oil. Then add the turpentine and ammonia and shake, lastly adding the oil of sassafras.

Aromatized Cod Liver Oil.

DUQUERREL's formula is given as follows in the *Revue des maladies de l'enfance* —

℞	Amber-colored cod-liver oil ...	100 parts.
	Oil of eucalyptus ...	1 part.

M. This mixture is said to taste only of eucalyptus and to be free from any disagreeable odor.

Hair Tonic.

DIETRICH recommends the following wash. Quinin hydrochlorate, 2 grams; tannin, 10 grams; alcohol (80 per cent.) 500 grams; Cologne water, 20 grams; vanillin, 10 centigrams; pulv. sandal. wood, 5 centigrams. For external use. Set aside five days and filter. Apply and rub well into the scalp every other day.—*Prog. Méd.*

Correspondence.

A MEDICAL REGISTRATION ACT FOR INDIA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The following Editorial from the *Bengal Times*, the great advocate of reform, justice and equity, will be read with keen interest by every reader of the *Record* :—

"It must be extremely gratifying to our Indian Medical Association—Calcutta—says an esteemed contemporary—*Indian Medical Record*—to learn that its laudable efforts to secure a Medical Registration Act for India, though yet not successful, are tending towards success, as they have already engaged consideration of the General Medical Council of Great Britain, and they have attracted the attention of Parliament. We quote from the *B. M. J.* of 28th May :—'Registration of medical practitioners in India was the subject of a question on Tuesday, in which it was pointed out that, at present, uneducated and unqualified persons have freedom to practise in India to any extent. The Secretary of State admitted that this was so, but declined to bring in a Registration Bill, on the ground that it would be impossible to prevent people having resort to native practitioners. In giving this answer, Lord GEORGE HAMILTON was evidently laboring under a misconception as to the nature of legislation asked for. A Registration Act on English lines would not prevent people resorting to native doctors, it would only enable them to differentiate between qualified and unqualified persons, and so to protect themselves against ignorant pretenders Without a Registration Act, people have no means of distinguishing between a man who really has qualifications, and a man who advertises falsely that he has them ; and it is to give natives this power of protecting themselves, and not for a purpose of preventing them resorting to native practitioners, that legislation is required." We go much further than our medical contemporary, by contending that a false representation of medical qualification, whether by newspaper advertisement, placard, signboard, label, or otherwise, is *illegal*, being a fraud practised on public credulity, which victimises many and may even endanger life and cause its unnecessary sacrifice. In an emergency, a man rushes off to summon medical aid and takes that which is nearest to his hand He enlists Dr. A to—he being most conveniently near—and discovers when matters are too critical for recall—perhaps, beyond human aid—that this self-dubbed Dr. A has no right whatever to his assumed professional title. He is safe however, from prosecution. Surely, this cannot be intended since life and health are worth more than money, and if we have a law—Legal Practitioners Act—under which a man who, by falsely representing himself as a lawyer and obtaining *money* thereby, becomes liable to criminal prosecution, it seems painfully significant that one who, through ignorance deliberately sacrifices life should be immune from liability. This is an incongruity—if it exist—in our law codes, that calls for urgent remedy, and its importance demands searching enquiry into prosperous imposture. A man who through credulity in assumed professional skill, loses merely his money, can always try to find an opportunity of replacing it, and may succeed, but he who loses a near

relative, or dear friend, through lack of technical knowledge, is not so happily situated, and it seems to us remarkable he should be without redress because of an abuse of confidence practised on his trustfulness. It is not asked to fetter inclination—let men choose their own practitioner—but it is imperative that public safety may be vouchsafed. It seems to us that when a choice is allowed legislation of protecting one's money or his life, his purse is regarded as of more value than his existence, in short, a man may kill, on false pretences, but he must not rob."

Yours &c., MEDICAL MISSIONARY.

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NEWSPAPER VIEWS ON PLAGUE AND PLAGUE POLICY IN CALCUTTA.

TO THE EDITOR, "INDIAN MEDICAL RECORD"

SIR,—I quote from the *Indo-European Correspondence*, an English Catholic paper —

"There is now a pretty general consensus of opinion in Calcutta that we have no epidemic plague amongst us, yet the plague party are constantly worrying our nerves with cases of *suspected* plague which are trotted off to the Manicktollah *Infernum* and trotted out in the official papers. The best native medical authorities who have spent a lifetime in treating such fever cases, declare that this bogey of a plague is a sham, which is bound to last only as long as the special funds affected to it will last.

"If it be only a question of spending that money honestly, why not spare our nerves, and rid our streets sooner of the dead rats and cats, which are sometimes left for a couple of days to rot in the open! We daresay such work would fall much better within the province of a Vigilance Committee, than that of plaguing us with a plague which no one is able to spot, and that of scaring away those most useful scavengers, the street sweepers and *dôms*, who are the best preservers of our health and lives

"It is a fact which strikes us very forcibly that, in Bombay, exactly one day after the telegram by which the plague party were said to throw up the sponge and make the town over to the Municipal Commissioners, we received another telegram that the plague is stamped out and the seizures have suddenly fallen to 2!

"But then, it may be asked, has the plague made no victims in Calcutta?

"It has. For several cases of glandular fever, a thing often treated here, preferred dying secretly in their rat-holes rather than being treated as *suspected* plague patients.

"Again, several poor devils, when smitten with any fever that demanded prompt remedy, fled toward their own country, and died of exposure on the road

"Again several cases, when jogged and jolted in the ambulance-car, died on the way from fright, or shortly after reaching the segregation-shed from exhaustion.

"For all these deaths, not the plague, but the plague party shall answer to God; for the misery of the poor cries up to heaven for vengeance"

We quote from the *Bengalee*, the leading Anglo-native paper of Bengal :—

"As for the plague the students and their parents need not be alarmed We doubt if there is any real plague in Calcutta If it is plague it is of a type very different from that of Bombay It is devoid of that which marks it out as a really dangerous disease, *viz*, its infectious character. Assuming as correct the official view of the matter, there have been cases in this and other wards, but these have not been followed by similar cases in or near the houses where they have occurred The cases are not infectious—they are sporadic—it is indeed doubtful whether they are true cases of plague. There is no cause for alarm. The students should come back to their work and not waste their time at home in idleness. That is our advice to them and their guardians."

We quote from the *Indian Mirror*, another leading Anglo-native paper :—

"The Bengal Chamber of Commerce took a fortnight's time, we believe, to consider what action its members should take in reference to the plague, after watching the progress of the disease in the *interim*. The time has now elapsed and matters, we fear, have become worse since then, for the number of plague seizures and deaths has evidently somewhat increased. An undoubted belief is entertained in certain quarters, that the plague is an established fact now in Calcutta. There are others who are utterly sceptical on the point. This division of opinion prevails among the doctors as well. There are some doctors who still seem to think that they have been accustomed to treat such cases as are now creating so much excitement and alarm, for many years past in Calcutta. Other doctors contend that such or similar cases may be endemic in Bengal, but that the fever which has lately appeared in Calcutta, and is causing such rapid mortality among the patients suffering from it has got about it some peculiar features, which were not observed in fever cases previously. These doctors are decidedly of opinion, that some few true cases of undoubted plague have really occurred in Calcutta, though their number falls far short of the number stated both in the columns of seizures and deaths in the daily returns of the Corporation. And this is so, because the Corporation includes even suspected cases in its returns. The question, then, to be considered is, if the plague has really appeared in Calcutta, to what is it due?

"This question is one of so much importance that the Bengal Chamber of Commerce would do well to look carefully into it. We do not care so much for the plague itself, as to be quite sure if it has really broken out in this city. What the people chiefly complain about at present is in reference to the treatment of suspected cases. There are cases, the history of which is known thoroughly to the friends and relatives of the patients, and the nature of which they cannot have the slightest doubt about. And yet, to their utter surprise and bewilderment, some of these cases are taken as suspected cases or even as those of real plague. The best thing to do, under the circumstances, is to remove all causes of complaint on this score, and to have all such cases examined and pronounced upon, not by a single Bombay doctor, but by a duly constituted and competent Medical Board. The Bombay doctor's verdict ought not to be final, for it does not quite satisfy the public, especially, when his examination is unaccompanied by any bacteriological investigation. It matters little whether the doubt is well or ill-founded. But, we think, it is due to the people, that a competent and independent Medical Board should be at once appointed by the Government to supervise the work of the Health Officer and the plague doctors, and to constitute a body, which, by its weighty pronouncement, will satisfy the public as to the true merits of each reported case. And this has become all the more necessary in view of the malicious and mendacious information, anonymously supplied to the Health Office about bogus cases. We trust the Bengal Chamber of Commerce will take up the matter with its wonted energy."

Yours &c., FAIR PLAY.

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ON THE C. D. QUESTION.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—I have no intention of prolonging the discussion, and only write because one or two questions have been put to me. Some of them do not require an answer. "Medical Man" does not surely want an answer to such a one as "Does he maintain that the preferable course is to leave them to rot"? And the reader can judge of the fairness or unfairness of his criticism of the Lady Doctor's statement that "it lies to a large extent within the power of the individual to avoid infection." I threw no mud. I took the facts supplied by their party and asked them to think over the results of their handiwork. I think he should keep to the 3,000: he used it in good faith. The figures I turned up and found to be 6,190 as supplied by the Government, and the use he made of them is the use they try to make of them.

He writes: "Can Dr. HUNTLY give me a single case where his methods have been tried and proved successful"? It is this question and one other statement which makes me take up the pen.

I am sorry to say that, the authorities in India have given no method but their own a chance—*for over thirty years*, remember—and the result is failure and fraud. These two words sum up their method. They had during many of these years a free hand, and faults in their construction, &c., were not largely due to "Dr. HUNTLY's friends," and non-success is their own written verdict as the "Burma" statistics verify afresh. One more recent proof of their non-success, *Lancet*, 26th March, Army Medical Report; total ratio from venereal disease in 1897 is 173·7 per 1,000 against 134·5 in 1896. There the C. D Acts. have never been repealed.

In South Africa, General GOODENOUGH tried anti-C. D. methods, and there I would direct "Medical Man's" investigation. I have not the figures beside me, but it is a victory of anti against pro C. D., sho wing what can be done by a good officer.

"A Medical Man" knows that outsiders cannot attempt any methods; they can only be carried out from within by the co-operation of the Army Commanders.

It is silly, childishly silly, for "A Medical Man" to say we only coolly assume that God is on our side. He knows what is meant in this great moral question with world-wide racial issues when we say that God's position is clear. It is painful to read such trifling. It is because in the abstract, and as we hold, in all that is practical issuing from the abstract, these principles have God on their side that the higher nature of "A Medical Man" says he has admiration for these views.

He touches new ground when he says they are "*impracticable*." That is to be tested; we see clearly many difficulties, and perhaps one of the main difficulties is the difficulty of co-operation of officers. "The officers are even worse than the men" This reads like a reckless statement. How far from or how near the truth I know not, yet it is the opinion of a Colonel of a regiment in India, uttered across the dinner table in a conversation over the Regulations. All the greater need of the officers themselves being roused on this question. *Apropos* of the attitude of officers on cognate questions, here is another incident: a great noise is made over the encouragement to temperance in the army, and all honor to those who by example as well as precept help; but the following can happen even in these temperance days, and in this year of grace. A company were on the march and a daily allowance of beer was granted. The abstainers asked that an equivalent for tea should be granted to abstainers; this modest request was refused! However, the soldiers themselves stuck to their guns and their principles and only an odd man or two relapsed. All praise to T. A., none to the officers. But while the officers *may* be a difficulty, the real contest is not on a minor issue but with State legislation which raises an immoral traffic into the position of a lawful industry superintended by Government officials.

Yours &c., W. HUNTLY, M.A., M.D., B.Sc.

NUSSERABAD, *20th June 1898*.

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PLAGUE HUNTING IN CALCUTTA AND ITS DIRE RESULTS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Dr. BLANEY, of Bombay, writes as follows to the *Times of India*:—"Our second plague visitation has nearly declined to the vanishing point, and I still find 'search parties' at work hunting for plague cases in people's houses, and worrying and terrifying the weak and the timid, the very persons who are most in need of being permitted to live in peace. In your plague column to-day I find a notice of one of these plague hunts which closely resembles a rat hunt, and after a two hours' run the searchers found 'no case of plague in the district.' What then is the justification for this barbaric interference with the people in their homes? Let me ask these plague hunters, or rat hunters, what earthly good can possibly result from their sneaking into houses and disturbing and distressing inoffensive people? Do they suppose they are stamping out a plague or preventing its spread to Calcutta? Does any one of them know anything about plague infection and how and under what circumstances this infection is conveyed to man? Can any one of these plague hunters produce one atom of evidence that their hunting has diminished the number of plague cases by one single unit? Do they not know, or have they not heard that the whole sanitary world have set their faces as a flint against compulsory segregation? Nay, they know nothing about plague and its way of infection. All they do know is the fun derived from hunting up real or imaginary cases, and of disturbing whole households in whole districts. It may be fun to them, the hunters, but it is nearly death to their quarry, and if they are natives they know the injury they are doing. I protest in the name of humanity against a continuance of these plague hunts, and would recommend the hunters to study the science and details of the business to which they have voluntarily apprenticed themselves. Novices all, incompetents all, in the very great subject of plague prevention and plague abatement, will none of the friends of these hunters be kind enough to try and persuade them that they have mistaken their vocation. Whatever else they may be fit for, nothing is more certain than that they are quite unfit for abolishing or abating plagues. I did hope that these misguided hunters would in time see their own failures and recognise their own cruelties, but as they persist in carrying on their oppression to the bitter end, with the chances of that stupid oppression being continued long after the city is free of plague, I feel justified in making this loud and very strong protest against our organised city tormentors.

"If these hunters want laurel decorations and evening parties, let them come to me to get up the *tamasha*. This suffering city has found no saviours in the time of its dire distress. What it has found has been ignorant torment ors under the guise of philanthropic *friends*, so-called friends, subservient friends, ignorant friends amongst their own people."

Yours &c., EASTERN GUARDIAN.

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OFFICIAL PLAGUE—A PROTEST.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The annexed is the official text of Dr. WALLACE'S protest regarding the present plague question in Calcutta at the meeting of the Municipal Council in the Town Hall on the 4th May 1898. It is extracted from the Municipal Proceedings Report, page 22, and is as follows:—

"Dr. WALLACE said he had listened with considerable attention to what had fallen from Dr. SANDERS, and what he had said was in absolute conformity with an official letter sent to the Bengal Government by the Council of the Indian Medical Association. It was there pointed out that the subject was surrounded by considerable difficulties with regard to the social relations of the Hindu and Mahomedan communities. And having regard to what had first been said he could assure the members of those communities that the European community was in entire sympathy with them, and that they might rely on the support of that community. With regard to the disease itself Dr. WALLACE referred to the rules laid down by the Government. If, he said, it was a filth disease Calcutta had had it with them for a century. Filth was always with them in abundance; and from the very fact of the conservancy of Calcutta being so generally condemned, if it was a filth disease, the plague should have been

in Calcutta long ago. But when the bacillus found in diseased individuals here was pronounced on a former occasion not to be the plague disease, the idea that the plague was a filth disease died a natural death. On the present occasion, while there was a difference of opinion whether there was plague or not—and some were prepared to say they were not cases of plague—the community was placed at the mercy of an eminent man who was now at Bombay. Strange it was that Calcutta was absolutely without a bacteriologist, and therefore there was neither confirmation nor denial of the opinion of M. HAFFKINE, who was not a medical man but a chemist. With regard to segregation there was nothing to show that it had the smallest effect, and with regard to inoculation it was an experiment, and there was not a consensus of opinion that it was a prophylactic and a preventive from disease. Dr. WALLACE denied that the time had yet come when it could be pronounced a success. The faculty had not arrived at a definite conclusion with regard to inoculation. The time had not come when it should be forced upon the people as an absolutely sure preventive of plague in the sense that vaccination was of small-pox. It was premature and dangerous that inoculation should be fathered by the Government until experiments had been made all the world over. It could not be pronounced a success because in Bombay and a few local centres it had been tried with some effect, and Dr. WALLACE thought the Corporation ought to protest against inoculation being considered safe in any sense of the word."

Yours &c., MUNICIPAL COMMISSIONER.

CALCUTTA, *22nd June 1898.*

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THE PLAGUE AND HAFFKINISM.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Not being a believer in the new-fangled but in reality more than antiquated theory of "taking a hair of the dog that bit you" as a cure, I am quite at one with you in contesting the value of M. HAFFKINE'S plague treatment, for which there is not much corroborative evidence. The horse is immune (*i.e.*, not predisposed) to plague, and there is no true precedent for saying that because the horse did not die when inoculated with plague virus from man, a man will not get plague if inoculated with serum from a so protected (? ? ?) horse. If a single instance were known where, as in small-pox vaccination, inoculation with plague serum induced a mild attack of that disease, we might have a little faith in the prophylaxis of Haffkinism; but such evidence is not adducible.

Study the records of PASTEUR'S antirabic inoculations Many persons died of rabic convulsions who might still have been alive and not at all developed hydrophobia had they even had no sort of treatment. Five Europeans residing in one house were so slightly bitten by a rabid pup that they took no notice of it Two of these died of hydrophobia, while the other three did not ail at all. On another occasion, a young lady was bitten in my house by one of my dogs that seemed peculiar. Her friends insisted on my destroying the animal on the plea that it subsequently becoming rabid would make the girl mad; but I sent the dog to a friend who afterwards shot it because it became rabid. The young lady suffered no ill consequences from the bite. Again in my many years of service I have repeatedly seen the soldiery bitten and as often treated them for dog-bite without any of them getting hydrophobia from it. Once I felt very nervous and even could not bear to hear the splashing of water after a man in the last stages of hydrophobia, spat in my eye, but I overcome my horror and fears by taking very long and fatiguing walks

Again, it is quite a common thing for cavalry horses to be bitten by dogs, but I have never heard of antirabic inoculations being employed to protect the thousands of Government horses from hydrophobia to which they are not immune.

Yours &c., SURGEON-LIEUTENANT.

(As a matter of fact, Haffkine's inoculation does produce mild symptoms of plague or blood poisoning.—ED., *I.M.R.*)

:o:

TREATMENT OF CHOLERA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The following is a brief account of the measures I successfully adopted in the Hansot cholera outbreak, which lasted for a full month and commenced with a male *koli* who had been to Broach in a law suit, but immediately on his return to Hansot manifested cholera to which he succumbed within 12 hours. After this there were 22 cases of which 6 terminated fatally.

As soon as a patient came in with cholera I gave him 3iv (repeated every 15 minutes) of the following mixture:—R Carbolic Acid mxvi, Spts. Camphoræ and mist. diarrhœa *aa* 3ix, and Aquæ Chloroformi 3vj. The first dose was invariably rejected, but the second was retained and vomiting and purging ceased after the fourth or sixth dose.

The limbs were rubbed with compound camphor liniment to relieve the violent cramps, and to subdue the excessive thirst a pinch of a powder made by rubbing Sodii Bicarb grs xl, Sodii Tart. 3j, Pot. Tart. Acidi 3ss, with Acid Tartaric grs. xxxv, was thrown into a teaspoon or two of water and given to the patient while effervescing. In one case, that of a boy of 9 years who was almost collapsed, I had to administer two hypodermic injections of 1 grain of chloral hydrate dissolved in 10 minims of water. The various excreta were mixed with dammar and straw and burned instead of being buried.

Yours &c, SAMALDAS NAHANJI, C.M.S.

In medical charge, Hansot Dispensary.

(What is the formula of your Mist Diarrhœa?—ED., *I.M.R.*)

:o:

PATENT MEDICINES AND THE "BANGAVASI."

TO THE EDITOR, "INDIAN MEDICAL RECORD,"

SIR,—It is to the lay press—the vernacular chiefly—that the masses look for information, and if the newspapers lend themselves to puffing up patent medicines called into being and offered for sale by persons who are utterly ignorant of medicine and its allied sciences, the uneducated and those of the educated also who have never learned the truth of the proverb "the loudest brags are the greatest liars and biggest cowards," must continue to be duped by the flaring advertisements of the marvellous properties of this patent medicine or that whose real virtue lies in undermining the health of the recipient and fleecing his pockets to fill the insatiate coffers of the unscrupulous advertiser.

It is deplored throughout the length and breadth of India that, so far, there is neither prophylaxis nor certain cure for "plague," and yet if you take up the *Bangavasi*, which has the largest circulation of all the Bengali vernacular papers, and you will be surprised to note that one Mr. B. BASU, who is not a doctor, not a *Kaviraj*, nor even a *Hakeem*, has actually discovered two great specifics, the

one for the cure (*sic*) and the other for prevention (*sic*) of plague. If this were only true, what a boon for the thousands of India; but who is this Mr. B. BASU? A specialist? Scarcely! A greater than HAFFKINE and wiser than the whole of the medical fraternity? No! But the brother of the proprietor of the *Bangavasi*, who ought not to lend his paper to deluding his credulous subscribers.

Yours &c., HARA KALI SEN, C.M.S.

RAIGANJ, *4th June 1898.*

:o:

HIGHLY PLACED ANGLO-INDIANS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—I beg to send you a few more names for the list of highly placed Anglo-Indians which you are publishing in your valuable paper:—

1. Captain W. Newell, Indian Staff Corps.
2. A. S. Jervis, Principal, Mission High School.
3. C. Tudbull, Bombay Civil Service.
4. Sidney Percy Leggett, Barrister-at-Law, Karachi.
5. T. Fernandes, Superintendent of Surveys, Kathiawar.
6. Walker Harold Brock, Superintending Mechanical Engineer, Umaria Colliery.
7. W. P. Arthur, Superintendent, Aden Police.
8. W. J. Hemson, Registrar, Bombay Secretariat.
9. J. Cross, Registrar, Bombay Secretariat.
10. Anthony Brown, Superintendent, Revenue Commissioner's Office, Poona.
11. Samuel Algernon Strip, Head Master, Girasia School, Wadhwan, Kathiawar.
12. George Scott, Deputy Collector and Magistrate, Satara.
13. James Love Taylor, Superintendent, Deccan Gang, Dharwar.
14. Ebenezer Nash (Indian Marine), Barrister-at-Law, City Magistrate, Sukkur, Sind.
15. E. M. Pratt, Indian Civil Service.
16. F. G. Pratt, Indian Civil Service.
17. J. Scroggie, Superintendent, Persian Gulf Telegraphs.
18. W. R. Scroggie, L.R.C.P. Lond., M.R.C.S. Eng., Surgeon-Captain, Civil Surgeon, Sholapur.

Mr. Harry Brewin, Superintendent of the Bombay Police, who has just been appointed to the post of Personal Assistant to the Inspector-General of Police for special service in the Poona murders case.

Yours &c., W. H. T.

KARACHI, *20th June 1898.*

:o:

HIGHLY PLACED ANGLO-INDIAN OFFICERS UNDER THE MYSORE GOVERNMENT.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The following are some names of Anglo-Indian officers employed under the Mysore Government:—

Mr. C. Cross, District Judge.
Mr. Standish Lee, Sanitary Engineer.
Mr. T. T. Leonard, President, Bangalore City Municipality.
Mr. C. M. Leonard, Principal, Central College.
Mr. A. G. King, Principal, Shemoga College.
Mr. J. W. Knight, Senior Assistant Commissioner.
Mr. C. Haudin, Superintendent of Police.
Mr. D. Ballard, Superintendent of Police.
Mr. W. Dunning, Superintendent of Police.
Mr. H. Eagles, Assistant Comptroller.
Mr. O. V. Morris, Assistant Engineer.
Mr. R. T. Scaldwell, Superintending Engineer.
Mr. W. Dalton, Chief Assistant, Public Works Secretariat.
Mr. J. R. Barrow, Chief Assistant to Comptroller.
Mr. H. Donne, Assistant Secretary, Military Department.
Mr. F. Lovery, Registrar, Dewan's Office.
Mr. St. John Buchan, Examiner, Public Works and Railway Accounts.
Mr. J. Chapham, Deputy Registrar, Chief Court.

Yours &c., ANGLO-INDIAN.

:o:

SOME MEDICAL APPOINTMENTS FOR MILITARY ASSISTANT SURGEONS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Anent the retirement of Surgeon-Major HODGKINS, who has so ably and successfully held the appointment of Superintendent, Military Medical Cadets, Medical College, Calcutta, for many years, I beg to draw your attention to yet another important State appointment, *viz.*, that of the Chief Medical Officership of the E. B. S. Ry., which might *profitably* and successfully be filled by a Commissioned Officer of the Military Assistant Surgeon Class or a (1st Class Military Assistant Surgeon over 5 years). A suggestion to this effect has already appeared in the press, and I now write to you in the hopes that you may interest yourself in the matter, so far as to bring pressure to bear on Government.

Yours &c., ONE INTERESTED.

:o:

THE SUN LIFE INSURANCE COMPANY OF CANADA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Will you be good enough to publish the following correspondence in your journal:—

Yours &c., JAMES R. WALLACE.

CALCUTTA, *27th June 1898.*

DR. JAMES R. WALLACE, M.D., F.R.C.S.
Editor and Proprietor, "Indian Medical Record."
50 Park Street, Calcutta.

DEAR SIR,

We are in receipt of your letter of the 16th instant addressed by you, evidently by mistake to Mr. D. J. WADIA instead of to ourselves, and have seen our clients on the subject thereof. Our clients are unable to accept your explanation, as in any way satisfactory. They find that in the same breath that you tender an apology you try to justify the libel, and this is confirmed by the demand that you make in paragraph 4 of your letter for a complete answer to the interrogations made by your correspondent with a view to publish the same in the next issue of your pamphlet. Our clients cannot accept your statement, that the letter of your correspondent was published in good faith and for public good, but they repeat that the letter published under the heading of "Bogus Insurance Companies" and with the editorial foot-note attached thereto by you is a positive libel, falsely and maliciously published, and cannot but injuriously affect their business interests and their character and reputation as one of the best Insurance Companies doing business in India. Our clients deny your right to make the demand made by you in paragraph 4 of your letter, and do not consider themselves bound or called upon to answer any interrogations which are made in the public press or pamphlets. They would however be too glad and happy to satisfy any honest and *bonâ fide* enquiry that may be addressed to them. We may inform you that, as a matter of fact, your correspondent, M. MANASAWMY IYER, has had some correspondence with our clients on the matter, and our clients have answered his enquiries fully

Nothing short of an apology as per enclosed form will satisfy our clients; unless therefore you tender an apology to our clients in the form enclosed and agree to publish it in the next issue of the *Indian Medical Record*, we have positive instructions to proceed further in the matter as already intimated to you at your risk as to costs and consequences.

Yours faithfully,
(Sd.) EDGELOW and GULALCHAND.

13, Old Post Office Street, Calcutta, 6th June 1898.

Messrs. EDGELOW & GULALCHAND,
Solicitors, Bombay.

DEAR SIRS,

Sun Life Assurance Company of Canada.

DR. WALLACE, the Editor of the *Indian Medical Record*, has handed us your letter of the 29th ultimo with instructions to reply thereto.

Our client's former letter was addressed to Mr. WADIA, because it was that gentleman who wrote to our client.

Our client is advised that there is nothing libellous in what he has written, nor is there anything of that nature in the letter from his correspondent which he published. However that may be, our client has stated in unmistakable language that he had no intention to defame your clients, and he has expressed his regret for and withdrawn anything written that may be construed in such way as to have any evil or harmful effect upon the company. Our client has, moreover, published this letter in the *Indian Medical Record*, and we contend that he has done all that he can be expected to do to remove any wrong impression that might be created We would point out to you that for our client to say he accepts the advertisements of none but genuine Insurance Companies in the *Record* is not to say that your client's company is otherwise than genuine, because it has not an advertisement in that paper. This would appear to be the inference you draw in your letter now under reply

We trust that under the circumstances you will see that our client has done all that he can reasonably be expected to do in this matter If your clients after this take any legal proceedings in this matter, they will do so at their own risk.

Yours faithfully,
(Sd.) S. J. LESLIE & SONS.

Bombay, 9th June 1898.

Messrs. S. J LESLIE & SONS,
Solicitors,
13, Old Post Office Street, Calcutta.

DEAR SIRS,

The Sun Life Assurance Company of Canada
and
The "Indian Medical Record."

We have received this morning your letter of the 6th instant

The apology contained in your client's letter of the 16th ultimo is not absolute and unqualified, and it is an apology of the latter sort, which is due to our clients. The article published by your client and complained of by ours is positively defamatory and cannot but be harmful to our clients. By publishing his letter of the 16th ultimo in the *Indian Medical Record*, your client has only added an insult to injury, for the demand contained in paragraph 4 of that letter is calculated to leave an impression in the minds of the readers of the *Indian Medical Record*, that there is some information relating to the management and affairs of our client's company which they withhold from the public, and to lead them to draw an inference therefrom, adverse to our clients. Your client has not done what he is bound to do.

We give him this one more and final opportunity to tender an absolute and unqualified apology to our clients for having published the article in question, and to give him this notice through you that unless he does so within 8 days from the receipt hereof by you, and publishes such apology in the next issue of the *Indian Medical Record*, we have peremptory instructions to file an action against him, and he will then have to thank himself only for the consequences of his acts.

Yours truly,
(Sd). EDGELOW & GULALCHAND.

13, Old Post Office Street, Calcutta, 14th June 1898.

Messrs. EDGELOW & GULALCHAND,
Solicitors, Bombay,

DEAR SIRS,

The Indian Medical Record
vs.
The Sun Life Assurance Co. of Canada.

Your favor of the 9th current. Our client has not qualified his apology in any way, nor has he any intention to do so. He has through us to you, as well through the medium of his journal, expressed his regret and again expresses his regret for anything that has appeared in the *Indian Medical Record*, which might be deemed harmful to the reputation of your client's company, but he cannot and does not withdraw from the assertion that he did not intentionally write or publish anything that could harm that company, nor does he think that anything that has been written or published by him could be construed to be harmful to the reputation of the company in any way. We are further to add that our client absolutely withdraws anything in the foot-note and heading of the published letter that you may consider offensive, and he regrets that your clients should have found anything offensive therein.

This letter will be published in the next issue of the *Indian Medical Record*, the only paper in which the letter complained of has appeared, but our client cannot agree to its being published in any other paper or in any other way.

Yours faithfully,
(Sd.) S. J. LESLIE & SONS.

Medical Trade Notices.

LIQUOR SEDANS.

A UTERO OVARIAN SEDATIVE AND ANODYNE.

PARKE, DAVIS & Co.,
Manufacturing Chemists, Detroit, New York, and Kansas City, Walkerville, Ont.

Each Fluid ounce Represents:

Viburnum Prunifolium	60 grains.
Hydrastis (represented by the white alkaloid, hydrastine	60 grains.
Jamaica Dogwood	30 grains.

Combined with aromatics.

PHYSICIANS who have given special thought or study to the subject maintain that the conditions of modern life foster uterine and ovarian disorders, and as a result, gynecologists flourish, and medicaments designed to regulating these disordered functions are in great demand.

While many uterine and ovarian troubles can be remedied only by mechanical means or surgical procedures, perhaps the majority are not sufficiently grave to require operative treatment. Among these latter may be classed many cases of dysmenorrhœa and ovarian hyperæsthesia, for the relief of which the patients periodically resort to alcohol, the narcotics, or some of the much vaunted nostrums in the market.

A careful study of medical literature for the past few years and the great importance ascribed by many medical writers, teachers and practitioners to Viburnum Prunifolium (Black Haw) in regulating uterine function; the specific action of Hydrastis (Golden-seal) in the catarrhs accompanying uterine irregularity, and the well-known anodyne and sedative value of Jamaica Dogwood (Piscidia Erythrina) and its freedom from the depressing after-effects of opium preparations, suggested to us the propriety of offering a palatable combination of these three remedies.

We offer this to the profession under the name of Liquor Sedans, and feel certain that it will be found a most convenient and serviceable combination for a very large class of cases of dysmenorrhœa, ovarian irritability and irregularity of the utero-ovarian functions.

Samples furnished to physicians for private or hospital practice free, on request, and reports, favorable or unfavorable, solicited.

WHAT A LEADING AMERICAN PHARMACEUTICAL JOURNAL SAYS ABOUT STEARNS' WINE OF COD LIVER OIL WITH PEPTONATE OF IRON.

According to the *Pharmaceutical Era* "Physicians are delighted with the new preparation of Cod Liver Oil, recently put on the market by F. STEARNS & Co. of Detroit, Mich. The conception of combining Cod Liver Oil in a palatable shape, with a most assimilable form of iron, is one worthy of the support of all and most certainly is this conception carried out in STEARNS' Wine of Cod Liver Oil with Peptonate of Iron. That the efficacy of the oil is due to alkaloids, has been thoroughly demonstrated, but it has been left for this enterprising firm to present them in a useful shape and thereby obtain the efficacy of the oil, without the nauseating properties so long attributed to it. STEARNS Wine of Cod Liver Oil can be taken by any one, no matter what his previous experience with the plain oil has been, and when we have the manufacturers' assurance that the preparation represents all of the active medicinal constituents of the oil, and the effect enhanced by the addition of good wine and peptonate of iron, 4 grs. to the ounce, it certainly must be a preparation worthy of the foremost place in the ranks of palatable pharmaceutical productions."

Government Medical Gazettes.

GOVERNMENT OF INDIA.

To be Ordinary Members of the Mily. Divn of the third class or Companions of the said most Honorable Order :—

Surgn.-Col. Ed. Townsend, A.M.S.

Surgn.-Col. George McBride Davis, D.S.O., I.M.S

Brig.-Surgn.-Lieut.-Col. William Egerton Saunders, A.M.S.

Surgn.-Maj.-Genl. Robert Harvey, D.S.O.

The Queen has also been graciously pleased to give orders for the following appointments to the Distinguished Service Order, and promotions in the Army, in recognition of the services of the undermentioned Officers during the recent operations on the North-West Frontier of India :—

To be Companions of the Distinguish Service Order,

Brig.-Surgn. Lieut.-Col. Charles Henry Swayne, A.M.S.

Surgn.-Maj. Johnston Shearer, I.M.S.

Surgn.-Capt. Thomas Herbert John Chapman Goodwin, A.M.S.

Surgn.-Capt. John Fraser, I.M.S.

Surgn.-Capt. William Selby, I.M.S.

Surgn.-Lieut James Henry Hugo, I.M.S.

ARMY MEDICAL STAFF

To be Surgn.-Lieut.-Col

Surgn.-Maj. Hayward Reader Whitehead.

To be Surgn.-Majors.

Surgn.-Capt. Charles Henry Burtchaell, M.B.

Surgn.-Capt. John Joseph Gerrard, M.B.

INDIAN MEDICAL SERVICE

To be Brig. Surgn.-Lieut.-Col.

Surgn.-Lieut.-Col. Henry Hamilton, M.D.

To be Surgn.-Lieut.-Col.

Surgn.-Major Thomas Grainger, M.D.

The Queen has been graciously pleased to make the following appointment to the most eminent order of the Indian Empire :—

To be Companion.

Brig.-Surgn.-Lt.-Col. Arthur Mudge Branfoot, M.B.

Brig.-Surgn.-Lieut.-Col. G. C Hall, F.R.C.S., I. M. S., Beng. Estab., is granted the tempy rank of Surgn.-Col. with effect from 1st June 1898, whilst offg. as Insp.-Genl. of Civil Hosps. N.-W.-P. and Oudh, *vice* Surgn.-Col. W. P. Warburton, M.D., on leave.

The services of Surgn.-Capt. J. Davidson, M.B., C.M., I. M. S., (Beng.), are placed tempy. at the disposal of the Govt. of N.-W.-P. and Oudh from 12th May 1898.

BENGAL GOVERNMENT.

The services of the undermentioned officers are replaced at the disposal of the Govt. of Beng., with effect from dates on which they respectively assumed charge of their duties :—

Surgn.-Capt. B. H. Deare, I. M. S. (Beng.)

Surgn.-Capt. B. C. Oldham, I. M. S. (Beng).

The services of Surgn.-Capt. A. Gwyther, M.B., C.M., I. M. S. (Beng.), are placed tempy. at the disposal of the Govt. of Beng. for employment on plague duty, from 2nd May 1898.

The services of Surgn.-Capt. W. J. Buchanan, M.B., B.Ch., I. M. S. (Beng.), are placed permanently at the disposal of the Govt. of Beng.

Mrs. L. Slater is apptd, to be an Inspg. Offr. for the purpose of carrying out the provisions of the Epidemic Diseases Act, 1897, at Chakradharpur, on the B. N. Ry., *vice* Mrs. R. Dias, resigned.

In exercise of the powers conferred by Rule 11 of Plague Regulation, dated 30th Nov. 1897, the Lieut.-Govr. is pleased to appt. Surgn.-Capt. A. Gwyther to be Inspg. Med. Offr. at Chausa Station on the E. I. Ry., Shahabad, *vice* Surgn.-Capt. W. J. Buchanan, transferred.

Surgn.-Capt. B. H. Deare, on return from mily. duty, is apptd. Civil Surgn of Nadia.

Surgn.-Capt B. C. Oldham, on return from mily. duty, is apptd to be Civil Surgn. of Backergunge, *vice* Surgn.-Lieut.-Col. Kalipada Gupta, transferred.

Surgn.-Maj. T. R. Macdonald, Offg. Civil Surgn., Murshidabad, is allowed, leave for 18 months, from 30th June 1898.

Surgn.-Maj. J. H. T Walsh, Civil Surgn., Midnapore, is apptd. to act as Civil Surgn. of Murshidabad, during absence of Surgn.-Lieut.-Col. E. Bovill.

Asst. Surgn. Monomohun Gupta, Offg. House Surgn., Eden Hosp., is apptd. to act as Teacher of Medicine and Midwifery, Dacca Med. School, during the absence of Asst. Surgn. Kunja Lall Sanyal.

Asst Surgn Behari Lal Pal, doing supy duty at the Med. Coll. Hosp., is apptd. to act as House Surgn., Eden Hosp., during the absence of Asst. Surgn. Bhola Nath Pal.

Asst. Surgn Rojoni Kanto Das Gupta is re-apptd. to the med. charge of Bhola Nath Bose's dispy., Barrackpore.

Asst. Surgn. Hira Lal Dutta, supy at the Med. Coll. Hosp., is allowed leave for six months, from 23rd May 1898.

Asst. Surgn. Upendra Narayan Roy, in med. charge of Charitable Dispy., Chapra, is apptd. to med. charge, J. Charitable Dispy., *vice* Asst. Surgn. Uma Charan Roy, transferred to Chapra.

Asst. Surgn. Uma Charan Roy, in med. charge Charitable Dispy., Jessore, is apptd. to med. charge of the Charitable Dispy., Chapra, Saran dist., *vice* Asst. Surgn. Upendra Narayan Roy, transferred to Jessore

PUNJAB GOVERNMENT.

Surgn.-Lieut Col W. B. Miller, Med. Staff, held charge of the civil med. duties of Dalhousie in addition to his own from 9th to to 16th April 1898.

In anticipation of his services being replaced at the disposal of the Govt. of Punjab, on return from leave on private affairs, Asst Surgn. W. Forrester assumed charge of civil med. duties of Gurgaon on 20th May 1898, relieving Asst. Surgn. Sri Ram

In anticipation of his services being placed at the disposal of the Govt. of Punjab, Surgn.-Lieut. W. W. Clemesha is apptd. Special Health Officer of Simla, where he assumed charge of his duties.

Surgn.-Capt. W. R. Clark, Civil Surgn., Umballa, who is deputed on special duty in connection with plague, reported himself for such duty at Phagwara.

Asst. Surgn. Kristin Chand, Civil Hosp., Umballa, is placed in civil med. charge of Umballa, in addition to his own duties, *vice* Surgn.-Capt. W. R. Clark.

Surgn.-Major J. Clarke, M.D., Civil Surgn., Gurdaspur, reported his departure from Karachi on 24th April 1898 on the furlough to Europe granted to him on 15th April 1898.

Surgn.-Capt J. Mulvany assumed charge of civil med. duties of Bannu on 31st May 1898, relieving Surgn.-Capt. F. R. Cunard.

Hosp. Asst. Shiurakh an Lal, of the Indian Sub. Med. Dept., Bengal Estabs., attached to No. 18 (Himalaya)-Survey Party, Simla, is tempy. placed at the disposal of the Govt. of Punjab for inspn. duty.

BOMBAY GOVERNMENT.

The following transfers are sanctioned :—

Asst. Surgn. A. V M. King, from House of Correction, Common Jail, Bombay and Byculla Schools, 29th April 1898, to sub-charge St. George's Hosp., Bombay, from 29th April 1898, *vice* Asst. Surgn. H. A. Lafond, granted leave

Asst. Surgn. H. A. Lafond, from St. George's Hosp., 28th April 1898, to Mily. Dept., 29th April 1898.

Hosp. Asst. Nasrewanji Pallonji, from Uran Dispy., 24th April 1898, to Byculla Schools, Bombay, 29th April 1898, *vice* Hosp. Asst. Vithal Lingo, transferred.

Hosp. Asst. Vithal Lingoo, from Byculla Schools, 29th April 1898, to House of Correction, 29th April 1898, *vice* Asst. Surgn. A. V. M King, transferred.

Hosp. Asst. Ram Singh, from Police Hosp., Ahmedabad, 25th Sept. 1897, to Viramgam Dispy., 28th Sept 1897.

Hosp. Asst. Hari Krishna Rayaker, from Viramgam Dispy., 28th Sept. 1897, to Nawari Dispy., from 2nd Oct. 1897.

Hosp. Asst. Bapuji Jamardhan, from Umbagaon, Dispy., 9th Oct 1897, to Bhiwndi Dispy.

Hosp. Asst. Nasservanji Pallonji, from Sanad Dispy., 27th Sept, 1897, to Uran Dispy., from 4th Oct. 1897.

Hosp. Asst. Nagindas Lalubhai, from cholera duty, Poona, 17th Sept; 1897, to plague duty, Poona, from 17th Sept. 1897.

Hosp. Asst. Balwant Hari, from cholera duty, Poona, 1st Sept. 1897, to plague duty, Poona, from 2nd Sept. 1897.

Hosp. Asst. Bhowanishanker Harnarayen, from Bombay Municipality to Plague duty, Panvel.

Hosp. Asst. Chhaganlal Atmaram, from famine duty, 15th Oct. 1897, to Civil Hosp., Bijapur, 31st Oct. 1897.

Hosp. Asst. Bhasker Shripat, from Ry Inspn., Nasik, 13th Oct. 1897, to Civil Hosp., Nasik, from 14th Oct. 1897.

CENTRAL PROVINCES GOVERNMENT.

The services of passed med. pupil Poresh Chander Chatterji not being required by the P. W. D. or Famine duty in the Chhindwara dist., from 9th Nov. 1897, he was apptd. to med. charge of Amarwara Poor-house, Chhindwara dist., from 10th Nov. 1897 to 31st Dec. 1897.

Hosp. Asst. Vithal Moreshwar, doing duty under orders of Civil Surgn., Saugor, is appd. to Jail and Police Hosps. Saugor, *vice* Hosp. Asst Lakhshman Parshad, dismissed.

Hosp. Asst. Raghunath Tukaram, attached to Main Dispy, Chanda, is directed to hold charge of Police Hosp., Chanda, in addition to his own duties, until further orders.

On being relieved of the charge of Police Hosp., Chanda, Hosp. Asst. Kuppurajulu Naidu is directed to do duty under orders of Civil Surgn. of Balaghat.

N.-W. P. AND OUDH GOVERNMENT.

On return from mily. duty, Asst. Surgn. J. F. Fleming resumed charge of N.-W Ry. Hosp., Lala Musa, on 10th May 1898, relieving Asst. Surgn. Harnarain.

On return from leave granted to them in *Punjab Gazette*, Med. Dept. Notification, the following Hosp. Assts. were apptd. on special plague duty in the Jullundur dist. from dates noted against their names :—

Hosp. Asst. Rikhi Ram, 7th May 1898 ; Hosp. Asst Anant Ram, 6th May 1898 ; Hosp. Asst. Salig Ram, 7th May 1898 ; Hosp. Asst. Tulsi Ram, 6th May 1898 ; Hosp. Asst. Labhu Ram, 6th May 1898 ; Hosp. Asst Sant Ram, 6th May 1898 ; Hosp Asst. Sat Ram, 7th May 1898 ; Hosp Asst Kartar Singh, 6th May 1898 ; Hosp. Asst. Tufail Muhammad, 6th May 1898.

On return from leave granted to him in *Punjab Gazette*, Med. Dept. Notification, Hosp. Asst Harbans Singh reported himself at the Office of the Inspr.-Gen. of Civil Hosps., Punjab, Lahore, on 7th May 1898 for further orders, and was apptd. to do genl duty at Jullundur.

Hosp. Asst Harbans Singh, doing genl duty at Jullundur, was appd. to sub med. charge of Civil and Police Hosps., Jullundur, from 18th May 1898, *vice* Hosp. Asst. Kamal-ud-din, placed on special duty in the Jullundur City from the same date.

Asst. Surgn. Umar Bakhsh to plague duty at Benares from the 13th May 1898.

Surgn. Lieut.-Col. A Duncan, A.M.S., to civil med. charge of Almora dist., in addition to his mily. duties, from 12th May 1898.

BURMA GOVERNMENT.

With reference to this office Notification Hosp. Asst. Wazir Singh assumed charge at the Genl. Hosp., Rangoon, on 22nd May 1898.

Hosp. Asst. Sunder Singh relinquished charge of duties with No. 21 Party, Survey of India, at Mandalay, on 8th May 1898 and assumed charge at the Jail Hosp., Rangoon on 18th May 1898.

Hosp. Asst. Abdur Rahman relinquished charge at the Police Hosp., Kindat, Upper Chindwin dist., on 25th April 1898, and assumed charge at the Civil Hosp. of that station on the 26th April 1898.

Hosp. Asst. Chowdhry Sharafuddin, on proceeding on privilege leave for two months, relinquished charge at the Police Hosp., Myitkyina, on 26th May 1898.

Hosp. Asst. Behari Lal, relinquished charge of duties with the Public Works Dept at Mopalin Lock, Martaban divn., on 19th May 1898 and assumed charge at the Genl. Hosp., Moulmein, on 27th May 1898.

ASSAM GOVERNMENT.

Sick leave for four months is granted to Hosp. Asst. Jamini Kumar Ghosal, in extension of two months' sick leave granted in Med. Dept. Notification.

Hosp. Asst. Fakharuddin Ahmad, a supy. in the Lushai Hills dist., is apptd. to the med. charge of the Sellukot Mily. Police Outpost in that dist. from 4th April 1898.

Hosp. Asst. Parbati Charan Das, in med. charge of Sellukot Mily. Police Outpost in the Lushai Hills dist., is apptd. to med. charge of the Demagiri Dispy. in that dist. from 22nd April 1898.

Hosp. Asst Hara Lal Shome, lately in med. charge of Bomjur Outpost, Lakhimpur dist., was employed as a supyin that dist. from 21st April to 9th May 1898

Syed Gyas Uddin is confirmed as Hosp. Asst. in Assam from 29th May 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Re. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTH.

WADDELL.—At Calcutta, on the 22nd of June, the wife of Surgn.-Maj. L. A. Waddell, LL.D., of a son

MARRIAGE.

BOERMEL—HEENAN.—On the 17th March 1898, at Murree, by the Rev. Father Brawer, Chaplain, Reginald Alexander Boermel, I. S. M. D., to Winifred, second daughter of Lieut. Heenan M. W. D.

DEATHS.

WELCH.—On 25th May, at Perak, Straits Settlements, John L. Welch, M.A., M.D., Edin. second son of the late Rev. John Welch, Jamaica.

LOWDELL.—On 29th May, at Charles Road, St. Leonards-on Sea, Surgn.-Maj. Charles Lowdell, late 4th Bengal Cavalry (retired).

LE MOTTEE.—On the 5th June, at Quetta, Beluchistan, Herbert De Lisle, beloved son of Surgn.-Lieut.-Col. G. H. Le Mottee, A.M.S.,—aged 15 months.

BASU.—On the 10th June 1898, at the Medical College Hospital, Calcutta, from peritonitis, Alfred Powell Basu (Anundo Prosad), Port Commissioners' Shed Officer, only son of the late Dr. Dwarka Nath Das Basu, and grandson of the late Rev. Gopeenath Nundy of Fateghur, N.-W. P., ; leaving a widow and three children to mourn his loss.

RUSSELL.—On the 22nd June 1898, at Bareilly, from heat apoplexy, Surgn.-Capt. Archibald William Forbes Russell, I.M.S., youngest son of Alexander Elliott Russell, Esq., The Gables, Crookham, Winchfield, Hants, in his 29th year.

NOTICES TO CORRESPONDENTS.

B. L. D. (Lahore), *P. M. M.* (Tribandrum) and *H. M.D.* (Telepara).—Your names have been submitted to Director-General, I. M. S.

Fair Play and *M. A. S.*—Next number.

B. S. H (Burdwan).—Your case will be placed before the Council at its next meeting.

G. A. (Patiala).—Your interesting report will appear in our next issue.

ORIGINAL ARTICLES.

THE SYMPTOMS AND DIAGNOSIS OF PLAGUE.*

By MAHENDRA LAL SIRCAR, M.D., D.L., C.I.E.
Calcutta.

As the complaint has become very general that people are being forcibly removed from their homes on the merest suspicion, when only suffering from the slightest ailments, we think a description of the symptoms of plague, with a view to show the very great difficulties there are in arriving at a correct diagnosis of the disease, will not be inopportune at the present moment.

The disease may be conveniently divided into stages. Five stages may be noticed in a typical case ending in recovery. These are—(1) the stage of incubation; (2) the stage of the development of fever; (3) the stage of the development of local symptoms; (4) the stage of crisis or defervescence; (5) the stage of convalescence.

1. The stage of incubation, which may also be called the stage of preliminary symptoms or the prodromal stage, extends from the first introduction of the specific poison, whatever it may be, whether a living germ, or an effluvium, into the system to the first manifestation or development of fever. This stage is characterised by malaise or a feeling of being not well, evidenced by "loss of appetite, lassitude, depression, stiffness, racking of the limbs, slight giddiness, earache, palpitation at times, also dull pains about the groins, the axillæ, &c., where buboes subsequently appear." Symptoms may be worse than even these. "The face of the patient is pale and listless, the features are distorted, the eyes dull and hollow, the look staring, speech is difficult, and walking stumbling, giving the impression of one heavily drunk." There may be nausea, often vomiting, generally constipation, at times diarrhœa, oppression of the chest, intense headache. The duration of this stage may last from a few hours to five, six, seven, or even ten days. After this stage comes on

2. The second stage, or the stage of the development of fever, which is ushered in by paroxysms of shivering simulating ague, for which it may and often is mistaken. The fever is marked by irregular exacerbations and remissions. The temperature may not be higher than 100, but generally varies from 102 to 105 or 107. The pulse becomes quick, ranging from 100 to 150, weak and irregular. The respiration becomes rapid and shallow, varying from 20 to 50. "The skin is hot, dry, non-perspiring, and attended with a peculiar earthy odor most marked in the general septicæmic cases." The face appears pale and collapsed, but more often somewhat swollen; the eyes are suffused, bright, but staring; the pupils mostly dilated; the hearing weakened. With the advent of the fever the symptoms of the first or prodromal stage, the lassitude, the nausea, the vomiting, the headache become worse. In addition there is pain and a sensation of heat as of burning charcoal in the epigastrium, and at times a sensation likened to being stabbed in the breast. The thirst is said to be violent and constant. Dr. DYSON makes no mention of this in his Report of the plague in Bombay. The tongue presents a characteristic appearance, and the experienced physician may take it as an early indication of the disease: the dorsum is thickly coated white as with chalk or mother of pearl, the edges and tip remaining clear or assuming a bright red appearance. Sometimes the tongue becomes actually swollen, and, being too large for the mouth, protrudes. Later it becomes dry, cracked, and covered with a dirty brownish coating. The lips, teeth, and even the nostrils are covered with sordes. The vertigo, headache, and drunken appearance of the prodromal stage become worse, and soon pass at once into stupor and coma or after delirium, restlessness, and jactitation of the limbs and tendons. When coma supervenes the patient has a dull, stupid apathetic look with generally half-shut and seldom completely shut eyes. Even when conscious, the patient is hardly able to answer a question, if he does, he does so slowly and partially, and falls back into stupor while answering. In this stage there is either constipation or diarrhœa. The diarrhœa, according to its character, may be a favorable or an unfavorable symptom. If it is mild, simply bilious, and not exhausting, it is a good sign. If the stools are dark, offensive, copious and exhausting, the diarrhœa will aggravate the prostration and hasten the fatal end. The urine is much diminished, often bloody and may even be suppressed.

3. The third stage, which has been, though not quite correctly, called the eruptive stage, is the one in which we have the development of local symptoms. These are buboes or inflammation and swelling of the lymphatic glands. They are observed in more than two-thirds of the cases. They are found in the groins, the armpits, on the edge of the lower jawbone and the neck, quite exceptionally at the elbows, in the bend of the knee or above the clavicle. And their frequency is in the order in which they are mentioned, that is, they are most frequently found on the groins, less in the armpits, lesser still on the edge of the lower jaw and in the neck, least of all in the other places. According to RUSSEL'S statistics, in 2,700 cases of the plague inguinal buboes were present in 1,841, axillary buboes in 231 cases. Inguinal buboes occurred 175 times on both sides, 729 times on the right side, 589 times only on the left one. Axillary buboes occurred 9 times on both sides, 185 times on the right, 166 times on the left side. Maxillary buboes alone occurred only 130 times, and among these 67 times in children. CABIADIS in 1,826 cases found inguinal buboes in 720, axillary buboes in 406, cervical buboes in 98, buboes in several places at the same time in 122.

As a general rule, the eruptive stage follows the first manifestation of fever by one, two, three or rarely four days, that is, the buboes make their appearance on the second, third, fourth, or fifth day of the fever. These swellings are preceded by very acute pains of a stabbing character in the regions in which they are to appear. The enlarged glands are rarely numerous, as a rule one of a group is conspicuously enlarged. The size of the swellings varies; at the onset they are small, but soon becomes as large as a goose egg, and may even be as large as an orange, or larger. In the Bombay cases the number and size of the buboes afforded no indication of a favorable prognosis. Suppuration is generally looked upon as a favorable, flattering and unfavorable, sign.

* Reprinted from the *Calcutta Journal of Medicine* by request.

Along with buboes, boils and carbuncles may appear, but comparatively much less frequently. In Bombay the frequency was scarcely 1 per cent. In this eruptive stage in the majority of the cases the symptoms of the second continue with unabated intensity, and then become aggravated, terminating in death. Or they begin to abate and then comes the next stage.

4. The stage of crisis or defervescence follows the eruptive stage when, with the appearance of the buboes, the temperature begins to fall and perspiration sets in. The pulse becomes stronger and less frequent, falling to 100 or even 90. The patient becomes quieter if he was restless, more sensible if he was comatose. His expression becomes more natural. The tongue becomes moister and cleaner. The dilatation of the pupils becomes less, and the eyes less suffused. The urine becomes more and more copious. The buboes suppurate or in rare cases remain stationary for sometime.

5. The stage of convalescence follows insensibly the stage of crisis. It is, indeed, the continuation of the latter with continued improvement in all the symptoms. "Convalescence," according to SCHEUBE, "sometimes proceeds pretty quickly; often, however, it takes a long time, particularly in the case of prolonged suppuration of the buboes, of suppuration of internal lymphatic glands, of carbuncles, parotids, abscesses of the skin or deeper-seated tissues, of pneumonia, or of a persistence of the typhoid condition." The earliest day at which convalescence may commence is the seventh, it generally commences from the tenth and it may not commence before the fourteenth day.

The stages above described are what are observed in the typical cases where recovery takes place. Very often considerable deviations occur from this typical course. Thus, the first stage may be so short as to be scarcely noticed, and the symptoms may be the gravest from the beginning. The patient is struck down at once with utter prostration, and he may die in the course of a few hours or at the latest within two days before the characteristic symptoms are manifested, that is, before the third stage is reached. There may not even be any marked second stage, that is, there may not be any febrile reaction at all, or if there is, it is quite out of proportion to the prostration. It is to these cases that the term *fulminant* or *foudroyant* has been very properly given. They are generally observed at the commencement, but also during the course and end of an epidemic. "The conclusion," says Dr. PAYNE, "that they were part of the prevailing epidemic—the infection having overwhelmed at once, as it were, the sufferers—appears justified by the prevalence, at the same time, of an intermediate class of cases, also very quickly ending in death, in which some traces of glandular swellings were observed, with profound disturbance of the nervous centres, convulsions or coma, and rapid formation of vibices and purpuric spots."

These so-called intermediate cases should also be included in the fulminant class. The difference only is that the three first stages, though hurried one into the other so as to follow each other in rapid succession, are just distinguishable to show the character of the disease. Death takes place in the fulminant cases from within a few hours to within two days of the commencement of illness. In the cases just less severe than the fulminant [illegible] death takes place in the third stage from within four to seven days. The passing over the seventh day is looked upon as a favorable sign which promises recovery.

The order of the second and third stages may be reversed, so that the glandular swellings may occur first, and the fever come on after. These are generally, but not necessarily, mild cases. The febrile reaction after the appearance of the buboes may be very severe and lead to a fatal termination. Sometimes preceding and following an epidemic are observed cases unaccompanied with any fever or with only such slight febrile disturbance as not to preclude the patient from going about his business. These are said to be cases of abortive or ambulatory plague, abortive because they do not develop into the full disease, ambulatory because the patients can walk about. These cases do not seem to carry infection.

Dr. WINTERBURN has very properly remarked that "it is one of the characteristics of this distemper that 'on the first breaking out the disease has never been known to be the plague.'" The foudroyant cases of plague so closely resemble similar cases of pernicious malarious fever that they cannot be distinguished. The abortive cases may be mistaken for non-venereal and even venereal buboes, and vice versâ. "The glandular swellings and the carbuncles which are the significant evidences of this disorder, also occur in connection with the intermittent fevers of the same district; not to the same extent, nor with the same malignancy, but still sufficient to obscure diagnosis." Again, plague is very insidious in its first appearance. It never begins as the plague. Its forerunner often, though not always, is a constantly increasing sickliness, and a tendency of all diseases to assume the malignant type.

The difficulty of diagnosis vanishes when the disease rages as an epidemic. "No other idiopathic fever," says CABIADIS, "attacking a multitude of persons at the same time, is characterised by glandular swellings, carbuncles, and by those severe manifestations of the nervous, sanguineous, and biliary systems which declare themselves in an attack of plague." During an epidemic the foudroyant and the abortive cases cannot be mistaken for any other disease. During an epidemic a patient may be known to be plague-stricken by his very physiognomy which is one of apathy and lebetude, and very seldom of anxiety and undefined fear. Such diagnosis, however, would be deceitful and dangerous at other than epidemic times.

What about the bacteriological diagnosis of plague? Our readers are familiar with the so-called grand discovery of the specific bacillus of plague by the Japanese bacteriologist KITASATO, independently and almost simultaneously corroborated by the French bacteriologist YERSIN. And notwithstanding the investigations made by Commissions of several Governments, notably of Germany and Egypt, and the investigations by HAFFKINE and HANKIN, we do not think the matter has been quite definitely settled yet. There is still so great a difference of opinion on the subject, as we pointed out in our last number, that it has led Professor CROOKSHANK to believe that the real nature of the contagium of plague is yet unknown. And only recently the Health Officer of Calcutta is reported to have said that even in undoubted

cases of plague after bacteriological examination of the blood from had given positive results. Under these circumstances to place absolute reliance upon bacteriological diagnosis would not be safe and may be, as we know to our cost, dangerous.

SOME PRACTICAL POST-MORTEM POINTS.*

By GEORGE W. COX, M.D.,

Chief Surgeon, Chicago and Texas Railroad; Member Illinois State Medical Society, and Examining Surgeon Bureau of Pensions, Murphysboro, Illinois, U.S.A.

1. GET all the anatomical knowledge you can out of every autopsy you make. It is, therefore, advisable, especially in the case of females, to perform a preliminary laparotomy. Many surgical operations can be practiced upon the body without disfigurement—such as Alexander's operation, removal of the appendix vermi formis, stretching of the sciatic nerve, etc.

2. Do not forget to dictate the post-mortem notes while the autopsy is in progress.

3. Respect the feelings of the friends in every possible manner, and always return everything in a private house to its proper place. Be sure to leave no bloodmarks behind.

4. Be sure you have the legal right to make the post-mortem before you begin. The nearest relative, or the one who is going to pay the expenses of the funeral, should give the consent in writing.

5. Do not take away more tissue from a post-mortem than you are able to thoroughly work up.

6. Try to encourage a demand among the laity for the performance of autopsies.

7. In making an autopsy, have a regular method for its performance, which is only to be modified by exceptional circumstances. Finish the examination of each organ in as thorough a manner as possible before the examination of another organ is commenced.

8. Label all your specimens at once with name of person from whom the specimen is removed, character of the specimen and relations in the body, date, and preservation fluid employed.

9. If you are so unfortunate as to cut yourself, wash the wound with running water for four or five minutes, and then dress antiseptically. Do not, out of bravado, go on with the post-mortem if there is anyone else present who can complete it.

10. If you are not making the autopsy yourself, do not be too forward in making suggestions to the one who is making it; but always be ready to do anything that you are asked to do in connection with the autopsy.

11. Let your medical friends enjoy the autopsy and specimens with you.

12. Get all the post mortems you can. Never refuse to make an autopsy for another when you possibly can.

13. Tact will get you many autopsies; curiosity of relatives and friends can often be worked upon to get permission for an autopsy.

14. As the object of the autopsy is usually to find out the cause of death, either for legal or scientific purposes, the post-mortem should, therefore, be conducted in as thorough a manner as possible.

15. In legal cases, be sure to protect yourself in every way. The jars, which should never have been used, containing the specimens, should be sealed in the presence of a witness.

16. If you value your peace of mind, do not put yourself forward as an expert witness in medico-legal matters. Knowledge, which you already have, should be freely given to the court in criminal cases, but the court cannot compel you to obtain expert knowledge without your consent.

17. In Germany, the legal evidence of a post-mortem held by gaslight, has been judged by the court, except under certain peculiar circumstances, to be void.

18. If two persons are lifting a body, the lightest weight is at the feet.

19. Chloroform placed on a towel, and the head enveloped therein, will quickly dispose of pediculi capitis.

20. Many signs of inflammation, especially of the mucous membranes, disappear after death. Remember, red flannel often colors the skin red.

21. Make the undertaker your friend. Do not recommend an undertaker who disapproves of post-mortems.

22. It is a good knife that will keep its edge in more than one post-mortem.

23. Do not jump at conclusions too quickly. Tentative diagnoses alone should be made until the post-mortem is complete.

24. Always weigh the important organs, and have some method by which you can tell the right from the left organ in case of the double ones. One nick in the left sided organ, and two in the right will readily distinguish them.

25. Wash your hands frequently during the performance of an autopsy so as not to allow the blood to dry on the skin.

26. In opening a cystic kidney, be careful that the liquid does not injure the eyes nor soil the linen, as when the kidney is opened, the liquid in the cyst is under pressure, and may squirt several feet.

27. A duct can often be easily followed by making a nick in it and then introducing a grooved director in the direction you desire to dissect. This is especially useful in the ureters and the ductus choledochus communis.

28. In writing the account of an autopsy, describe what you see; do not use names of diseased conditions; these should be put in under the head of pathological diagnoses.

29. Wine or aromatic spirits of ammonia will best take off the odor from your hands. This odor is usually gotten from opening the intestines.

30. Ammonia will usually remove iodine stains. A weak solution of the hypobromite solution will remove carbol fuchsin and other aniline stains from the hands.

31. Any organ which you desire to save should be placed in a safe place, so that it will not be returned to the body and sewed up.

32. The dissecting room is a poor place to study pathology on account of the chloride of zinc forming with albumen an insoluble albuminate of zinc.

33. Nervous tissue for microscopic study should not be placed in zinc chloride or in alcohol.

* Reprinted from the *Medical World* by request.

34. Remember that a post-mortem, with the exception of the brain and cord, can be made with a pen knife.

35. Remember that the thoracic and abdominal organs can be removed by the rectum or the vagina.

36. Before removing the calvarium, have a basin so placed that it will receive the blood and cerebro-spinal fluid.

37. Drawings, photographs, casts, cultures of micro-organisms, and microscopic slides are valuable additions to a well written account of an autopsy.

38. A lesion in one part of the body will often suggest a careful search for a lesion in another part of the body.

39. Do not mistake the normal for the abnormal.

40. Squeezing the gall-bladder after the duodenum has been laid open, will often cause bile to pass out of the papilla; the ending of the common bile-duct can thus be demonstrated.

41. Remember that frozen sections of fresh tissue can be cut and mounted in a half hour to one hour.

42. Three hours is none to long in which to make a complete autopsy.

43. Be careful that the first rib does not scratch your hands when removing the tissues in that region; therefore cover over the cut ends of the clavicle and ribs with the skin flaps.

44. Blood makes a good glue for affixing labels, and the blood of a person dying from hydrocyanic poisoning makes a most excellent red ink, which will keep for years without the addition of any preservative fluid.

45. Remember that after the brain has been removed the fundus of the eyes can be removed by a circular incision posteriorly, without disfigurement. The inside should then be stuffed with dark colored wool or cloth.

46. In private cases, you will frequently be judged as to your skill as a pathologist by the neatness with which you sew up the body.

47. If you discover suspicious lesions, always stop the post-mortem and report the case at once to the coroner.

48. Remember, in warm weather, that the intestines are especially liable to undergo rapid decomposition when exposed to the air.

49. Remember that a railroad train or cart may pass over the body and there be no more abrasion in the skin than a brush burn.

50. Remember that the color of organs is frequently changed when exposed to the air by the oxidation of the hæmoglobin; also that the sulphide of iron frequently discolors organs after death, due to the sulphuretted hydrogen during decomposition precipitating the iron of the hæmoglobin.

51. The clavicle can be grasped and moved, and the clavicular sternal articulation thus readily discovered.

52. In removing the cord, the following method may be used without disfigurement to the skin of the back part of the neck. Make a circular incision from the middle of the trapezius muscle of the one side to the middle of the same muscle on the other side, using as the center of the circle the external occipital protuberance; this will take you in the median line to about the second dorsal vertebra; then dissect away the skin with the muscle attached, and elevate the flap with a tenaculum and draw the shoulders backward; a sufficient amount of space will then be given to remove the cord in the usual manner.

53. If the rectus muscles on each side be cut near its origin, in the direction of Poupart's ligament, the abdominal cavity will be much more thoroughly exposed to view than in the ordinary manner: first, however, examine with the finger for hernia.

54. And lastly, be honest. Everyone diagnoses lesions during life which are not found at the post-mortem. Even after a most careful post-mortem, it is often impossible to tell from what the patient died.

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EMERGENCY OPERATIONS.*

By McADAM ECCLES, M.D., M.S. (Lond.), F.R.C.S.E.
Assistant Surgeon to the London Hospital.

To the four classical surgical emergencies—(1) asphyxia, (2) hæmorrhage, (3) intestinal obstruction and (4) retention of urine—, a fifth—cerebral compression—must now be added. None of these brooks delay, and in all of them practically operation is indicated. As time will not permit entering into any of them exhaustively, only some salient points of each will be mentioned.

I. *Asphyxia.*—Any tube in the body may have its lumen obstructed by (1) compression from without, or by (2) obstruction from some substance within the tube, or by (3) some thickening of its own walls, chiefly due to new growths or inflammatory products. Pressure on the trachea (which is the tube, most commonly dealt with in surgical asphyxia) may be caused from without by a thyroid tumor, for instance, or it may be blocked by a pea or bean or other foreign body that has been inspired—in this latter case a bronchus is more frequently blocked than the trachea—or its lumen may be narrowed by its own walls being thickened by a deposit of membrane such as in diphtheria. Any part of the respiratory tract may be thus occluded and demand immediate removal of the cause of the obstruction. This may either be impossible or may consume too much time while the patient is dying for want of oxygen. Failing to get rid of the cause, we must overcome the effects of the blocking by making an artificial opening, if possible, below the site of the obstruction. This may be done by (1) high or (2) low tracheotomy, (3) laryngotomy, or (4) laryngo-tracheotomy. Though the last operation is most suitable for children, still the first has often to be performed in an emergency without adequate assistance or a plethora of instruments, and very likely in a house in which there is a great deal of confusion.

The instruments essential for high tracheotomy (*i.e.*, above the isthmus of the thyroid gland) are:—A *sharp* scalpel, a pair of dissecting forceps with a good spring, several pressure forceps for temporarily arresting bleeding, a pair of blunt hooks, a trachea dilator. All these should be scrupulously clean and sterilised just before use: so if there be a kettle on the fire in a sick room just drop your instruments into the kettle.

* A Post-Graduate Lecture Delivered at the West London Hospital and specially reported for the *Indian Medical Record.*

While your instruments are boiling, loosen the patient's clothing and wash his neck with soap and water and an antiseptic, if any be at hand. Spirits of wine is often in a house and is a good emergency antiseptic to use. Then wrapping a towel or a shawl round the upper part of the trunk, so that his arms may be bound to his body, place the patient on his back on a table in a good light—with his neck extended as far as possible and his chin and sternum in the same line; so that the structures in the middle line become tense and, possibly, the superficial veins slightly emptied.

If the patient is completely unconscious, no anæsthetic is needed; but if otherwise and neither cocaine nor eucaine be available, a little chloroform will help to overcome the spasm of the glottis. Now standing on the *right side* of the patient make an incision well up on the larynx in the middle line starting from the lower border of the thyroid cartilage and continuing it downwards for at least 1·5 inch. Never rest your elbow on the chest of the patient whose violent efforts at respiration will shake your elbow and spoil the operation which should be performed promptly and quickly, but studiously avoiding hurry and always keeping in the middle line unless the trachea has been pushed aside by a tumour when its true position must be made out and the trachea steadied with the left hand while the incision deepened through the subcutaneous tissue to expose the muscles, which must be carefully separated from each other in the middle line and all bleeding points seized with pressure forceps. Remember the venous bleeding, which is really due to engorgement of the right side of the heart by the respiratory obstruction, rapidly ceases when the trachea is opened. The deep cervical fascia lying across the upper part may cause a little trouble, but the best plan is to divide this fascia vertically and go right down through the isthmus of the thyroid gland, though in patients, exceeding 10 years of age, it is better to divide the deep cervical fascia transversely and drag it (and the isthmus of the thyroid gland) downwards. As soon as the whitish rings of the trachea *are clearly seen and definitely felt*, plunge the scalpel, with its cutting edge towards the chin, into the trachea in the middle line and incise upwards through the first two rings of the trachea and through the middle of the cricoid cartilage in infants. The trachea being opened and the edges of the wound held apart by the blunt hooks, clear out as much as possible of the obstructing membrane by picking it off with the dissecting forceps or by twisting it on to a feather moistened with bicarbonate of soda. Some suggest that the membrane should be sucked up. When the trachea has been sufficiently cleaned out, the tube may be placed in position and the wound treated antiseptically.

II.—*Hæmorrhage* demands prompt attention, no matter what its cause or origin. Leaving injuries, &c., aside for future consideration, let us confine ourselves to one of the means for overcoming loss of blood, whether from so-called rupture of a varicose vein or *post-partum* bleeding. To overcome the collapse produced by the diminished blood pressure, owing to the unfilled state of the vessels, the former practice was to (1) either directly transfuse the blood from one person into the veins of another, or (2) blood was taken from the giver into a bowl, then defibrinated and passed into the veins of the receiver; but both these methods are open to serious objections and the grave risk of subsequent embolism.

It is now recognised that all that is needed is a fluid of such a nature as will not injure the blood of the receiver, and the details of the method are as follows:—The skin over one of the subcutaneous veins at the bend of the elbow or on the dorsum of the foot having been rapidly and thoroughly cleansed and the vein cut down on and divided transversely, a cannula (preferably of vulcanite) is passed into it and tied into position. To the cannula is attached some 2 feet or more of rubber tubing provided with a funnel and a clip to control the flow. Through this funnel is introduced by hydrostatic pressure from a height of about 18 inches sufficient warm water containing common table salt in the proportion of a teaspoonful to the pint, or a more elaborate fluid made by mixing sodic chloride grs. 50, potassic chloride grs. 3, sodium sulphate and carbonate aa grs. 25, and sodium phosphate grs. 2 in 1 pint of boiled water. At least 30 ounces (sometimes several pints) of either of these fluids maintained at 100°F are transfused into the veins of the receiver as a temporary measure to increase the tension in the vessels and so enable the heart to continue its action until the patient is able to form fresh blood to fill the vessels. If the necessary apparatus is not available and the heart is still beating with fair strength, the fluid may be rapidly absorbed into the vessels and the blood pressure increased by injecting about half a pint of fluid into the rectum or the fluid may be introduced into the cellular tissue on the surface of the scapula.

III.—*Intestinal obstruction* is too large a subject to be dealt with here, but delay in treatment by operation is to be deprecated and herniotomy is certainly preferable to taxis in the majority of cases of strangulated hernia.

IV.—*Retention of urine* often causes very painful and dangerous distension of the bladder which is only partially covered with peritoneum on its upper and posterior part. The bladder may be entered, without injury to the peritoneum, through (1) the urethra, (2) just above the symphisis pubis, and (3) through the rectum below the reflection of peritoneum. The last method is open to several objections, and where entrance is impracticable *per urethram*, the bladder may be reached by supra-pubic aspiration, to do which first shave and wash the pubic region, after which make a small incision in the skin in the middle line just above the symphisis. Puncture the bladder through the incision with a fine trocar and cannula attached to the aspirator bottle. The puncture should be made downwards and backwards towards the tip of the coccyx and the amount of rarefaction in the bottle should be slight. Repeated aspiration does very little harm, provided a small trocar and cannula are used.

V.—*Cerebral compression* may be due to (1) depressed fracture, (2) extra-dural hæmorrhage or the presence of pus either (3) extra-dural or (4) intra-cerebral. Operation is imperative, as it is an emergency in which prompt operation may make all the difference between life and death, and in the majority of cases the operation consists of trephining and removing the cause of the compression.

HYGIENIC AND MEDICAL ASPECTS OF A TYPICAL NATIVE SCHOOL IN INDIA.

By JOSEPH BENJAMIN BAMNOLKAR, G.M.S.
Medical Practitioner, Ahmedabad.

On the 5th March 1898, Drs. N. D. CHAKRAPATI and C. H. DESAI were deputed to accompany me and report on the health, and other conditions of the Ahmedabad Khadia Municipal Vernacular School, which occupies three rented buildings in a very crowded portion of the city. The subjoined is an account of the main building, the lower floor of which is occupied by 28 boys of the VI Standard. This schoo'-room, which opens to the south only—the other sides being shut in by houses with a narrow street separating them—is 24 feet long by 16 broad, and has a sloping roof, which is 102 inches at its highest and 70 inches at its lowest height from the ground and is devoid of ceiling.

The area of the room was 384 feet and its cubic capacity 2,688 cubic feet; thus allowing 10 square or 72 cubic feet per pupil, which is 5 and 78 feet respectively *below* the minimum laid down by NEWSHOLME.

Five east and two north windows, each measuring 64 by 27 inches and a south door 78 by 33 inches furnished light and ventilation to the pupils, who had to squat on the floor; for desks or benches there were none, and the total furniture of the room consisted of a table, a chair, a black board, a gong, 3 maps and a box for records.

Four of the pupils were Mahomedans, while the remainder, who were Hindus, may be further classified—6 Avdich Sapasra; 2 Travadi Mewada, 2 Modh Chachurvedi, 1 Bhat Mevada, 1 Shrigod, 1 Visnagra Nagar, Sachora (*i.e.*, 14 Brahmins of sects), 3 Banias, 4 Kunbis, 1 Tamboli, 1 Gola and 1 Koli.

As neither steelyards nor weighing machine were available, we could not add the weights of the boys to the following information concerning them, according to their several ages:—

Detail of Age.		12	13	14	15	16	17	18	19	Total.
Number of boys in school	...	2	2	5	3	7	6	2	1	28
Number of boys married	...	1	2	2	2	5	5	1	...	18
Number of boys single	...	1	..	3	1	2	1	1	1	10
Number of smokers	...	..	2	1	1	1	2	1	...	8
Number of non-smokers	...	2	...	4	2	6	4	1	1	20
Height of boys shown in inches	rising 51	1	1	.	..	..	...	...	...	2
	,, 52	1	...	...	...	...	...	...	..	1
	,, 53	..	1	..	..	...	.	...	...	1
	,, 54	..	..	2	1	1	..	...	...	4
	,, 55	..	..	1	..	1	..	...	..	2
	,, 56	...	..	...	...	1	...	...	...	1
	,, 57	...	...	...	1	...	...	...	...	1
	,, 58	...	...	1	...	...	...	...	...	1
	,, 60	...	...	1	1	...	2	...	...	4
	,, 61	...	.	...	...	2	...	...	..	2
	,, 62	...	...	...	...	1	...	...	...	1
	,, 63	...	...	...	...	...	1	1	1	3
	,, 64	...	...	...	...	1	1	...	...	2
	,, 65	...	...	...	...	...	1	...	...	1
	,, 67	..	...	...	...	...	...	1	...	1
	,, 68	...	...	...	...	..	1	...	..	1
Chest measurement in inches	rising 23	1	2	1	1	...	...	...	...	5
	,, 24	1	...	2	...	2	.	...	...	5
	,, 25	...	...	2	1	1	1	...	...	5
	,, 26	...	...	...	1	1	...	.	...	2
	,, 27	...	...	...	...	1	1	2	1	5
	,, 28	...	..	...	...	...	1	...	...	1
	,, 29	...	..	...	...	1	3	...	...	4
	,, 30	...	...	..	...	1	..	...	...	1

Detail of Age.		12	13	14	15	16	17	18	19	Total.
Pulse beats per minute	68 to 76	...	...	...	...	...	1	1	...	2
	80	...	1	1	1	...	1	...	...	4
	84 to 88	1	1	...	...	4	2	1	...	9
	92 to 96	..	...	1	...	...	...	...	1	2
	100	...	...	2	2	3	1	...	...	8
	108	1	...	1	...	...	1	...	...	3
Respirations per minute	16 to 20	...	...	2	1	4	3	2	1	13
	22 to 28	..	1	3	...	3	1	...	...	8
	30	1	1	...	1	...	1	...	...	4
	32	1	...	..	1	...	...	...	...	3
Number of teeth	24	2	1	1	...	1	...	...	...	5
	26	...	...	...	...	...	1	...	...	1
	28	...	1	3	1	4	2	1	1	...
	29	...	...	1	2	2	1	...	...	6
	30	...	...	...	...	...	2	1	...	3
Number of hours of sleep indulged in	7	...	...	...	1	1	3	1	...	6
	8	2	...	3	2	5	3	1	..	16
	9	...	2	1	...	1	...	...	1	5
	10	...	...	1	...	...	...	...	...	1

Briefly stated for comparative purposes the averages per pupil according to age were:—

Ages.	12	13	14	15	16	17	18	19	Total.
Height shown in inches ...	51½	51½	56	56½	59	63	64½	62½	58
Number of inches round chest ...	23¼	22½	24	24½	26¾	27½	26⅝	26½	25½
Pulse beats per minute ...	98	84	97	93	92	90	76	92	91
Respirations per minute...	31	28	22	27	22	22	18	20	24
Number of teeth ...	24	26	27	29	28	28	29	28	28
Hours of sleep indulged in	8	8½	8½	7¾	8	7½	7½	9	8

From which tables it is plainly evident that the physique of Indian school boys is considerably below that of American and European lads of similar ages; but this is due partly to the want of proper physical training and partly—rather chiefly—to insufficient feeding or poor quality of food. Thus while 5 of the lads had a mixed diet, 23 had to live exclusively on vegetable food, and took but two meals a day, while the parents of two only of these boys could afford to give them a *little* milk every morning. The staple food of 14 of these 28 boys was wheat, 6 used *bajri*, and 8 ate both wheat and *bajri*, but all of them had rice occasionally.

Vision was good in 23, fair in 2, and somewhat myopic in 3 of these boys of whom 22 kept good health, 2 suffered from chronic granular ophthalmia, 3 kept fairly well and 1 had indifferent health.

Exercise.—The school being devoid of compound or play ground, the boys, had to indulge in their rompings and games at home, and the want of this physical exercise was manifested by their flat chests and undeveloped muscles. The numerators of the following fractions shows the hours devoted to play and the denominators the number of boys who indulged in such pastimes: $\frac{0}{4}, \frac{0\cdot5}{5}, \frac{1}{7}, \frac{1\cdot5}{4}, \frac{2}{7}, \frac{3}{1}$. So that the average was $\frac{19}{28}$ play, 8 hours sleep, and something like 14 hours of school and private study. This is harmful and totally disproportionate. There should be a between-study interval.

to teach the boys physical drill, dumb-bell, swinging and such like manly and healthful exercise.

The *pulse*, though accelerated in some of the boys, was not near as strong as it should have been, and both heart-beats and respirations were hurried; but this should rather be attributed to their excited state of mind and the flatness of their chests than to disease.

Vaccination.—Twenty-two had been protected by vaccination, 5 had had small-pox, and of these 2 had also been vaccinated, while a nagar boy, aged 17, had not been vaccinated.

Bathing, &c.—Ahmedabad being supplied with tap-water, the boys get pure water for potation and ablution, but while 2 of the Mahomedan lads bathed once a week only, 1 of them bathed every fourth day and 1 every second day; whereas of the Hindu lads 2 bathed *twice* daily, 21 once a day, and 1 every two days. Of all these lads 6 favored cold baths while the remainder used warm water, and it was noticed that the cold water bathers were more robust and enjoyed better health than the others.

Civil Status.—Of these pupils 12 paid full tuition fees, 4 paid half fees, and 12 were unable to pay anything were admitted "free" of charges; 8 of them had parents who were fairly well off, 5 were in medium circumstances, and the remainder very poor. The avocations of the parents were as follows: 8 goomastas or agents or salesmen, 3 weavers, 2 educational, 2 mill hands, 2 astrologers, 1 in railway service, 1 money-lender, 2 petty traders, 1 native doctor, 1 Government pensioner, 4 professional beggars and 1 no occupation; but while 18 of these lads had both parents living, 3 had lost their fathers, 5 their mothers, and 2 were orphans.

All things considered, the boys were far more healthy than might be expected. None of them had curvature of the spine or any sort of cutaneous affection, and only one lad, who was the most puny of them all, had a wry neck and chronic pleuritic effusion in his right chest. The remainder were sound.

The "type" in which the text-books were printed was too small and rather trying for the eyes. There being no proper latrine accommodation, the boys micturated wherever they got the opportunity, and it does certainly seem strange that a large and important school like this (it has 600 boys, but we had not the time to crucially examine all of them as we did the 28 this report includes) should be without efficient periodical medical inspection, and that no arrangements exist for the rapid and definite distinction of contagious affections should any appear at this school, and the sooner the municipality remedies this serious omission, the better for the township and for the boys who would otherwise be unwisely and unkindly exposed to the risk of infection.

ARREST OF HÆMORRHAGE IN HÆMOPHILIA.

HAVING failed to arrest bleeding from a small facial wound by perchloride of iron, Dr. BIENWALD aspirated some blood from a healthy subject and deposited it on the wound which stopped bleeding as soon the added blood coagulated. His explanation that this remedy acts by supplying the ferment necessary for thrombosis in the small vessels is pretty well supported by the success obtained by Dr. A. E. WRIGHT (*Pac. Med. Journ.*) with solutions of fibrin ferment and of calcium chloride as styptics.—*La Sem. Med.*

A MIRROR OF PRACTICE.

TWO CASES OF FILARIAL DISEASE.*

BY SURGEON-CAPTAIN F. J. CRAWFORD, I. M. S.
General Hospital, Madras.

CASE I.—A man went to the Madras General Hospital, on 14th March 1897, suffering from filarial disease, the trouble for which he sought relief being periodical attacks of pain and swelling in both groins, with swelling of the "testicles" and fever. From his own account it was evident that the attacks, which were becoming more severe and frequent, were making life a burden to him. The sense of heaviness and uneasiness, the irritation of the pelvic and genital organs, the consequent fits of nervous depression and the melancholy state of mind caused by inability to carry out his marital duties were graphically described in a letter written by him while he was waiting his turn for operation in the hospital. He said that if he could not obtain relief he would end his life, and his appearance and general demeanour tallied well with this statement. He was troubled with nocturnal emissions, and though quite a young married man, the well-known mental depression which characterises such cases was well marked in him. On examination there was discovered on the right side a dydrocele which was not of the ordinary kind, but quite soft and flabby, the skin as well being slightly thickened. Both groins were the seats of swellings which consisted of several distinct glandular enlargements and enlarged lymphatic vessels, giving to the touch the characteristic boggy feeling, gradually subsiding to some extent on firm pressure. The affection had lasted for some years and the swellings had gradually become more marked. Exacerbations occurred every month or so, at which times the local trouble increased, and on these occasions the patient's mental condition, according to his own account, was one of great despondency and anxiety about himself. He made no secret of the almost uncontrollable impulse which he had during the attacks to put an end to his life. The hydrocele was first operated on and after letting out the pinkish milky fluid the tunica vaginalis was freely removed. The affection, in fact, was treated in exactly the same manner as an ordinary hydrocele. Healing readily took place and the patient remained in hospital, because subsequently to healing his groins felt heavy and swollen when he was standing. The operation on the hydrocele was performed on 17th March and on 14th April, after he had been completely cured of the hydrocele, the left groin was operated on, as it presented more urgent symptoms than the other. Two enlarged glands were removed from the inguinal region and they presented on dissection small cavities containing milky fluid, one large gland, which was like a horseshoe in shape, curling behind the vessels on the inner side and having a large portion posterior to them. Several lymphatic vessels, which were much enlarged, were cut during the operation but they gave no trouble after being caught with artery forceps. The wound healed within a week by first intention and on the 21st the right groin was cleared out. This gave more trouble owing to the number and large size of the lymphatic vessels, the

* Reproduced from *The Lancet* by request.

field of operation being obscured by the amount of milky fluid which exuded, notwithstanding the efforts to tie the vessels. The cavity quickly refilled each time it was swabbed out and required packing with eucalyptus gauze before being dressed. This gauze was removed on the next day and the subsequent healing took place readily under a firm antiseptic dressing; the limb was kept in the flexed position for a few days. There was no swelling of the limb itself due to the lymphatic obstruction either before or after the operation. This very interesting case was rendered of further interest by the subsequent history. The patient left the hospital with the operation, incisions completely healed and remained with friends in Madras for a couple of weeks before returning to his native place. About ten days after leaving the hospital he returned to say that he had just had a slight attack, but this time the skin of the scrotum had become thick and heavy without either of the groins giving him trouble, and without any implication of what he called the "testicle," alluding, of course, to the tunica vaginalis, which was the seat of trouble during his former attacks. This fact pointed to the existence of lymphatic obstruction in the neighbourhood without actual enlargement sufficient to show on the surface of the body. The emissions, which were so harassing, no longer occurred, and he stated that he was "quite a new man." He will probably return to the hospital some day with a lymph scrotum and a further operation will be necessary. Taking the case, however, as a whole, no one will doubt the propriety of the different operation performed and their success in affording relief.

CASE II.—The patient was a Eurasian, who was admitted to the hospital for a troublesome swelling in the right groin in the region of Scarpa's triangle. It was the seat of periodical enlargement accompanied by fever and uneasiness. The disease had lasted for many years and was limited to this region. No symptoms pointed to the involvement of other lymphatic vessels. A longitudinal incision exposed a mass of lymph tissue which was composed of several moderately enlarged glands and dilated vessels. Oozing of lymph was free during the removal, and it was found to be impossible to secure all the discharging points. The upper half of the incision was therefore stitched and the cavity was firmly packed with antiseptic lint. Several ounces of lymph must have been lost. Healing, though delayed by the fact that the wound was obliged to be kept open, was complete and uneventful. The oozing of the lymph ceased on the third day and did not recur, and the patient left the hospital with his local trouble quite cured. On examining the removed mass a probe could readily be passed along the dilated vessels, which were seen to anastomose freely. No filaria, however, were detected in the tumour.

Remarks.—Some interest has been excited by a paper read recently before the Bombay Medical and Physical Society on filarial disease. This disease is common in Southern India, and the Madras General Hospital is seldom without a case in its surgical wards which is either being operated on or awaiting operation. After long trial we have arrived at fairly definite rules to guide us in the treatment of this affection by operation. The disease, which is known as filariasis, cannot now be looked upon as being of purely a local character in any instance. When a patient is attacked by the parasite, he probably remains a victim as long as he lives. The question of operation therefore resolves itself into the treatment of the different local troubles and inconveniences arising from the blocking up of the lymphatic system in different parts of the body. Many of these local troubles are subjected to operation with very decided success, so much so that there is neither doubt nor hesitation on the surgeon's part, provided that the general condition is satisfactory—in fact, the ordinary limitations attending all surgical procedures which are undertaken where life itself is not in the balance. I need only mention lymph scrotum, filarial hydrocele, and abscesses occurring in the course of lymphatic vessels where dead parent worms lie embedded. Though the system may still contain numbers of the parasites, there is no doubt regarding the utility of the procedure and the relief obtained. In these cases, though the disease is the result of interference with the flow of lymph, the glands and the main lymphatic vessels themselves are not found to exhibit symptoms. In another class of patients the blocking of the lymphatic system in a part shows itself in dilatation of the lymphatic trunks, which contain a pinkish milky fluid and have thickened walls. These dilatations occur usually in the neighbourhood of glands, and on careful dissection enlarged lymph vessels may be seen passing into and others passing from them to other dilatations or to the glands close by. Accompanying these are enlarged glands due either to thickening of their tissue and proliferation of the numerous lymphoid cells they contain or to enlargement of the lymph spaces in their structure. The groin is commonly affected, both the femoral and inguinal regions participating in the trouble and frequently on both sides. It is extremely probable in these cases that the pelvic and other internal lymphatics are also enlarged, especially where the affection is symmetrical, and at first sight it would appear that removal of the groin glands would give only temporary relief of the symptoms and be followed in a very short time by a return of the local trouble in its former severity. Surgical interference, however, yields more favorable results than this. That treatment is urgently needed in many cases is seen by the number of patients who come to our wards and by the severity of the local symptoms. One of the cases related above is a good example of this. As swelling occurs at periodical intervals, the sense of weight and fulness increases, pain, weariness and lassitude are complained of, with reflex irritation of all the pelvic organs, rendering the patient's life a misery to him. The fever, too, is severe and quite incapacitates him in his work, sometimes each attack lasting as long as ten days. A successful operation means much to the patient, and while it cannot be said to cure the general disease, it takes away completely his local trouble. It must be remembered, too, that these local manifestations take years to develop. The surgeon in India is, of course, confronted with the difficulty of tracing the subsequent histories of many of his patients and this may detract from the value of individual accounts of cases; but so far as it has been possible, to trace them patients are quite satisfied with the treatment and its subsequent result. Local recurrence, too, is practically unknown.

The wounds caused by complete removal of filarial glandular enlargement and lymphangiectasis have always been looked upon here as in no way differing from ordinary surgical wounds, and no case so far has occurred to induce us to look upon them in any other way. Careful dissection is naturally required, but owing to the small area involved, one pair of hands suffices to carry out the necessary steps of the operation and external contamination is reduced to a minimum. For this reason we look upon these cases as peculiarly suited to operative measures. Considering the comparative simplicity of the measures and their results as detailed above, I would not have thought it necessary to write on this form of local consequences of filarial disease had not very different results been obtained in Bombay following these operations. I am not aware that any elaborate statistics have been compiled on this individual subject, but the fact is we in Madras have not thought it necessary. We have looked upon all local filarial manifestations as being subject to ordinary surgical considerations when the question of operation was suggested by the arrival of a patient exhibiting them.

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CASE OF HYDATIDIFORM DEGENERATION OF THE PLACENTA.

By Ratan Shaw T. Nariman, M.D., F.R.C.P., F.R.C.S.
Honorary Surgeon to the Parsi Lying-in Hospital, Bombay.

A Parsi multipara, aged 26, and in the eighth month of her tenth pregnancy, had "flooding" for nearly five hours before I was called in to see her. On my arrival, I found her somewhat collapsed, cold extremities and very feeble pulse, while a dirty cloth pad saturated with blood was tightly pressed into her vagina. I immediately gave her some hot milk with brandy in it to stimulate her. Enquiry elicited that she was 11 years married and had already had 9 children, of whom 8 died in infancy. She had had no miscarriages, and her "period," which was pretty regular, re-appeared four months after the birth of her last child and then stopped for two months, when the flow re-appeared and lasted for 24 hours only. Since then up to date (10th January 1898), she had 'flooded' some seven times, and had obtained relief at a charitable dispensary.

Though she presented the physical signs of advanced pregnancy, the uterus was smaller than the calculated period of gestation demanded, and a loud uterine souffle was heard, but the sound of the fœtal heart could not be distinguished, nor did bimanual palpation of the enlarged and elastic feeling lower the abdomen reveal anything like a fœtal shape.

As the patient was very low, I determined to immediately evacuate the contents of her uterus, but on passing my index and middle finger into the vagina, I felt something like large blood clots, which I removed and found to be a bunch of hydatids connected to each other by slender pedicles.

The os being sufficiently dilated to admit three fingers easily, its contents were evacuated with finger and curette, and though there was actual evidence of conception having occurred and gestation proceeded for a space, not a vestige of the embryo could be found. Its inner surface having been thoroughly curetted, the uterus was freely irrigated with very hot carbolised water. The pains and hæmorrhage immediately ceased and the uterus contracted firmly, but as the patient was very low and feeling chilly, she was given a hypodermic injection of ether and strychnia and hot bottles applied to her extremities.

The patient passed a quiet night, but next morning her temperature and pulse rising to 102°F and 140 per minute respectively, re-irrigation of the uterus brought away a small quantity of debris, after which she was prescribed a mixture of Quinine, Ergot, Strychnine and Digitalis, under which her temperature came down to 99·8°F and pulse to 116 by the evening, and on the third day she was perfectly free from febrile symptoms, though her condition was still very low; but contrary to all expectations, she made an uninterrupted though rather slow recovery.

Examination of the evacuated contents of the uterus showed degenerated blood clots intermingled with placental remains and *hundreds* of pedunculated cysts, varying in size from tiny hempseed to as large as almonds, but each containing a clear jelly-like fluid, and all clearing pointing to hydatidiform degeneration of the placenta with early death and complete disintegration and disappearance of the embryo.

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THIRD HEAD PRESENTATION WITH IMPACTION AT BRIM: UTERINE INERTIA, SYMPHYSEOTOMY: FORCEPS DELIVERY: RUPTURE OF CERVIX AND PERINÆUM: RECOVERY.

By Assistant Surgeon T. M. Shah, L.M.S.
Junagadh State Hospital.

On 3rd March 1898, a full term primipara, G. H.——, aged 30, was brought to hospital in an exhausted condition. Labor pains, which had set in 48 hours previously, had ceased entirely since morning, though the membranes had ruptured and the os remained partially dilated.

Vaginal examination disclosed a thin tough membranous and irritable os with the fœtal head impacted in the brim, with the face looking forward and towards the left oblinated foramen. The fœtal heart was audible; but the uterus, which was exhausted, had contracted and the waters run out.

The bowels having been partially evacuated by clyster and a few ounces of highly colored urine withdrawn by catheter, the symphisis pubis had to be subcutaneously divided by bistoury, introduced from just above the clitoris, to get more room at the brim. Repeated intermittent forcible traction with the long axis forceps succeeded in removing a full grown still-born male child; but the difficulty of delivery being enhanced by the fœtal face looking forward and refusing to be turned towards the sacrum, the right side of the cervix was lacerated and the perineum gave way during the extrusion. Efforts to resuscitate the child proved futile, and as the uterine inertia was complete, the placenta had to be drawn out.

After evacuation of its contents the uterus contracted firmly and the perineal bleeding was checked by pressure.

The following day iodoform and carbolic oil were applied to the tears after douching with Condy's fluid, and the patient did exceedingly well till evening, when her

temperature rose to 100°F. and she complained of pain and swelling over the pubis, hypogastrium and in her thighs. By next day the pubic swelling was less, but the pain continued, and she was unable to move her lower limbs; while her temperature rose to 103°F., her pulse to 120, she vomited twice and complained of spasms and insomnia for which she was given quinine, chloral and bromide, while the antiseptic douches and fomentations were continued and diaphoretic mixture given during pyrexia.

The pains and swellings subsided by the ninth day; the patient began to improve steadily, and in the course of a fortnight regained the use of her lower limbs, whose temporary paralysis was probably due to continued pressure on the sacral nerves by the labor being delayed by uterine inertia taking place in a patient whose first conception occurred at a period of life when the passages were not sufficiently yielding to secure speedy or easy delivery of a large-sized full term foetus.

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A CASE OF SNAKE-BITE: QUICK RECOVERY.

BY ASSISTANT SURGEON GHULAM ALI, L M S.
In medical charge, Imperial Service Troops Hospital, Patiala State.

RAM CHANDAN, *æt.* 25, a grass-cutter belonging to the Rajender Lancers, had barely left the cavalry lines at 6 A.M. on 20th June 1898, when he was bitten on the left heel—just above the posterior bulging of the os calcis—by a fairly large-sized Echis Carnata (the *karundia* of the Punjab or Uffa-i of Persia) that lay esconced in the grass.

The snake was promptly captured and its victim hurried by his comrades to the State Hospital, where I saw him, at 6-25 A.M., with his body bathed in a cold sweat, his feeble pulse was 52, and his labored respiration 21 per minute. He was in an extremely exhausted and sinking condition, while he lay on his back with half-closed eyes, whose cornea were moderately congested and their pupils fixed and slightly dilated.

I applied a Reliance tourniquet tightly round the leg, a little above the ankle joint, but as a fire was not just then available wherewith to cauterise the wounds, which were bleeding somewhat and as the tissues immediately under the higher of the two punctures was deeply ecchymosed, I carried an incision to a little to the outside of either bite down to the tendo achilles and completely removed the integument and soft tissues involved in the bites, rubbed the new wound freely with potassium permanganate crystals, after which I injected 1/40th grain of strychnine nitrate, in aqueous solution, into the skin over his cardiac region as well as gave him a draught containing brandy ℥j and liquor ammon. acet. ℥ij

The strychnine injection was repeated 15 minutes later, but the tourniquet was kept *in situ*. A fire being procured later on, the wound was seared to charring with live charcoal and the skin on either side of it subcutaneously injected with 2 grains of permanganate of potash.

To maintain his strength the patient was fed with iced milk, which he vomitted up at 7-30 A.M.; 15 minutes later a third injection of 1/40 grain strychnine nitrate was given and repeated at 10 A.M. and 1 P.M., making a total of 1/8 grain of strychnine.

As the patient complained of pain and discomfort in the foot, which had become cold and swollen and its toes blue by the stagnation of blood brought about by the ligature, the tourniquet was released at 8-30 A.M., when he was ordered brandy ℥iv, Liq. Ammon. Acet. ℥ij, and Aqua Cajputi ℥i every three hours (*four doses only*) and fed on iced milk till 6 P.M., when the pupils becoming normal, the congestion of the conjunctivæ disappeared and the pulse rose to 78 and the temperature to 100·6°F.

By next morning the patient had quite recovered from the effects of snake-bite, and is now under treatment for the surgical wound made on his leg.

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EPILEPSIA GRAVIOR: ITS TREATMENT AND CURE.

BY ASHUTOSH BANDROPADHIA, V.L.M.S.,
In medical charge, Babu Bachu Lal's Charitable Dispensary, Entally, Suburban Calcutta.

SHIBOO, a well built, stout, strong Hindu male, *æt.* about 48, who had for the past three years been subject to epileptic fits which recurred at intervals of two to three months and were usually preceded by severe headache, was, on 23rd January 1898, brought for treatment to this dispensary, where in my presence one of his attacks seized him. He foamed at the mouth and his tongue protruding through his clenched teeth was so severely bitten that it bled profusely. His eyes were open but the eyeballs rolled fearfully in all directions, while his pupils were widely dilated and his head was slightly turned towards his shoulder and fixed in that position. Pulse feeble but regular. He urinated involuntarily in a fairly broad stream. The fit lasted for fully 25 minutes, during which the rigidity of the muscles was of atonic character.

There was no history of heredity or syphilis, and the patient said that immediately before a fit he felt a sensation of chilliness rising up from the middle toe of his left foot—Aura Epileptica, probably—so I put him on

R	Quiniæ Sulph.	...	... grs. vi.
	Acid Nit. Mur. Dil	...	... ♏ xv.
	Tinct. Belladon	...	... ℥j.
	Pot. Bromid	...	... grs. xxx.
	Lq. Arsenic	...	... ♏ xv.
	Aquæ Camph.	...	ad ℥vj.
	Ft. mist. ℥i t. d.		

and advised him to apply equal parts of glycerine and almond oil to the anterior fontanelles before and after bathing.

During the next eleven days he had but two attacks, which were less severe, and on the thirteenth day I gave him an iron ring which tightly fitted the middle toe from which the Aura Epileptica rose.

On the seventeenth day the man had a rather mild attack, but as the Aura Epileptica had shifted to the second toe, I I ringed that toe also and the patient did well till the twentieth day, when he had a very mild attack and complained that the Aura Epileptica had travelled to his great toe; so I ordered *all* the toes of both feet to be ringed. From that day to the present time (June 1898) he has had no fits and the medicine was reduced to twice daily till the 5th March, when he was discharged cured.

THE

Indian Medical Record.

16th July 1898.

ANNUAL REPORT OF THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA.

II.

Enteric Fever.

The Results of the Experiments on Boiling the Water and adding Permanganate of Potassium.

In the course of his remarks on the "Principal Diseases," the Sanitary Commissioner says, page 23 of the Report under review:—"In the matter of enteric fever the differentiation of the bacillus and the treatment of the disease by enteric serum, the diagnosis of the fever by the patient's serum-reaction to a true cultivation of the specific bacillus, preventive inoculation or vaccination, and the question as to how wide may be the dissemination of the enteric bacillus in nature, continue to be the chief topics of interest."

After this preamble, it is disappointing to find, on further perusal, that there is absolutely no evidence whatever of even the smallest amount of interest having been taken in any of these topics, as far at least as is shown by any light having been thrown upon them by workers in India.

It is quite possible that readers of the Report, not versed in the conditions which prevail in India, might be misled, by the above quotation, into imagining that the topics referred to had a living and practical interest in this country; this is not the case, the interest to which the Sanitary Commissioner alludes is altogether a parasitic one, nourished by the fruit of other's labor, and having no healthy independent growth of its own.

Owing to the dearth of any information to be derived from Indian experience, the Sanitary Commissioner is forced to go to European authorities for all the recent developments in the study of enteric fever, and he is kind enough to furnish us with a brief summary under the headings, Water; Air; Dust; Hardiness; Bread; Mouth; Raw Vegetables; Contagion; Sewergas; Soil, Varying Virulence; Indians Abroad; Urine; Blood, etc. It is questionable, however, if the little attempt to enlighten us, which custom has somewhat staled, is successful.

From this congeries of facts borrowed haphazard up and down the medical journals of Europe, we gladly turn to page 27, where we find that "great use has been made in India during 1896 of boiling, and of the addition of potassium permanganate, alum, etc., for the purification of drinking water."

Here then at last we have some gleanings from the large field of Indian experience to which we turn, with not unnatural eagerness, expectant of some tangible results.

In this expectation we are not disappointed, for the results are there, tangible enough and fairly obvious; yet it is a curious thing that their real meaning appears to have hitherto escaped notice.

This is readily explained by the fact that they are not exactly what was expected; very much the reverse indeed; they are far from coming up to the Sanitary Commissioner's expectations; for he says:—"Not only are the reports of medical officers somewhat disappointing, but the reduction in the admission rate of India for enteric fever was only 0·8 per 1,000 of strength, 75 cases fewer." Further, he says, there is nothing to show "why the Punjab Command should have had a great reduction, the Bombay and Madras Commands a great increase, and the Bengal Command the slightest possible decrease."

He gives the following figures as the number of admission per 1,000 for enteric fever in each of the Commands for the two years 1895 and 1896:—

	Admissions per 1,000.	
	1895.	1896.
Bengal	30 3	30 2
Punjab	39 0	25·2
Madras	12 7	16 8
Bombay	16 8	25 5

It is evident then, from his point of view, that the experiment has been unsuccessful, perhaps even worse than unsuccessful; for according to him the results are inexplicable; that an official of the importance of the Sanitary Commissioner should be puzzled in this way is of course very wrong, and we can trace a very natural vein of annoyance in his reference to the disappointing nature of the medical officers' reports.

These medical officers evidently did not play the game, and the results would not work out to suit pre-conceived ideas, and the whole thing was most annoying to a poor bewildered Sanitary Commissioner.

And so the Government of India would appear to have drawn another blank, one more added to an already over grown series, in their sanitary lotteries.

We don't exactly know how these little adventures into the realms of sanitation or etiology, to which we apply the term sanitary lotteries, come about, but we have our own ideas on the subject, to which the reader is welcome.

Some gentleman, we will imagine, has a fad, many of course have fads, and we have reason to believe that in India, this form of insanity is more rampant than elsewhere, for the excellent reasons either that no means exist for putting impractical ideas to the test of experiment, that the gentle warmth of the climate renders the proceeding too irksome, that it is too troublesome, or finally, that it is not worth while.

Now most of these fads are quite harmless, but the imaginary gentleman, to whom we have alluded, has influence, he has a position, he is very high up the official ladder in his own particular branch; therefore, he can make himself heard with good effect.

His particular fad finds favor with those whose daily routine it is to issue orders; it is cheap, a great recommendation; further, it gives no trouble to any one at head-quarters, it merely inflicts a considerable amount of irksome work upon sundry subordinates grilling in the plains, and augments the number of aggravating reports they are called upon to make.

There are ill excellent qualities in a fad, and are quite sufficient to get it accepted.

If the idea is successful, its author gets the credit of being far sighted and energetic, and perhaps something more substantial, while the Government is pleased at having shown itself up-to-date in scientific research, without any undue expenditure. If, on the other hand, it fails—well, no harm is done—it only makes the subordinates a little more dissatisfied and gives them an extra grumble about the unprofitable nature of the extra work that is thrust upon them, increases their disgust with reports in general, aggravates the tendency to scamp work, and adds an iota to the general feelings of contempt with which it is their custom to survey the proceedings of their rulers.

The Government plunge a little too much in these matters, and moreover plunge in the worst possible way; they are ill-advised, they know but one or two horses in the race; yet they think it good enough to put all this money (metaphorically of course) on them. When they do not win, bewilderment results.

Now it is very possible that boiled water is a good horse in the enteric fever stakes, but of permanganate of potassium we know nothing, and should have expected less, from what we have heard of its other performances.

The Government backed them, and they have both failed to win. Our Sanitary Commissioner does not know what to make of it, but let him not be despondent, the results are not so barren after all, if he will but bring himself to look upon them in the right way.

Few, we think, will dissent from the proposition that, if enteric fever were a fixed factor, not liable to fluctuations and variations, and if it were an established fact based upon sound and reliable data that the disease was usually caused by the ordinary water supply, then we might confidently anticipate that a marked alteration in the incidence of the disease would follow upon a vital change in the character of the water supply.

The conditions of the proposition were however not ful filled. Enteric fever varies considerably from year to year under the influence of conditions which are either imperfectly understood, or are not understood at all; and the result of the experiment we are discussing is to show that the influence exerted upon it by the ordinary water supply is so slight, that the vital change brought about in its condition produced no results that could be detected, amidst the other unknown quantities by which the incidence of the disease is controlled.

The fact is that the experiments carried out on the theory that the water supply was the chief cause of the enteric fever, proved as conclusively as possible that the theory itself was in fault, and that the influence of the ordinary drinking water upon the causation of enteric fever in India is either very small, or *nil*, and that all the trouble of boiling the water and adding permanganate of potassium was merely a wild goose chase.

Now this has not been noticed before, and it has entirely escaped the attention of the Sanitary Commissioner, as all side effects invariably do escape the observer whose attention is concentrated on a single point, or issue. This conclusion is however none the less obvious, none the less clear, none the less irrefutable, and none the less important; and if it were only grasped, the experiment would not be so barren of results after all.

A very few figures will make this plain to anyone. We have seen that, according to the Sanitary Commissioner's figures, boiling the water and adding permanganate of potassium was followed by a *large increase* of enteric fever in the Madras and Bombay Commands, truly a most untoward result! So startling in fact, that the Sanitary Commissioner was quite unable to face it; there is no way of avoiding it; no means of explaining it away.

It stands out so clearly and strikingly that we will not further notice it except to remark, that it is difficult, if not impossible, to believe that such could have been the case, had the drinking water really been the factor in fault—otherwise the sooner the drinking water is let alone the better.

Some comfort is, however, reaped from the fact that, in the whole of India, there was a decrease of 8·0 admissions per 1,000 equivalent to 75 cases, and that in the Punjab there was actually the large decrease of 13·1 admissions per 1,000 of strength. How is this large decrease to be accounted for?

It is only too evident from his remarks, that the Sanitary Commissioner accepts this large reduction as the measure of the benefit to be derived from the adopted treatment of the drinking water; he says, "and no difference in the carrying out of the prophylaxis, such as earlier beginning or greater care can be made out from the reports as a reason why the Punjab should have a great reduction, the Bombay and Madras Commands a great increase, and the Bengal Command the slightest possible decrease."

From this sentence we conclude that the Sanitary Commissioner took up the position, that the Punjab decrease was due to the treatment of the water, and exhausted his ingenuity, without success, in endeavouring to discover some flaw or difference in the way the experiments had been made in Madras and Bombay to account for the strange discrepancy. Failing this he has to fall back on a querulous complaint of the disappointing character of the medical officer's reports.

Let us now tackle the Sanitary Commissioner by the evidence of his own figures and see if there are any grounds for attributing the Punjab decrease to the vital change in the water supply in 1896.

The Sanitary Commissioner is content in making his comparison to take the two years 1895 and 1896—this happy-go lucky method of dealing with figures does not however satisfy us; it is always a dangerous thing to compare isolated facts of this kind, and by doing so this official has fallen into a very pretty trap.

In making a comparison of this kind nothing but a series of years can give information of any value.

Now in the following table will be found the number of admissions for enteric fever per 1,000 of strength in the army in India, and in the Punjab Command for five years. The years 1891 to 1894 inclusive are omitted, simply because in these years the Sanitary Commissioner did not

look upon the Punjab as a separate Command, and so its figures are not readily available :—

	Admissions for Enteric per 1,000 of strength.	
	India.	Punjab.
1888	18·6	10 6
1889	22·9	27·9
1890	18·5	20·4
1895	26·8	39 0
1896	25·5	25·9
Average ...	21·26	24·76

These few figures exhibit in all its simplicity and nakedness the little trap into which the Sanitary Commissioner was led to his downfall.

The first thing that will strike anyone looking carefully at the table, is that both in the whole of India and in the Punjab, the year 1895 is remarkable for having had the largest number of admissions for enteric fever in the series. Yet it is this exceptional year that the Sanitary Commissioner takes as his standard of comparison and from which he deduces the momentous fact that there was a large decrease in enteric fever in the Punjab.

There is however no reason why he should have compared the year 1896 with the year 1895 rather than with any other year, and it is evident that had he compared it with 1890 or with 1888, he would have been forced to alter his conclusions and to admit an increase instead of a decrease.

The fact remains that the amount of enteric fever in India and in the Punjab in 1896 was above the average, and the fact that it was less than in 1895, is merely an accident, due entirely to the abnormality of the year 1895, and not to the changes made in the water supply in 1896.

From the table it also appears that enteric in the Punjab is liable to considerable fluctuation from year to year, this point has not been given its due importance.

We cannot congratulate the Sanitary Commissioner on his methods in this case, nor have we the least confidence in his judgment when he says :—"It is to be hoped, however, that future results will be more striking than those of 1896." The results of 1896 are quite striking enough for us, they prove conclusively that the part played by the ordinary drinking supplies in the causation of enteric fever in India is very small ; and that many medical officers are of this opinion, is borne out by their individual reports, to which we may refer the reader.

THE PRESENT POSITION OF THE THERAPIE OF TRAUMATIC TETANUS.*

II.

Let us now turn to the "Indicatio Causalis :" the first object of our therapeutic measures is to *destroy the exciting cause of the infection locally.* We know that the tetanus bacillus remains fixed at the primary seat of its introduction, and but rarely invades, or is borne into the interior of the body. From this situation it sends forth its alarming heralds in the form of toxins to the most distant parts. It is therefore of the utmost importance to find and destroy this lair, in order to prevent the further spread of the toxin.

If there are no complications, the first thing that it is necessary to do is to enlarge and thoroughly disinfect the primary wound which may be considered to be the gate by which the infection enters.

This disinfection is of the utmost importance ; because it has been ascertained that nothing is so favorable to the development of tetanus as the association of other micro-organisms (Kitasato).

What influence have our usual methods of disinfection upon the tetanus bacillus ? According to Kitasato, corrosive sublimate solution, 1 in 1,000, is of little use, but if hydrochloric acid or tartaric acid be added, tetanus spores are destroyed in 30 minutes. The formula of Laplace is much used ; corrosive sublimate 1·0, tartaric acid 5·0, aquam add 1,000, or 0·5 hydrochloric acid may be added to a 1 per 1,000 solution of corrosive sublimate.

Kitasato found a 1·5 per cent. solution of carbolic acid more effective than corrosive sublimate 1 in 1,000. This is strongly antitoxic and neutralises tetanus toxin within an hour. A good preparation is that warmly recommended by Sahli, tincture of iodine added to a 1 to 2 per cent. solution of trichloride of iodine, this is not only antiseptic, but also antitoxic. According to Kitasato, iodoform and subacetate of lead are useless.

Should more energetic measures be necessary for the destruction of the poison, the next step will be the destruction of the wound with the cautery In carrying out this proceeding, Rose recommends that all the recesses of the enlarged wound should be carefully cleaned out with small cotton wool swabs, soaked in chloroform, then the wound should be destroyed with the thermo cautery and finally a caustic applied.

As a further measure, extirpation of the wound may be indicated. This can only be successful when the bacilli can be totally destroyed at the seat of entrance, and when, in addition, sufficient strength remains in the system to overcome the toxin that has already been absorbed, either alone, or with our assistance.

As a last resort, in many cases amputation has to be performed. According to Rose, there are 42 recorded cases of recovery under this treatment. He himself has only seen two cases of recovery in the Bethanian Hospital after amputation : once in an extensive burn of the hand, where amputation at the wrist doubtless preserved life ; in the other case, the fingers were amputated ; all the other cases died.

Still he recommends amputation ; for he says : "Now-a-days we can clearly see that amongst all the methods of

* By Von. Dr. A. Heddaeus Heidelberg. Translated from Munchener Medicinische Wochenschrift.

treating tetanus, amputation, although the most mutilating, is also the most rational, since in suitable cases there is no better way of thoroughly exterminating the bacillus, which is the most important indication."

In general, amputation will naturally be reserved for those cases in which thorough disinfection is impossible in consequence of the complicated or soiled condition of the wound. Even in these it should not be undertaken until the symptoms of tetanic infection have appeared.

Unfortunately up to the present we have no certain indication of the incubation stage of tetanus, for such strongly suspected cases a prophylactic serum therapie, as in diphtheria, is of great importance.

We will return to this question later on. The second task that the Causal Indication deals with, is *the elimination of the poison from the body*; it is here concerned with the methods of cure by elimination. The question that arises is—Can the tetanus poison, as a rule, be excreted by the organs of the body?

The result of researches undertaken by BRUNNER, KARTULIS and others to answer this question, is to show that the tetanus poison is present in the blood, and that it can be excreted by the kidneys, saliva and bronchial secretion. It it is true that they found that inoculation with urine only gave positive results when the infection was a severe one. A certain precaution is necessary concerning these urine inoculations, in so far as the mouse, the animal usually employed, can only be injected with a very small dose; for with larger doses, even when healthy urine is used, the animal dies with tetanic spasms.

Success has not followed the efforts to demonstrate the tetanus poison in the perspiration. We learn from these researches that we are certainly justified in looking to diuresis to eliminate the poison. Still we cannot overlook the part that is played by diaphoresis; for, although the poison has not been found in the perspiration, empiricism has firmly established the beneficial nature of profuse perspiration in tetanus. Besides nature is especially mindful of this method of elimination, for there is hardly any other form of sickness in which we find such profuse perspiration, as in tetanus. The patients lie for hours and days actually bathed in perspiration. This has frequently been considered as a result of the permanent contraction of the muscles. It is not, however, improbable that there is, in addition to this, some action of a toxic nature upon the perspiration centre (SCHWEISSCENTREN).

In practice we have in one of our cases got good results from prolonged hot baths, 104°F.

The patient felt comfortable in the bath and afterwards there was a temporary diminution in the spasms of the muscles. In using baths it is well to take care that the patient is under constant supervision, and especially in the stage of increased reflex excitability, special precautions must be taken.

A case is reported by WILMS, where the patient was drowned in the bath, in consequence of a sudden and severe attack of convulsions.

We now come to the third task: the rendering inert, or *neutralising the poison already in the body*.

Before entering into the details of the serum therapie, we will notice briefly some chemical methods which also, by means of injection, endeavour to bring about the destruction of the poison. In this first rank of these stands carbolic acid. IPRAMA reports one case of tetanus in which tetanus appeared on the 12th day after a wound of the great toe, which had been treated with cobweb, urine, lime, and pig's bladder.

On the 15th day the toe was amputated, and three injections of carbolic acid after BACCELLI'S method were given daily; after 16 days the patient was cured.

A second case is related by PIKE. On the 14th day after a lacerated wound of the great toe, tetanus appeared; the toe was amputated, there was no improvement with chloral and bromide, so in place of narcotics, a strychnine mixture was given with injections of a 2 per cent. solution of carbolic acid every six hours; the patient improved and recovered. A third case of recovery is mentioned by OSCHEROWSKI; tetanus set in on the 6th day after a shot wound of the foot, from that time chloral, opium and morphia were given without result. From the 20th day injections of carbolic acid were given every two to three hours. After two days the patient improved and recovered. He was discharged on the 35th day after receiving the wound; 28 injections of carbolic acid were given. Besides these there are two or three other cases of recovery after injections of carbolic acid recorded.

We have gone somewhat minutely into these questions, because ROSE has denied the good results of the serum treatment in several cases; for he says, it is possible that the good results obtained in these cases was due to the carbolic acid contained in this serum. It is naturally difficult to prove this. We must always remember that the carbolic acid treatment has had some favorable results. Still the first two cases mentioned were mild, but the last was middling severe.

Amongst other drugs that have been injected must be mentioned permanganate of potassium and corrosive sublimate, both in a one per mille solution and combined.

In a case of TROFINOW'S, where the circulatory system was severely affected, the tendency to hæmorrhage, disappeared under this treatment. The case is, however, not clear; since, besides morphia, chloral and hot baths were given. Still it is said that, when the injections were stopped, the former symptoms re-appeared, which appears to show that they had a beneficial effect.

By far the highest interest of these questions lies in the subject of serum therapie, the grounds for this method of treatment, and the results of experimental investigations, are laid down by BEHRING, KITASATO, and KNOOP in different works, and KNOOP has in his thesis (1895) defined the limit beyond which a cure cannot be expected from serum therapie.

He discusses the prospects held out to man from the results of experiments performed on animals. He asks—"What can we infer, from the positive results already obtained, concerning the possibility of cure, and the applicability of the treatment to man; and what are the prospects of bettering the results?"

He concludes that "we are justified in the expectation that the possibility of cure in man will not be less than in animals, success has indeed already been gained, for at least some cases of severe tetanus have been saved by the energetic application of bacillus curative serum.

Since that time the statistics of cases treated with curative serum has quickly increased; so that at present the grand total of published cases that have been treated with some form of tetanus serum exceeds 100.

The amount of interest that has been taken in this question is well illustrated by the fact that we can already count nine different tetanus antitoxins. Besides those of BEHRING and TIZZONI-CATTANI which are the best known, we have those of ROUX and VAILLARD, of PASTEUR, of BABES (KITASATO), of TAVEL, of DUNCAN and FLOCKART, of PARKE DAVIS and Co., in Detroit, and lastly that of the British Institute of Preventive Medicine.

The preparations, which are specially interesting to us, are those of TIZZONI and BEHRING, because we have more experience of them and because they were the first accessible to us.

Last year ENGELMANN undertook a comparison of the results obtained up to date with these antitoxins, including three cases of his own, he found 36 cases treated with TIZZONI's and 18 with BEHRING's serum.

To the former we have been able to add 2 from the literature of the subject, and to the latter one earlier case, and 7 new ones that appeared last year, making 10 altogether. This makes the grand total 38 with TIZZONI's and 28 with BEHRING's serum.

According to ENGELMANN the results obtained with TIZZONI's preparation are very satisfactory; for the particulars we must refer to the original article (this Journal No. 32, 1897).

ROSE's criticism of TIZZONI's preparation is not so favorable as ENGELMANN's, in the first place he finds fault with him for employing the serum of the dog, since it is well known that the dog is only slightly susceptible to tetanus; then the 9 cases (he refers to the first publication of 2 cases treated by TIZZONI's method) were so mild that they could have recovered spontaneously. With reference to the newer horse-serum, ROSE points out, that, according to investigations carried out in KOCH's institute, it does not possess the immunising power of $\frac{1}{100}$ mill and especially that it is three times weaker than the BEHRING serum of $\frac{1}{3}$ mill. Nevertheless, the further observations and results of known cases do not appear to bear witness against its favorable influence, and two of ENGELMANN's own cases, which he has recorded, show that the serum undoubtedly exercised a beneficial action. Further, in the British Institute of Preventive Medicine, an analysis of the effects of the various curative serums was made by Dr. KANTHACK, which showed that in the cases of tetanus treated with TIZZONI's serum, the mortality was only 25·6 per cent., while it was 60 per cent in the cases not treated with serum, and about 60 per cent. in cases not treated with ROUX's serum.

We give below the two cases treated by TIZZONI's serum which were not included in ENGELMANN's table.

Concerning BEHRING's serum, it is also necessary to distinguish between an earlier and a later preparation.

Of the 18 cases given by ENGELMANN, 13 were treated with the early preparation (blood serum from the rabbit, sheep, and horse), 5 with the new serum, No. 100. Of the first, 6 died while 7 were cured. Of the last one died, which was only injected for the first time five hours before death; the others recovered In the first mentioned cases, it appears that for a good result, everything depends upon the immunising strength of the serum, $\frac{1}{4}$ mill is of little value, $\frac{1}{10}$ mill has a decided action, but even with it large doses must be given.

BEHRING's first serum was therefore not strong enough, and was administered in too small doses.

The new serum No. 100 must also be given in large doses. In a case of ENGELMANN 20g. to 2·5 was given on a single dose, and entirely free from injurious effects.

ENGELMANN sums up the results of his experience with TIZZONI's and BEHRING's serums in the following propositions:—

1. Both TIZZONI's and BEHRING's tetanus antitoxin exercised a favorable influence on the course of the disease.

(TABLE I.—TIZZONI'S SERUM.)

No	Author.	Onset of disease.	Incubation.	Therapie and effect.	Other effects.	Result
1	Firth, *Brit Med Jour.*, 1895.	Tet Neonat 8 days after birth Tet. Asphyxia on drinking.	...	At once chloral and bromide every 4 hours. On the 8th day after onset 0·4 A.T. four times	..	Death
2	Derbyshire, *Lancet*, 1897.	Tet. Traumat. Youth of 13 years Nail wound in foot. After 14 days (*a*) trismus; (*b*) spasm of arm.	14	From (*a*) bromide and chloral, three times daily. (*b*) A.T. 1 35; worse Chloral every four hours; better after four doses	....	Recovery.

2. They are harmless even when given in large doses.

3. It is therefore recommended to administer them as early as possible in sufficiently large doses according to the severity of the symptoms.

4. No distinct difference can be detected in their effects.

Let us examine the 8 cases, not mentioned by ENGELMANN, which were treated with BEHRING'S serum. (Table II).

whilst other coincident and after-effects have not been published.

In one of our cases we observed an exanthem after subcutaneous injection.

A further case reported by WEISCHER from the Leichtenster Clinic must be counted very severe, as it began on the fourth day; after an injection of 5 g. A. No. 100 given on the 8th day, the symptoms became less severe,

TABLE II.—BEHRING'S SERUM.

No.	Author.	Onset of Disease.	Incubation.	Therapie and Effect.	Other Effects.	Result.
1	Blumenthal, *Zeitschr. f. Klin. Med. Bd.* 30.	Tet. Puerperalis ...	...	Dried serum ... Strength $\frac{1}{1,000,000}$	.....	Death.
2	Bokay ...	Tet. Traumat ... (1) Child 5 years old, wound of hand,	...	In 6 days 80 ccm. A ...	... ..	Recovery.
3		(2) Infant 4 years old. Infection through naval	...	5g. No. 100. Treatment well-borne. Result not yet stated.		.....
4	Asam, *Munch. Med. Wochenschr*, 1897, p. 32	Tet. Traumat ... Child 11 years old, wound of foot, after three weeks. Tet. quickly developed.	21	Onset, chloral and morphia, then A.B. 5g. in 50H_2O in the great saph. vein. Next day diminished spasm and trismus. Steady recovery.	Urticaria rub. with bullæ of face, back and thighs.	Recovery.
5	Weischer, *Munch. Med. Wochenschr*, 1897, p. 46.	Tet Traumat ... (1) Male, 29 years old, lacerated wound right ring finger, after 4 days trismus followed by general convulsions.	4	8th day after onset 5g. No. 100 in 4 places. Worse for 2 days; after that considerable relief and steady recovery.	.....	Recovery.
6	.....	(2) Tet. Rheumat. ... Male, 37 years old, after a thorough wetting trismus and tet.	...	17th day, after onset 5 g. No. 100 in 4 places, from following day steady diminuation of spasm.	. ..	Recovery.
7	Rose, *Deutsche Zeitschr. f. Chir*, Bd. 46.	(1) Boy, 10 years old, cause unknown.	?	4 days after onset 4·0 No 100 intra venous, the following day 1·0 subcut. No improvement.	Measles-like rash appeared on 17th day.	Recovery.
8	..	(2) Tet. Neonatorum ... Infant 6 days old. Navel infection.	?	On 7th day 5g. No 100, subcut in different places (within 36 hours). No effect, died after 2 hours.	.....	Death.

We note that one died which was treated with a very weak serum $\frac{1}{1,000,000}$; this was a case of puerperal tetanus. A second reported by ROSE also proved obstinate to early injections.

Five cases recovered; in one the result is not yet given. This was a suckling infant 4 months old, who contracted tetanus after injection of the navel and received 5g. No. 100. He stood the treatment well. In another case, reported by the same author, a girl of 5 years of age was given in 6 days 80 cc.m. A., and also 10g. dried preparation. One case (Asam) first developed three weeks after a wound of the foot, and immediately assumed a serious character; in it injections of 5g. No. 100 were given in the saphena magna vein. On the following day the spasm and trismus had diminished and the case gradually recovered. In this case, the serum produced an urticaria rubra et bullosa of the face, back and thighs.

Slight eczema has also been observed by others after serum injection. In one case of ENGELMANN, treated with BEHRING'S serum, there was a papular exanthem, and after a second, two days later, undoubted relief was felt. A second of WEISCHER'S cases was also cured; in this case, the way the poison entered the body was unknown, wherefore he distinguishes it as rheumatic tetanus; it cannot be accepted as strong evidence of the beneficial action of the antitoxin.

As for the first of ROSE'S cases, an idiopathic case, without local site of infection, it cannot be fairly compared with traumatic tetanus.

No conclusions can be drawn from the fact that the antitoxin was ineffectual in these obscure cases, besides the case recovered, and it would not be possible to prove conclusively that the antitoxin had had no beneficial action. The second case died so quickly (two hours after the infection) that it is clear that so late nothing could have been expected from the injection.

In an impartial view, these two cases cannot be considered to prove anything unfavorable to the serum treatment.

Of our cases which were treated with BEHRING'S serum, the two first were injected with the dried preparation.

(5 g=500 I.-E., in 45 cc.m. of water) the third with the new fluid that was received in the following doses from the Hochster Chemical Works :—

A single dose, 2 small flask 25 cc.m., 10 fold=500 Tet. I.-E.; in adults and horses they should be injected under the skin immediately decided signs of tetanus appear. In children the contents of only one flask (25 cc.m. =250 Tet. I.-E.) should be given. On the following days the injection of one-half dose is recommended, even though the patient is better.

The following is the first case that was treated with BEHRING'S antitoxin :—

"(1). FLORIAN V., 43 years old, agriculturist, on the 11th October 1897, while trying to restrain the frightened horses of his wagon, was thrown down and dragged by the reins about 50 yards. He received several wounds : one on the head, one on the right elbow, a fractured rib and a contusion on the inner side of the right thigh.

The open wounds on the head and elbow were at once cleaned and dressed by a surgeon. Until the 20th of October he lay in bed and had but little pain.

On the morning of this day, the 9th after the accident, spasms of the right arm appeared suddenly, accompanied by severe pain. They came on about every five minutes and lasted with unchanged frequency until to-day, but with increased severity; five days ago, pus was squeezed out of the deep parts of the wound in the arm, while at first the secretion was altogether superficial. Since yesterday the patient has noticed that he could no longer open his mouth, and painful spasm of the muscles of the jaw has set in, which is permanent and not paroxysmal.

The surgeon, accordingly, sent the patient to the Clinic to-day.

Present condition.—25th October (the 14th day after the injury, and the 5th from the onset of tetanic symptoms). A strong, apparently healthy man. Expression of face fixed, like a laughing mask (risus sardonicus); the mouth is tightly shut, and the patient can only separate the teeth by a strong effort to the distance of 1 millimetre. Speech indistinct in consequence. No difficulty in swallowing or breathing. Fluid nourishment can be taken without much trouble and swallowed.

On the scalp, almost at the junction of the left parietal and occipital bones, there is a superficial abrasion, otherwise no wound of the head.

The right arm remains flexed to a right angle at the elbow joint, with the forearm pronated, the arm is strongly abducted and the forearm and hand lie against the body. The hand is slightly flexed at the wrist, the index finger is stretched out, the thumb completely flexed, and the other fingers bent.

All the muscles, as high as the deltoid, are in a condition of tonic spasm, and feel as hard as wood; touching the arm excites a paroxysmal convulsion, which causes the hand with the out-stretched fingers to be pressed so strongly against the body that the nails sink into the skin, which bears the marks of linear scratches. These paroxysms recur every couple of minutes and appear to be very painful, so that the patient sometimes screams loudly. On each occasion he is more or less generally convulsed, yet so far it has not been definitely noticed that the muscles of the body take part in the convulsion.

On the inner side of the right elbow joint, close to the internal epicondyle of the humerus, there is a wound 1·5cm. long, by 0·5 broad, which is granulating at the bottom and discharging slightly ; the wound appears healthy. No sinus leading to the deeper tissues can be made out with the probe ; the neighbourhood is slightly red and inflamed, but there is no sign of an abscess forming or of retained secretion.

The abduction of the arm necessary for the examination of the wound is obtained with difficulty, and only by very cautious and slow elevation. As soon as a spasm occurs, the arm returns to the position already described with irresistable force.

The lungs and heart are normal ; the pulse somewhat quickened ; no alteration of the pulse during the spasm; abdominal organs not affected ; bowels confined ; urine clear, acid ; no albumen ; no sugar. Temperature 99 7°F.

Clinical diagnosis.—Traumatic tetanus, caused by a wound of the right arm. Trismus.

One hour and a-half after admission the patient was given an injection of tetanus antitoxin (10 g. of the dried preparation=500 I. E, dissolved in 45 ccm. of warm water) the injection was given at 3 o'clock in the afternoon in the median vein of the left, the sound, arm. During the day there was no reaction.

The temperature rose to 100 7°F. Pulse 112

During the evening and night the paroxysms were very frequent and painful , an enema of chloral hydrate in mucilage was administered without much effect, and it was only towards morning that sleep was induced.

26th October.—This morning, about 18 hours after the antitoxin injection, decided improvement, paroxysms less frequent, about once every quarter of an hour with less pain.

Subjective symptoms more favorable Reflex excitability appears less. No marked change in the tonic spasm of the muscles of the arm Temperature 99 5°F.

Evening.—Patient worse , the spasms are again much more frequent and painful ; difficulty of swallowing for the first time ; breathing regular ; trismus unchanged , profuse perspiration. Tincture of opium given.

27th October.—Morning temperature 100 7°F., he feels well and the objective appearances are better. Locally there is no change , no other group of muscles affected. In the evening an enema of chloral hydrate was given, slept better; spasms less painful.

28th October.—Morning condition unchanged; got much worse in the afternoon, at each spasm a tendency to opisthotonous appeared, and spasm of the left leg ; in the evening there was also spasm of the right leg and of the muscles of the abdomen. The muscles referred to are stretched as hard as wood, and in the intervals between the paroxysms there is not complete relaxation ; severe pain. Opium and chloral given during the night ; he had five hours' unbroken sleep.

29th October.—In the morning paroxysms came on about every quarter of an hour, only they are short and there is but little pain, but still the other muscles of the body participate in them.

The muscles of the abdomen are stretched and tense. Towards evening another aggravation occurred. Spasm

in both legs well marked. After opium and chloral the patient slept the whole night.

30th October.—In the morning the patient was undoubtedly better, both subjectively and objectively. Afternoon another aggravation; more profuse perspiration; he takes his nourishment well; is very thirsty and drinks plenty of milk; bowels confined, moved by enema. Opium and chloral given at night.

31st October.—Better again this morning; aggravation towards evening. The reflex excitability is still so enhanced, that the patient, if touched, almost always has a tetanic spasm; noises, or the opening or shutting of the door, or the light of the lamp falling suddenly upon the patient are sufficient to start a paroxysm.

The perspiration has been most profuse during the last day, although the patient has not been extra warmly covered. Trismus unchanged; swallowing again easy; breathing normal; only slight stiffness during the night.

1st November.—Morning same condition. In the evening very severe and painful spasms, during which the patient screamed loudly from pain. Opium and chloral gave but little relief; almost no sleep.

2nd November.—On account of the increase in the symptoms the intravenous injection of antitoxin was repeated to-day at 1 P.M. (5 g. dried preparation in 30 com. of warm water); the preparation was sent to us direct by BEHRING.

Immediately after the injection there was half an hour without any paroxysm, and for the rest of the afternoon they were infrequent. The temperature rose in the night to 102·5°F. The pulse increased to 120 per minute. The night, on the whole, was much better than the previous one.

The persistent trismus was better in the evening and the patient himself remarked that he was again able to open his mouth.

3rd November.—Morning temperature 101·4°F.; fell during the day to 100·4°F.; the improvement to-day is striking and differs completely from the usual morning remission. The trismus is certainly waning; the patient can now open his mouth easily to a distance of 1·5 cm. and he can put out his tongue which before was impossible. The tonic spasm of the muscles of the abdomen and thighs is abating visibly; in the arm the signs are not so striking, but the patient can, of his own accord, lift the arm a little. The stiffness of the facial expression is disappearing; the movements of the body are perfectly free. Paroxysms of much diminished severity now occur about every 20 minutes.

In the evening they were again more frequent and more painful, so that chloral was again given.

4th November.—No apparent change; chloral given at night; temperature normal.

5th November.—Trismus still better; paroxysms now confined to the arm; they are not so frequent or painful as formerly and occur about every 10 minutes. Patient felt very tired to-day and slept well; chloral.

6th November.—He was given a hot bath at a temperature from 102·2°F to 104°F, in which he remained about one hour; after this he felt very well. He complained to-day of a very painful spot on the right elbow and a red swelling of the size of a pigeon's egg was discovered.

With great care, on account of the [illegible] which reflex spasms are excited by contact, and [illegible] ment of the arm, an incision was made under [illegible] narcosis, over this spot (between the epicondyloid [illegible] and the olecranon). No formed pus was evacuated, [illegible] only altered and discolored blood (cultivation with [illegible] was negative).

In the evening the spasms were more severe (about every quarter of an hour); chloral and opium.

7th November.—No fever; the patient, during the whole day, had tetanic spasms every half hour, which were limited to the arm and much less painful. Trismus disappearing steadily.

There was an aggravation towards evening; chloral and opium continued; profuse perspiration during the night.

8th November.—Prolonged bath; paroxysms less frequent (hourly); the arm is not so stiff and can be slightly abducted; the fingers can be straightened, but causes pain. He feels very well.

9th November.—The patient slept soundly during the night and feels very well. During the day there was not a single paroxysm.

The wound on the arm is granulating; swelling continues about the elbow.

10th November.—During the night the patient had much severe pain and frequent spasms in the right arm; had a bath; no paroxysm during the day, although there was permanent pain in the arm; no change noticed objectively. During the night there was again much pain but no spasm.

11th November.—Free from spasm all day; slight pain; severe pain in the evening; chloral and opium gave no relief. After a subcutaneous injection of morphine he felt better and got some sleep.

12th November.—Feels well; arm slightly painful; spasm of the muscles unchanged; still the spasm of the other affected muscles has completely disappeared.

14th November.—Rarely has pain in the arm; no tetanic spasm for the last four days; movement of the fingers better; active flexion and extension possible without much pain. Temperature normal the last 11 days.

15th November.—Muscular spasm limited to the arm; the deltoid is hard as though in strong contraction; also the biceps and the pectoral muscles. The patient can move the arm a hand's breadth from the body to-day.

16th November.—The movement in the shoulder joint is gradually getting stronger; the elbow joint is still motionless; massage and passive motion caused so much pain at first that they had to be stopped; only light rubbing can be borne.

19th November.—Bath; no marked change; patient got up for the first time to-day.

20th November.—Rubbing and gentle passive motion of the joint were borne to-day; flexion of the hand and fingers caused considerable pain, but extension is not so painful. Trismus completely gone.

22nd November.—The electric excitability of the affected muscles was tested by Professor HOFFMAN and found normal.

23rd November.—Energetic massage, and movement exercises caused severe pain to-day, which lasted all night; no

the patient, who had hitherto been feeling thankful for his recovery, felt much depressed.

17th November.—Massage and passive motion have been continued daily; there is a decided improvement in the movement of the arm. The patient was discharged to-day at his own request. The stiffness of the muscles of the arm is still marked, but this is all that remains of the tetanic condition."

(*To be continued.*)

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WHAT ARE THE PROSPECTS OF INDIAN GRADUATES IN MEDICINE?

In reality a dreary, weary, up-hill struggle with State-aided competition to fight against at every step and sudden State ukases that preserve official monopoly at the risk (should we say with the deliberate intention?) of depriving the non-official practitioner of his bread and starving his wife and helpless babes; but either from crass cussedness or with a view to canvassing for more students at the medical colleges the *Indian Medical Gazette* paints a very glowing picture, *all coleur de rose*, of State appointments, Civil Surgeoncies, Assistant Surgeoncies and redundantly lucrative fields for private practice, whether as independent practitioners or as overtime in subordinate official life, in store for Indian graduates in medicine, the proportion of whom to available State appointments is something as 3,000 is to 1: a soul stirring and ambition inspiring outlook; is it not?

Of course we cannot blame our subsidised contemporary for trying to extol the par excellence of the Indian Medical Service who are its bone, flesh, blood, nerves and marrow, although it is the private and absolute property of an enterprising firm of Booksellers, Stationers and Publishers, who spend a lot of money on it: but it behoves us to sound a dissentient note when it goes in for wholesale but totally undeserved stigmatising of the non-official practitioner, and clamours for more privileges for the already too much privileged and theoretically hard-worked though in reality next-to-nothing-to-do higher official.

That there *was* a time when India stood badly in need of qualified medical aid, and that the Indian Medical Service was permitted, to meet this urgent want, we all admit; but that *that* time has long since vanished is amply proven by the facts that the banking accounts of the I. M. S. are not near a tenth of what they used to be only *fifteen* years ago, and that, comparatively speaking, India now has nearly twice the amount of the fully qualified medical aid available in the British Isles. Year after year adds to this number many of whom could emulate a SYME, a PLAYFAIR, a FAYRER, or a MACLEOD, and whose names would be on every tongue if they were only found the opportunities the Government MAKES for its pet *clientèle*, the I.M.S So that when the *Gazette* contends for a continuance of I. M. S. surveillance and monopoly of the fields of practice, it is somewhat in the position of the ancient matron who, making no allowance for the growth in mind and body of her sixty-year-old son (himself a grandfather perhaps) still looks upon him as "my boy," whom she is continually advising "for his good" and asking for the same deference to her views and wishes as he did in his baby days.

We are extremely chary of accusing our contemporary of wilful untruth, when his statements, which are incorrect, may be the result of not being *au fait* with the progress of medical politics; but we would point out that there are several ways of putting facts, and though the majority of them are not strictly true, they are also not wholly untrue.

Thus the honest way of telling the truth is a plain statement of facts, which conceals nothing, and going the full length of complete confession, pleads no extenuating circumstances, not even to save oneself from punitive or unfriendly consequences. This mode, though of immense value to the practical man, is more than often unpalatable, and under the strained relations that exist between officials and non-officials, is considered impolitic by the former, who usually adopt one or other of the following methods to excuse or justify themselves in Parliamentary gaze, lest they may lose the advantages *granted to*, but not *always* merited by them.

The second consists in admitting the charge but immediately pleading a vast array of circumstances, which it is pretended, *forced* the acts complained of. (3). Is an evasion of actual confession by hiding the actuality in a mass of cunningly disposed superfluous verbiage that in most instances is understood in an entirely different way to what the confessor pretends he really meant it to be. (4). Beginning with platitudes of the parties addressed or unlimited slating of the parties concerned says a great deal that is neither admission nor denial, and in the end confesses *nothing*. (5) The official mode of burking too close enquiry by statements of the diplomatic delphian oracle character which, like the clever *Roma victa est*, cuts either way equally sharp and seemingly savors of the sanctity of truth, which it really is not. (6). Disclosure of partial facts with deliberate suppression of the more pertinent portions, the disclosure of which might not subserve interested motives, while the disclosed portions are told in the sincere hope that they will work back to the end desired by the wily confessor, and (7). The truth told in such a way that it really confesses nothing, though the only possible inference it leads to *must* eventually harm the community it is secretly hurled at in deadly hatred, though it ostensibly pretends to protect their interests.

Thus while informing the public that apart from the appointments offered by the Indian Government, "many of the Native States possess well-organised medical services offering honorable employment on a liberal scale of pay, &c. Our truthful contemporary conveniently forgets to say that the majority of the States that possess such "services" also have their own medical schools to whose graduates they certainly give the preference for employment.

Then forgetful of the fact that the *Gazette* notification of 1894, which demanding medical certificates signed by I. M. S. officers only, under the rôle of Presidency Surgeons, to each of whom it relegated a large and especial class of officials who had hitherto exclusively entrusted the care of their ill health to non-official doctors, essentially deprived the independent medical man of at least three-fourths of his legitimate income by also ruling that a Government clerk, &c., in ill-health could, for the small sum of Re. 4, *compel* a Surgeon-Major, Surgeon-Lieutenant-Colonel, &c., to give him a certificate of his state of health,

which certificate the private practitioner would not have written for less than Rs. 8 or 16. The *Indian Medical Gazette* prophesies "that the openings for private practice are so increasing" that the prospects of medical men in India are exceedingly hopeful, more so indeed than in some European countries," and then stultifies itself by admitting "yet the manufacture of graduates of medicine is increasing steadily, and is somewhat in excess of demands."

Next ignoring the patent yet more than often untruthfully denied fact that "its pet *clientèle*" *do* receive "commissions on their prescriptions," the *Indian Medical Gazette* has a slap at those European and Anglo-Indian non-official practitioners, who are honest enough to openly dispense their own prescriptions or as openly sit (*not* on commission but on regular salary) for the purpose of giving medical advice at those very dispensaries from which its "pet *clientèle*" derive their handsome "commission on prescriptions" and by some intensely peculiar slip of the pen, our esteemed contemporary says: "In recent years the great majority of graduates and licentiates of one of the Indian Universities have found employment of this nature, either permanent or temporary, within a few months of passing their examinations," when if it really meant to tell the truth, it should have said "the great majority of those few graduates, &c., who have been selected from the many hundreds who have passed out of one of the Indian Universities, to wit, the Calcutta Medical College, have been appointed within a few months of their passing their examination." This reads very differently, but it is nevertheless a fact that can easily be proved by reference to the "roll of graduates."

There are a number of other discrepancies and iniquities that space will not permit special reference to; but it goes without saying that if the *Indian Medical Gazette* only took the trouble to look properly into matters instead of emulating the war artist, who never heard a shot fired or saw a bayonet fixed or sabre drawn, of the fierce battles he pourtrays on canvass in some safe nook, thousands of miles away from the seat of action, it could not honestly depict the glorious future it prophesies in a more than congested field for medical practice, and certainly could not urge the fractional part of a single sane reason for the glamour with which it surrounds the Indian Medical Service and damns the non-official practitioner.

Our own columns have times without number adduced more than sufficient proof of the unjust and unkind manner in which the independent practitioner is hounded to death and severely handicapped at every possible point by State-aided competition and by freer advertisement of official medical men in the Government Gazettes and in the medical and lay papers.

We have shown the *immense* harm done to the public by pitchforking an accoucheur into the materia medica or chemistry chair, or suddenly converting an eminent chemist into a store-keeper, obstetrician or pathologist, and it now remains with the Government to fulfil the promises it made to its thousands of medical students and save its millions from wholesale destruction. God help us if the State wont.

CIVIL PLAGUE MEDICAL OFFICERS.

FORTY-FOUR years ago, JOHN BRIGHT said of India:—"I am very anxious to see a much wider employment of the most intelligent and able men amongst the native population"; but though India and her subordinate services are full of very capable men, more than competent to hold much higher offices than they at present do, Lord GEORGE HAMILTON seems to think that "skin" makes such a difference in mental calibre, that an Indian, who has rendered 5 to 13 years' good and faithful service after passing his M.B., C.M., or winning the "triple qual" of Scotland, is inferior mentally to a European who has only just got through his "Double Qual." or even the L.S.A. examinations and does not know sufficient Hindustani to ask for a drink of water, much more tackle the stupendous task of plague enquiries.

It seems a case of "importing coals for Newcastle," for with oceans of indigenous talent at its immediate disposal and the option of selecting from its existing Military and Civil Assistant Surgeons, tried men whose long experience of India and her dialects, religions and customs, peculiarly and especially fitting them for effectually dealing with matters that the illiterate masses always have a misconception of, still because of the benefits expected to be obtained from raw English material caused the Madras Government to advertise in Great Britain for eight medical men *for plague duty*. These men were to receive Rs. 500 per mensem each, and the Secretary of State engaged them for one year certain.

If these doctors had any special qualifications as biologists or were sanitarians of long and tried experience, we might have nothing to say against their engagement, but when Government is continually complaining of financial difficulties, it does seem strange indeed and unjust too that Rs. 48,000 should be taken out of the public exchequer for the maintenance of eight *young* men, fresh from college, who have been told off to civil holdings that ought in common justice to be given to deserving Assistant Surgeons, as some little return for their faithful services, while the "plague work" for which these six gentlemen were ostensibly imported, has been assigned to the higher officers of the Indian Medical Service, and the claims of the Assistant Surgeons have been deliberately ignored.

This is how these "Plague (?) Doctors" have been disposed of:—

(1). F. V. O. BEIL, M.R.C.S., to be District Medical and Sanitary Officer, South Arcot.

(2). A. C. RENDLE, M.B., B.C., to the General Hospital, Madras.

(3). S. F. LUSK, M.R., C.M., to be District Medical and Sanitary Officer, South Canara and Superintendent, Mangalore Jail.

(4). S. S. NIGHTINGALE, M.R.C.S., civil charge of Kurnool District.

(5). J. W. G. MYLER, M.D., M.R.C.S., to be District Medical and Sanitary Officer, Cuddapah.

(6). C. S. LANGLEY, L.R.C.S., L.R.C.P., to the General Hospital, Madras.

(7). T. W. ILLINGWORTH, M.B., C.M., M.D., to the Government Maternity Hospital, Madras.

(8). G. CHARLESWORTH, L.S.A., to be District Medical and Sanitary Officer, Godavery.

No. 1, who is only an M.R.C.S., supercedes Assistant Surgeon R. SUNDARAM, M.B., C.M., who has tendered 5 years'

unexceptionably good service at South Arcot; while Assistant Surgeon J. St. C. De B. BARTLEY, L.M.S., L.R.C.S. & P. (Edin.), L.F.P.S. (Glas.), with his 13 years' good service, has to play second fiddle to an L.S.A. at Godavery District, and Mr GANAPATHY, L.M.S., who is held in high repute all over the West Coast and during his 14 years' tenure of office has frequently acted as District and Civil Surgeon of large and important districts, has to make over his present post of District Surgeon, Mangalore, to Mr. LUSK, a *fresh* arrival from England.

It is more than palpable that the rule that half a dozen Civil Surgeoncies should be filled by Indians is a dead letter, not from dearth of competent men, but from that bias which will not maintain the balance evenly between Indian, Anglo-Indian and European medical officers.

If these imported doctors are really necessary for plague duty, why have they not been sent to Arkonam, Guntakal, Hospett, Kondapallee, Perambore, Pothanore, Trichinopoly and Tuticorin to replace the pensioned men stationed there and relieve the Government of an additional expenditure of Rs. 28,000, the light-hearted squandering of which is by no means pardonable in the present state of Indian finances, and the entertaining of the plague doctors—if there be no valid reason for their engagement or stations available for them to be posted to—appears to be a piece of whimsical patronage, or rather a State lottery, by which anybody may be pitchforked into anything; appointments being created for men instead of men being found for existing vacancies.

Personally, we have nothing against the "Doctors from England," who are neither Commissioned Officers nor in any way specially qualified for the Indian Medical Service, to which they have no sort of claim, whether as to privileges or the obedience expected from its subordinate branches, both military and civil; but we cannot understand the justice of importing them to Madras in the name of "plague" and thrusting them in charge of districts as District Medical and Sanitary Officers, to the utter exclusion of Assistant Surgeons possessing Indian as well as British qualifications in no way inferior to those of the new doctors over whom they also have the decided advantages of longer experience and an intimate acquaintance with the religions and customs of the people with whom they will have to deal in these civil posts,—a no easy matter to properly and satisfactorily handle.

To say the least, the present policy of the Madras Government is altogether unjustifiable, and it is indeed a crying shame that Indians and Anglo-Indians, who go all the way to England and obtain British medical qualifications at great expense and inconvenience to themselves, should find their best hopes and highest aspirations most cruelly blasted, for no better reasons than the accident of their birth and the color of their skin, more especially after all the worry and work that has fallen to their lot in their long service which seemingly does not merit the reward of adequate recognition, though they have ever been willing, yea and eager, to help the Government in time of war or pestilence.

We appeal to Sir ARTHUR HAVELOCK's well-known sense of justice to consider if he can do nothing to remedy or put a stop to such gross injustice to a class of men who deserve better treatment at the hands of the State.

CURRENTS AND NEWS.

WILLIAM FORBES-LESLIE, M.B., C.M., ABERDEEN, ON THE PATHOLOGY AND TREATMENT OF MALARIAL FEVER.

A PAPER of considerable interest and suggestiveness appeared in *The Lancet* of 4th June, by the above-named author, entitled "Malarial Fever, some Suggestions in its Pathology and Treatment."

It is necessary, in the first place, to remark that Dr. FORBES-LESLIE is far from accurate regarding the malarial parasite. He tells us that, "Italian observers lay claim to its discovery," and that "KLEBS was the first to demonstrate this theory by the discovery in the blood of an organism which he believed to be that of malaria."

It is of course unnecessary to remind our readers that the malarial parasite was discovered by LAVERAN, a French Army Surgeon in Algiers, and that KLEBS was merely associated with TOMMASI-CRUDELI in the discovery of a bacillus, which they called the bacillus malariæ, and which has long since been proved to have absolutely nothing to do with the disease, and which is an entirely different organism from the parasite of LAVERAN, which is not a bacillus at all but an animal parasite.

Dr. FORBES-LESLIE holds several other very curious ideas about malaria which, we imagine, will not meet with ready acceptance, chief amongst these is its connection with other diseases. "Some observers," he says, "are inclined to grant it an epidemic power, and this I believe it has in certain of its independent forms, such as influenza, malarial cholera, yellow fever and dengue." Again, he says: "We may read a malarial origin in pneumonia, typhoid fever, cholera, dysentery, enteritis, yellow fever, malignant endocarditis, multiple neuritis, locomotor ataxy, myelitis, meningitis, lunacy, hepatic troubles, kidney disease, blood diseases, skin diseases, and a host of others, not forgetting the bleeding diathesis."

It is not, however, to notice these lapses and peculiarities of Dr. FORBES-LESLIE that we have introduced the subject, so we will pass over them lightly and come to what he has to say on the subject, first, of treatment and then of pathology.

This branch of the subject he has had a large experience of—twenty years he tells us—and he has studied it carefully. "Where quinine," he says, "was discovered to have a favorable effect in malaria, it was at once conceived to have a specific action That it has a favorable effect is beyond doubt but a specific action would indicate that it cures the disease—which it certainly does not. I came to this conclusion from a study of both the Indian and African fevers. The method of giving quinine in large and frequent doses is sometimes a source of danger * * in the deadlier forms of ague it is most pernicious."

"Experimenting with drugs, I found that jalap had no effect on fever. With calomel I had a different result." In that form of malaria where uncontrollable vomiting is the prominent symptom, its action was instantaneous. In the comatose form its effect was equally rapid, in the continued fevers it cut short the attack. In hyperpyrexia it immediately reduced the temperature. In agues it had the effect of at first confining the stages and then preventing them." "Usually I gave 3 grs. at first in cases in which there was constipation and 5 grs. in those in which laxity of the bowels was a prominent symptom. Twenty-four hours after I administered a smaller dose, and if there was no severe purging in 36 hours, a still smaller one."

"Large saline draughts should not be given with calomel

to hasten the action, but soda and potash waters in small quantities to quench thirst."

"I cannot recommend pepper too highly as a stimulant in malaria."

Regarding biliary stimulants he says:—"I was not long in discovering that they were injurious, showing that increased secretion of bile without proportional oxidation reacts unfavorably."

"I have found fever to be induced by a full diet of meat and fats."

"I find that quinine has a more favorable action on the poison after the administration of calomel, than without it."

"I experimented with several drugs said to give antiseptic properties to the blood, such as salicylic acid, arsenic, potassium iodide, and carbolic acid. I got the best results from carbolic acid, but better results still by a combination of carbolic acid and quinine in solution, 1 gr. of carbolic acid to 3 grs. quinine in sulphuric acid and water to 1oz. every four hours. In my hands it has been practically a specific."

"In the after-treatment, the principal object is to nourish the patient, at the same time keeping close watch on the liver, regulating any derangement at once, keeping the paths of excretion open, and giving a diet largely consisting of carbohydrates. Alcohol must be sparingly indulged in; excess is fatal."

"Another point which is not generally known is that a sea voyage is unfavorable unless the patient is fully convalescent."

PATHOLOGY.

We will now turn to his views upon pathology. "My opinion is," he says, "that the true malarial germ has not yet been discovered." He discusses MANSON'S mosquito theory and disagrees with his conclusions. He believes that there is a special organism which has not yet been discovered.

"I cannot bring myself to consider malaria other than the result of the products of the developmental energy of the organism outside the blood-stream, and some of the facts which have led me to this belief are that preceding the fever there is invariably a stage of hepatic congestion and signs of bile in the blood; the proneness of the disease to attack the *primæ viæ*, as evidenced by gastric derangement, enteritis, dysentery, and typhoid fever; the peculiar liability of the liver to acute inflammation with abscess as an extension from the *primæ viæ;* the induction of the algid malarias through the *primæ viæ*, the success of a treatment which aims at sweeping out the intestinal tract and disinfecting it; chills and rigors preceding the rise of temperature, with alternating falls and sweating; and the periodic type of the disease with alternations of health and disease. We know that constipation and other bowel derangements will cause stagnation of bile with increased absorption into the blood, and that in this condition the constitution is more liable to disease than at any other time. We know also that by an energetic action by purgatives we can cleanse the *primæ viæ*, promote the natural passage of bile, and filter that already in the blood partly through the intestinal walls and by the kidneys. Now we know of no organism which fulfils part of its life history in the human blood which gives rise to such symptoms as are invariably found as a part of this disease, except perhaps dengue—but dengue is only malaria under another name—and relapsing fever, which bears a close relationship to it. Idiopathic cases of pyæmia are so like malaria that it is often impossible to distinguish them. But this only bears out the fact that malaria, like pyæmia, is an extraneous disease."

"If we grant the extraneous life of the parasite, then where is its place of development? Like pyæmia it must have a laboratory. I have no doubt that the laboratory is in the intestines. It is also certain that the liver has an influence upon its development. Derangement of the biliary functions is always present before an attack. But such a condition can be observed before all diseases of the intestinal tract, showing the intimate relation between the liver and the *primæ viæ* and the tendency to inflammation spreading upwards to the liver. It is interesting to observe that LAUDER BRUNTON attributes some importance to the liver in connection with the arrest of certain substances absorbed from the alimentary tract whereby they are either destroyed, stored up, or it may be prevented from entering the general circulation in too large amount, and that ptomaines may be arrested in this way."

Further, the action of the liver, according to H. ROGERS, is dependent upon the presence in it of glycogen. Glycogen is a true carbohydrate and its mother substance is the carbohydrates of the food.

"It is increased by large quantities of starchy matters: milk, fruit, and cane sugar; it is diminished enormously by a purely albuminous or fatty diet, by forced muscular movements or fatigue, exposure to cold, by hunger or by anything which disorders the biliary functions."

"Now let us look at the conditions which induce malarial fever. They are identical with those which diminish glycogen —*e.g.*, purely albuminous or fatty food, fatigue, exposure to cold, hunger, or anything which tends to the formation of acid, a derangement of the biliary functions."

Directly there is an imponderence in the diet whereby the glycogen is diminished, then the fever manifests itself. The effect of chills inducing an attack strengthens the hypothesis; for we know that in hot climates the glycogenic functions are profoundly affected by changes of temperature."

Briefly then, according to Dr. FORBE'S-LESLIE, malarial fever depends upon some organism or poison as yet unknown whose laboratory is the intestine.

In health, that is as long as the liver retains glycogen, the liver acts as a filter and prevents the poison or organism invading the system.

When the amount of glycogen is diminished, as it may be through several causes, the liver loses the power of arresting the poison or organism, which then passes into the blood and is the cause of the disease.

The treatment should, in the first place, be directed to clearing the offending matter out of the intestine; secondly, to destroying the poison already in the blood.

We think that to many who have studied malarial fevers clinically, Dr. FORBES-LESLIE'S views will be found to have much to recommend them.

HOSPITAL ABUSE IN AUSTRALIA.

DR. CHARLES P. B CLUBBE made the following remarks on the subject in his Presidential address to the New South Wales branch of the British Medical Association:—

HOSPITAL ABUSE.

This country, like many others, suffers from, and has suffered from for many years, what is called hospital abuse. By this we may understand a misapplication of charity. Charitable institutions, that were originally founded for the relief of the sick poor, are now resorted to by all sorts and conditions of men. People perfectly well able to pay for medical advice on moderate terms now flock to these hospitals and receive the charity dispensed there without the slightest qualms of conscience, without feeling that they are doing any body any harm. They go with money in their hands, and they claim attention to their ailments as a right, quite forgetting that the very fact of their being able and willing to pay should at once and of itself debar them from receiving

charity. The people that abuse hospitals may be divided into five classes :—

First, those that are well off and go into hospital with the full determination of cheating the doctor. When these people are asked the ordinary questions as to their means, they probably say that they are not earning a pound a week. This may be actually true, but at the same time they may have several thousand pounds put by.

Second, the people that go to hospital because they do not consider they are recipients of charity at all. They would be quite indignant if you called them paupers. They always pay their way. They consider they pay for what they get. They do not consider for one moment they are cheating the doctors, because they fancy we are all paid for the services we render.

Third, the people who do not want to go to the hospital at all, would much rather be at home, but they are sent in by their medical attendant. The medical man has, perhaps, been attending for a few days, and then finds out or thinks that an operation is necessary.

Fourth, well-to-do people, who meet with accidents in the streets or elsewhere, and who are taken by the Civil Ambulance Brigade straight off to the nearest public hospital. Many of these cases should not go to a public hospital at all If they cannot be taken home, they could easily be taken to one of the numerous private hospitals, and their own medical man could be sent for

Fifth, careful people with limited incomes, not by any means paupers—persons who would willingly pay a small fee for advice but are quite unable to afford the usual fee charged by the general practitioner.

Dr. CLUBBE shows that the usual fees charged by practitioners is higher than the majority of the people can afford to pay, viz., 10*s.* 6*d.* As an important measure of reform he advocates lower fees to the poorer classes.

The remedy according to Dr. FREDERICK HOLME WIGGIN, New York —

In my opinion, the first step which should be taken towards remedying the existing abuse, is an effort to educate the laity to believe that medical professional services have a pecuniary value, and that is morally wrong for those able to pay, even a moderate fee to try to get this service for nothing. It should be thoroughly understood that people of means applying for free treatment at dispensaries intended for poor persons, practically rob the poor by taking up the physician's time that should be devoted to the poor—those for whom alone these institutions were intended. It would be a great aid in this direction if physicians connected with charitable institutions were paid for their services. There certainly appears to be every reason why they should, and none why they should not be compensated.

In the second place, all institutions which dispense medical charity should be placed under the direct care and supervision of State boards of charities, created by legal enactment, if they do not already exist, which should have the power to grant incorporation or licences to such institutions as the public interests seem to require, and to make such rules and regulations for their guidance as they consider proper.

THE BACTERIOLOGICAL FAD PUNCTURED.

THE *Medical Brief*, under the above somewhat sensational heading, discusses certain views which have been expressed on the subject of bacteria by Dr. HENNAGE GIBBS, the well-known London bacteriologist :—

"Concerning bacteria as a factor in the causation of disease, Dr. GIBBES," we learn "made his position very clear. While recognising their existence and possible influences, he denies their importance as a causative factor of disease." "Conceding to Dr. KOCH, the discovery of the tubercle bacillus and the bacillus of cholera, he denies that in either instance has the etiological influence been demonstrated."

But who is Dr. GIBBS? the reader will naturally ask. Well, here is the answer, and it must be admitted that no objection can be taken to his views on the score of incompetence.

When the University of Michigan, some ten years ago, cast about to secure a man for the chair of bacteriology in the medical department, who stood at the head of his profession in this respect, it scrutinised the records of many men whose names are as household words in science, and finally selected Dr. HENNAGH GIBBS, then of London, as the man best fitted for the place. Dr. GIBBS was at that time justly regarded throughout learned Europe, and by those in America cognizant of his attainments, as an authority in questions involving pathology and bacteriology, in its relations to the etiology of disease.

The London *Medical Press* reports Dr. KOCH, of Berlin, as saying, "With the departure of Dr. GIBBS for America, England loses one of its foremost bacteriologists." Sir JAMES PAGET, one of England's greatest surgeons, pronounced Dr. GIBBES "one of the most active and successful workers in modern pathology and bacteriology"

His denial, therefore, that the bacteria is the causative factor in disease is not based upon mere opinion, but on actual experiments. So convinced is he of the non-causative nature of the so-called pathogenetic bacteria, that he has time and again inoculated himself with bacteria without experiencing the slightest evil effect.

"The idea," says he, "that we must dodge a K'ebs-Loeffler bacillus here, to escape diphtheria; a bacillus tuberculosis there, to escape consumption, or a comma bacillus to evade cholera, etc., is a mere fad, nothing more nor less" He denies, too, even the fact, hitherto urged as a proof of their etiological nature, that these pathogenetic micro-organisms are always present in certain diseases. He declares that he has conducted hundreds of autopsies on consumptives without finding a trace of bacillus tuberculosis. Speaking on this point, he gives the following rational account of its origin "A young woman gets wet feet; she takes cold, acquires bronchitis—capillary bronchitis. This terminates in pneumonia and runs into consumption, which finally causes death. Where does the bacillus come in? You will not find a germ in her lung, either." In short, his practical investigations have convinced him that the whole germ theory of disease is a mere theory, or, to use his own term, "a fad"

While admitting, and paying tribute to the learning of Germany, which he declares is universal, he denies the claims of superiority of "German science." "There is no such thing," he exclaims, "as German science—science is universal." "The Mecca," he continues, "of the American physician is Berlin; nothing good can come from any other source than Germany in the science of medicine as taught in American schools. The admiration of German scientists is nothing short of idolatry. In Germany, Dr. KOCH'S theories are generally regarded as *theories*; in this country they are held to be *facts*. I taught along the lines of KOCH, but presented results only for what they were worth."

THE BACILLI OF BERI-BERI.

THE following interesting note on the bacilli of beri-beri by M. GUSTAVE NEPVEN (*Comptes Rendus,*) was presented to the French Academy of Science on the 17th January 1898 :—

"The morphological characters of the bacilli of beri-beri are quite distinct; so that, in spite of the absence of cul-

tures and of experimental proofs—researches which can only be carried out with fresh liquids in the tropics where the disease arises—I believe I am entitled to say that the bacillus I am about to describe is the true specific bacillus of beri-beri.

"The anatomical specimens which have provided material for this research all came from Senegal and were taken under the most favorable conditions.

"Three different forms of bacilli are found in beri-beri, viz., large, medium sized and small.

"*The large bacillus* is occasionally, but rarely, found in the vessels together with the other forms, its seat of election is the kidney; there it may be seen either alone or in groups in the cavity of the glomeruli, within the convoluted tubes or in the loop of Henle, less frequently in the straight tubes; their length is 6*u*, 7*u*, 8*u*, 9*u*, 10*u*; their width from 0·3*u* to 0·4*u*; they are straight or slightly curved; their ends are ovoid and always of a dark color; clear and dark colored spaces alternate to the number of 5, 6, 8, etc., in the largest bacilli, a very fine bordering line surrounds the bacillus.

"The best means of demonstrating the large bacillus is to stain sections of the kidney (per un bain d'alun d'ammoniaque et de sesquioxyde de fer au $\frac{1}{1000}$, de le surcolorer au bleu de Roux et de les décolorer ensuite fortement) in a solution of alum, ammonia and sesquioxide of iron to $\frac{1}{1000}$, to counter stain with Roux's blue and to decolorise sufficiently; the dark parts remain blue, while the remainder with the surrounding line are stained a delicate rose color.

The medium bacillus is much smaller, 3*u* to 4*u* at most in length and about 0·3*u* in breadth, like the preceding it has alternate dark and clear spaces, it is found in large quantities in certain vessels, in the small veins, capillaries, and arterioles of the kidney, so numerous are they that they present the appearance of a thick muddy liquid and from their abundance they would be difficult to describe if their characters were not emphasised by strong staining with fuchsin and methylene blue.

"By this means the elements of the dense mass can be recognised.

"*The small bacillus* is very small and exists in considerable numbers in the blood, they are scarcely as broad as tubercle bacilli, but their length is hardly double their breadth; their general appearance is that of a small rectangle. They can be distinguished with a 1/40 objective and a No. 12 Zeiss-eye piece. They are scattered over the surface of the red corpuscles and around their circumference, giving to them a crenuiate appearance.

"Are these three forms of bacilli distinct? The large and medium appear to me to be of the same nature and to be analogous to the bacilli of fowl, cholera and of rabbit septicæmia. Considering the extreme minuteness of the small bacillus I cannot affirm that the others are derived from it, though I think it probable. The medium and small forms are found in the blood of all the organs: spleen, kidneys, liver, spinal marrow, etc."

THE SPREAD OF ENTERIC FEVER.

THE *Public Health Engineer* says:—"Dr. JOHN BROWNLEE, of Belvedere Fever Hospital, recently read a paper to the members of the Philosophical Society of Glasgow entitled, 'Observations on the aerial transmission of the enteric fever poison, with a record of an outbreak presumably caused by this means of infection.' He alluded at the outset to the revolution in the method of research brought about by the discovery of the enteric fever bacillus in 1880, and spoke of the experiments and investigations of Dr. ROSENZWOW, of Sheffield, and Dr. SOUTAR, of Egypt. The former had found that the bacillus could live a considerable time in ordinary arable land, but Dr. SOUTAR said that enteric fever was spread *by* dust among the soldiers in the Egyptian campaign of 1865. He described an experiment which he himself had made, by which he found that the bacillus could live in ordinary dust, because dust always contained a small amount of moisture. He then gave an account of an epidemic in the city of Glasgow fever hospital in Kennedy Street. There had been a number of enteric patients, and some time later, when the drains were upturned for repair, a number of cases occurred all over the hospital. He believed these to have been due to aerial transmission of bacilli. Dr. BROWNLEE's conclusions were:—(1) That more especially in large towns all back courts should be provided with an impervious pavement; earth or causeway being open to organic fouling; (2) they ought to be carefully scavenged by the plentiful use of water; (3) wet ashpits are extremely objectionable, and should not be tolerated, for not only do they provide a fertile soil for propagation of the bacillus, but their cleansing may be a new source of the disease both by aerial contamination and also by conveyance of the bacilli to new and possibly unpolluted localities. A series of sporadic cases might readily occur in the district without any apparent connection among themselves, yet which, if our knowledge of the train of associated circumstances were complete, might be traced back to a common source of infection."

A MEDICAL SAVANT'S OPINION ON THE SO-CALLED CALCUTTA PLAGUE.

DR. MAHENDRA LAL SIRCAR, M.D., D.L., C.I.E., one of the oldest and most respected physicians of Calcutta, writes as follows of the so-called Calcutta plague:—

"The Municipality has been busily reporting case after case, as occurring here and there in Calcutta, and up to the 30th of this month (May) 76 cases and 57 deaths have been reported. Some of these cases, which had come under the observation of watchful men, were challenged and proved to be cases of ordinary fever or even other diseases than fever, but we do not see that the Municipality has taken care to make the necessary corrections in their returns. If it was the object of the Municipality to swell the numbers of the plague cases or the so-called plague cases in order to show that Calcutta was really plague-stricken, it could not have adopted a better plan.

"It is fact that medical opinion is not unanimous on the real nature of the cases that have been reported as cases of plague. The oldest and the most experienced practitioners of the city are decided in opinion that the cases are not new to them, that they have been observing and treating such cases ever since they have commenced to practise. With all deference to the high medical authorities who have pronounced plague in Calcutta, we are inclined to hope that the real disease has *not* yet made its appearance in our city; or if it has, it has come shorn of its infective virulence."

Dr. SIRCAR shoulders the full responsibility of the above quotation, which we take from the *Calcutta Journal of Medicine*. We endorse every word of the above protest, but we raise an objection to the initial paragraph. The Municipality cannot be fathered with the failures of the Bengal Government. Let us nail the charge on the right notice board, and blame the ethereal Plague Commission, for the follies that have resulted in a reign of terror and lawlessness in the city.

SUGGESTED IMPROVEMENT IN BOMBAY SANITARY ADMINISTRATION.

Surgeon-Lieutenant-Colonel Clarkson offers the following suggestions in the Bombay Sanitary Report:—"The time has now come to add to the Sanitary Department the nucleus of an establishment which, while strengthening it, will also enable it to impart instruction," and he urges that an establishment might be formed on similar lines to the Sanitary Institute of Great Britain. The extra staff would include a bacteriologist, and the scheme contemplates the acquisition of a building large enough to accommodate the establishments of the Sanitary Commissioner and Sanitary Engineer, the bacteriological and chemical laboratory, and a combined lecture-hall and show-room for sanitary exhibits. Courses of lectures would be given to medical men, and to persons desiring to qualify as *maistries* or native supervisors, and examinations would be held and certificates granted. It is suggested that the District Municipal Act should be amended so as to preclude the appointment after a certain date, of health officers and inspectors who have not obtained certificates of qualification. Dr. Clarkson's scheme is undoubtedly the most practical suggestion which has yet been brought forward to obtain an improvement in mofussil sanitation. If it is carried into effect, it ought to ensure a permanent supply of men trained in the principles of sanitary work. Only by some such means will it be possible to bring about sanitary progress in Western India. We heartily endorse his futher recommendation that municipalities "should not be allowed without the sanction of an independent body (say the Sanitary Board), to dismiss or curtail the pay of their health officers and sanitary or health inspectors, or any superior servant who does sanitary duty." This principle already obtains in England, where municipal servants of the higher grades have a right of appeal to the Local Government Board, which in some respects performs duties corresponding to those undertaken by the Bombay Sanitary Board. The Bombay Government has hitherto been reprehensibly neglectful of some classes of municipal servants. Had proper supervision been exercised over the relations of municipalities and their employés, the grievances of the European sub-inspectors in the Health Department, of the Bombay Municipality, who are scandalously underpaid, would long since have been remedied."

LEGISLATION AS A REMEDY FOR MEDICAL GRIEVANCES.

A battle-royal is being waged by Drs. B. Brudenell Carter and Victor Horsley on an issue arising at the last meeting of the General Medical Council from a demand by the Executive Committee to register three unqualified dentists by the ambiguous rulings of section 37 of the Dentists Act, and the medical press has taken sides with their respective champions.

In order to secure a larger proportion of the loaves and fishes for qualified practitioners and protect their incomes from the attacks of prescribing chemists, foreign doctors, quacks and such like unregistered persons, Mr. Victor Horsley (*Clinical Journal*) gave a public lecture on 12th December 1897 at which, among other things, he insisted that registration was the *only* qualification to practise medicine, surgery and midwifary, and that if the (Medical) Acts of Parliament meant anything at all, they meant that the man who was not registered was not entitled to practise.

Rightly or wrongly, we cannot say, as Mr. Horsley's speech is not published in extenso, but Mr. B. Brudenell Carter, F.R.C.S. (*Medical Times and Hospital Gazette*) contends that Mr. Horsley was prompted by unkind feelings to attack him personally and based his deductions on the position of a "comma" he found in a printed copy of the Medical Act; but forgot or did not know that "there are no stops in an Act of Parliament. He spoke of his own career as a practitioner long years before Mr. Horsley was born, and showed an unbroken record of 40 years in higher medical journalism. He brought non-controvertible *facts* to prove that the Medical Acts neither afforded the profession protection against unregistered practice nor rendered it compulsory for every qualified person to register, nor could prevent a qualified man continuing to practise after his name had been erased from the Medical Register, nor even had power to prevent unqualified persons from practising, so long as they used no titular initials to deceive the public. He admitted he was dead against counter-prescribing, patent medicines and unqualified practise, but regretted that quackery *must* continue so long as the British Medical Association derived a large portion of its income from the advertisements of quack medicines

HEALTH OF BOMBAY.

Statistics for the week ending 31st June show that the health of Bombay has been completely restored.

The total mortality was 448 or 33 below the five years' average. The plague has declined in a remarkable manner, as the following table shows. It it is hoped that in another month the city will be quite free from disease :—

Deaths from Plague.

Week ending 17th May	...	...	...	109
24th "	...	...	...	101
31st "	..	...	...	84
7th June	..	...	...	44
14th "	...	...	...	26
21st "	...	...	...	15

It is noted that the districts of Mandvi and Cammatteepoora, which were the first districts attacked during both our plague visitations, are the last districts to shake off the disease. There must be something radically wrong in these districts

All the most important and chiefly fatal diseases are showing a continuous decline. The following table exhibits the decline of the last six weeks —

Week Ending	17th May.	24th May.	31st May.	7th June.	14th June.	21st June.
Measles ..	4	3	...	8	3	2
Small-pox ...	2	1	...	...	...	...
Cholera ...	4	1	...	1	...	...
Fevers ...	58	87	88	74	65	62
Phthisis ...	86	87	65	88	90	57
Respiratory diseases ...	116	125	119	89	107	95
Plague ...	107	101	84	44	26	15

Relapsing fever continues to be unduly prevalent. The following gives mortality from the disease during the last six weeks :—

Week ending 17th May ...	... 4
24th " ...	... 3
31st " ...	... 12
7th June ...	... 6
14th " ...	... 6
21st " ...	... 9

SEWER VENTILATION.

It has unfortunately fallen to the lot of the majority of sanitary authorities to be troubled from time to time with the incubus of evil smelling sewers and the complaints which they naturally give rise to, and many devices and much ingenuity have been invoked to get rid of the evil. Tall ventilating shafts appeared at one time to be considered the universal panacea, and at some fashionable resorts it was custom-

ary to construct these shafts in all sort of fancy and fantastic shapes, such as trees, telegraph poles and flag staff, so as to conceal their true nature from the visitor who might otherwise have been frightened away.

According to a pamphlet entitled "The Sanitary Problem from the Sewer Gas Point of View" by Mr. WILLIAM BROWN, reprinted from the *Public Health Engineer*, these high ventilating shafts are altogether to be condemned as a fallacy.

He points out that as the decomposition of sewage is the cause of sewer-gas, this gas can readily be neutralised if a sufficient quantity of pure atmospheric air is allowed to mix with it as it forms, *i.e.*, sufficient to produce natural oxidation; in his opinion a system of gratings level with and in the middle of the street is the best means of effecting this oxidation.

Sewer gas means an imperfectly ventilated sewer, and Mr. BROWN insists that "so long as sufficient fresh air *goes down* these gratings, the sewer air remains sweet. The essential thing, therefore, in sewer ventilation is to get the fresh air *down* not to get bad air up. *In a properly ventilated sewer there should be no bad air to come up.*

Mr. BROWN's system is conveyed in the following sentence:—"Free natural oxidation to the utmost possible, with auxiliary artificial oxidation whenever necessary" He maintains that the result is obtained by the Reves system, which is working at Sutton, Epsom, Edinburgh and Fulham and elsewhere.

LIMITS OF PROFESSIONAL SECRECY.

SAYS *The Lancet* :—"Mr. E. A. BARTON, in a letter under this title in our issue of 7th May, stated a situation which has often caused difficulty to medical men, who will be grateful to him for having ventilated the subject. We are of opinion that in a general sense, if a medical practitioner is engaged by an employer to professionally attend an employé, he ought not to divulge to such employer the nature of the illness of the patient. Of course he should exercise his discretion in the matter. There could be no harm done if the illness were of a simple nature—simple, that is to say, as regards its bearings beyond its medical aspect We can imagine circumstances which might render it wise and obligatory on the medical practitioner to inform the employer of the nature of the servant's ailment—*e.g.*, in a case of infectious disease. We do not think an employé would recover damages from a medical man for making known his complaint, provided always that the facts could be substantiated and that they were communicated without malice. There could not be a valid contract between the employer (who pays for) and the attending practitioner except as to attendance and remuneration. It is no part of a medical man's duty to act as a secret police agent. We should advise him to inform the employer that he should consider any information he might obtain in his professional capacity as strictly private between himself and the patient and not to be divulged except with the free consent of the latter We consider that secondary syphilis, for the purposes of the argument, should be classed as an "infectious disease," since through ignorance, negligence, or inadvertence it might be conveyed to other members of the household. Pregnancy or disease arising from alcoholism ought not to be divulged to the employer without the consent of the servant."

SURGEON-CAPTAIN HOPTON SCOTT, A.M.S.

SAYS the *British Medical Journal* :—"This officer, who was, as our readers know, severely wounded in action in West Africa, is, we are glad to hear, making some progress towards recovery in St. Thomas's Home. What is not so well known is the fact that, like his distinguished brother officer at Majuba Hill, although his left femur was smashed by a heavy slug, and another missile of a like formidable kind had torn his chest without actual penetration, he stuck to his duty, and while prostrate on a stretcher and severely tortured by his wounds, he continued to give surgical aid to his wounded comrades. We have seen an extract from a letter of his to his family, written from the hospital in Sierra Leone, in which he thus modestly refers to his brave conduct on the above occasion : 'Six reserve men of the M. S., including Corporal FROST, of Portsmouth, came to see me. Really kind of them, was it not? They were all full of the fact that I kept on doing duty after being hit. It was the least one could do to help them, as I was the only medico I thought nothing of it, but DONOVAN also spoke so warmly about it." If the Secretary for War needed any justification for the full measure of justice extended to the medical staff of the Army, Surgeon-Captain HOPTON SCOTT, like his brother officer on Majuba Hill, has supplied it ; both, by their bright example, inspiring their brethren when on the path of duty how "to suffer and to die."

STRAITS SETTLEMENTS BRANCH OF THE INDIAN MEDICAL ASSOCIATION.

THE monthly meeting of the Straits Settlements Branch of the Indian Medical Association was held on the 27th May 1898, the following members were present.—Messrs. A. B. LEICESTER, W. R. ANGUS, H. J. GIBBS, A. A. HALE, J. V. PESTANA.

Mr. RYLANDS, of the Johore Medical Service, attended as a visitor. Messrs. REARDON and AERIA wrote regretting their inability to attend.

The minutes of the previous meeting were read and confirmed. Mr. REARDON'S proposals seconded by Mr. ANGUS that the members meet on a Saturday afternoon instead of after dinner was negatived by the majority of the members present. Mr. GIBB'S proposal seconded by Mr. HALE that the Bonus Memorial be taken in hand at once was unanimously agreed to. Mr GIBBS (the Honoray Secretary) then read his paper on the staining of bacteria, the preparation of nutritive media and a few remarks on the great aid of the microscope in diagnosing diseases for which he was accorded a vote of thanks.

Question papers were next set the members by Messrs. LEICESTER, REARDON and GIBBS on the management of natural labor and the puerperal state; on cholera and plague; and on dislocations of the shoulder joint.

A vote of thanks to the Chairman (Mr. A. B. LEICESTER) concluded the meeting

MASSAGE IN INFANTILE PARALYSIS

SURGEON-LIEUTENANT-COLONEL W. A. LEE, I. M. S., of Tanjore, is to be congratulated on having made a move to try and mitigate the effects of infantile paralysis, and to introduce some method into the after-treatment of the disease.

He has drawn up an admirable series of simple "Directions to Mothers Respecting Paralysed Children," which are printed both in English and in the vernacular, at the "Poornachandrodaya Press," Tanjore.

In an accompanying "Note" he comments upon the usually unsatisfactory nature of the treatment which at best can be given to these cases when they are brought to the out-patients departments of hospitals.

He says that "the effect of systematic exercise of the muscles is to cause increased afflux of blood to the cord, thereby improving its nutrition and causing compensatory enlargement of the still healthy ganglionic cells in the neighbourhood of the degenerated ones."

Surgeon-Colonel LEE's directions consist of simple rules for massage rubbing and bathing of the affected limbs, they are concise and easy to understand; and we hope that the out-patients of the Raja Mirasidar Hospital, Tanjore, and of other places, may learn to make use of and to profit by them.

M. ZAMBACO ON LEPROSY

A WORK by M ZAMBACO entitled "Les lèpreux ambulants de Constantinople" (The Walking Lepers of Constantinople) has been awarded the prize for the advance of chemical medicine by the French Academy of Sciences

M. ZAMBACO, in the *Comptes Rendus*, has given a description of leprosy in all its forms, he has added new features to the classical delineation of the disease and the accuracy of his clinical pictures enables the diagnosis to be made from the objective signs, even when the bacteriological examination proves negative, in the same way that lupus can with certainty be declared tubercular, though KOCH'S bacillus is not found

M ZAMBACO has good reasons for believing that certain erethemas are leprous, as Morphœa, Scleroderma, Ainhum, Syringomyelus, even though HANSEN'S bacillus has not been demonstrated He has proved the existence of infantile leprosy, and brings forward decisive arguments in favor of the hereditary nature of the disease

Comparing a mutilating disease observed in Brittany with his observations on lepers in Constantinople, he concludes that at leprosy and MORVAN'S disease are identical, and guided by the accuracy of his clinical observations, he visited Brittany and discovered an endemic leprosy there

THE ANTI-OPIUM CRUSADE IN INDIA.

MR J G. ALEXANDER moved the following resolution at the last meeting of the British Anti-Opium Society —

"The following missionaries and other foreign residents who have, by addresses when in this country, by their writings, and in other ways rendered essential service to the Anti Opium movement, are hereby appointed (subject to their consent,) as corresponding members of the Executive Committee, with the right to attend and take part in its sittings when in England, and the Executive Committee is authorised from time to time to add other names to the list subject to confirmation at the next annual meeting of the Society

"*India*—DONALD MORISON, M D, English Presbyterian Mission, Rampur Boalia, Rev COLIN S. VALENTINE BUSE LL.D., Edinburgh Medical Mission, Agra, Rev W RAJU, Methodist Episcopal Mission, Madras, Miss SOONDERBAI POWAR, Home for Indian Widows, Poona Rev BISHOP THOBURN, D D, Methodist Episcopal Mission, Calcutta, RAI LAL MADHUB MOOKERJEE, Bahadur, L M S, President of the Calcutta Medical School

MATERNAL IMPRESSIONS

MARTIN relates the following case —"A man was shot through the chest, the bullet emerging in front in the intercostal space between the fourth and fifth ribs. His wife was near, and in rendering assistance she got her hands and face covered with blood She was approximately fifty days pregnant, and was much agitated by the conviction that the child would be born with a 'bloody face" After confinement she brought her baby, saying that it had not got a bloody face, but that it had the holes where the ball went through her husband's breast. On examination there were no holes, but there were bright red marks, consisting of elevated nævi and bright carmine spots, very near, though not identical with the location of the wound on the father's chest. The mother had seen the wounds during her husband's illness, and they made her feel sick every time she looked at them."

THE AMERICAN SPANISH WAR.

THE *Philadelphia Medical Journal* says —"War, the brutes' method of settling disputes, is upon us Hundreds of millions of dollars are eagerly voted to destroy property, create disease, mangle and kill human beings, and if one-hundredth or one-thousandth of this amount were asked of our jingo political bosses for preventing disease and death, the request would be laughed at How far are we from rationality, religion, or true civilization? Physicians, we are glad to know, will still pursue their noble vocation of lessening and repairing the evil as much as they may. Everywhere they are offering their services—we hope in their professional character—to prevent disease if possible, at least to cure it, and, in the last resort to save what of life and limb may yet be possible The progress in medical and hygenic science has served to make the barbarism and degradation of war less horrible, and we may be sure that the humanity and science of our calling will be felt in mitigation of the pitiable evil and injustice"

TO MY ANTI

WE quote the following from the *New York Medical Record* —

'What cures my head when full of aches,
All joy my racking brain forsakes,
And all life's pleasures seem but 'fakes'?
My Anti

What cools me when I feel as hot
As Dives when below he'd got
And envied Lazarus happy lot?
My Anti

What helps me when I have the fits,
And every one who round me sits
Immediately gets up and 'gits'?
My Anti

What fills the German chemist's purse,
And incidentally perhaps the hearse?
What always terminates my verse?
My Anti

PRESCRIBING CHEMISTS. LAWFUL AND UNLAWFUL

THE *Chemist and Druggist* responds to a query as follows —"If a customer states his symptoms and you decide on and supply the remedy, you are acting as an apothecary, and are liable accordingly, whether the remedy supplied is a proprietary article or not. But if you advertise the remedy and the customer himself fits it to his symptoms you are not liable to any action" This is an accurate statement of the law, but we should very much like to know how many chemists keep within the law in this respect Prescribing by chemists has become quite universal, and it is high time that steps were taken to exact penalties from a few notorious offenders. The fact is that the medical profession has allowed its rights and privileges to be encroached upon by every body in the past, and there will be need of very vigorous measures now if these privileges are to be retained"

FIRST CARE OF A BABY.

HARON (*Cleveland Med Gazette*) is one of those who believe that the baby who is started right stands a much better chance to grow up well and strong than if allowed to catch cold or get indigestion within the first few hours of life. He insists upon the following simple rules as being all important: (1) Do not expose the baby after birth to a greater change of temperature than is absolutely necessary. (2) Do not allow attendants to subject him to prolonged exposure while washing, but rub him over with lard (this usually being convenient), and quickly wipe him off and

wrap him up warmly. (3) Do not use too fine a thread in tying the cord, and dress the same with dry, sterile dressings. (4) Give nothing but tepid water or some very weak aromatic tea until there is sufficient milk in the mother's breast for the child's requirements (5) Notice the clothing and see that the abdomen and chest are not constricted thereby.

DR GAUCHER ON KIDNEY DISEASE

M. LE DR GAUCHER (*Comptes Rendus*) in his work on the pathogeny of epithelial nephritis, has demonstrated experimentally the toxic origin of this ailment by the subcutaneous injection of animals with extractives such as leucine, tyrosine, creatine, creatinine, xanthine, hyporanthine From these experiments he deduces the pathogenic rôle that matters due to mal-assimilation exercise in the kidney, and he shows more lucidly, than it has ever been done before, the great importance of diet in the treatment of kidney disease, according as matters are introduced into the system which have an injurious effect on the kidney or the reverse

THE MAN NOT THE DIPLOMA.

SAYS the *Medical Record* —' Dr. PLAYFAIR, in a lecture on the progress of obstetrics and gynecology, made the following pertinent remarks 'A man's skill as an operator depends on his brains and on his fingers, not on the letters he writes after his name. I know fellows of the College of Surgeons whom I would not trust to vaccinate a baby, and I know fellows of the College of Physicians to whom I would unhesitatingly confide any operation they chose to undertake, and, *per contra*, if I were asked to select as obstetric physician to a hospital between a man who was an M D. and F. R. C. P. Lond. whom I knew to be an inferior man, and a man who was a simple M. B. C. S whom I knew to be a superior man I would certainly select the better man of the two, irrespective of his qualifications"

SURGEON-CAPTAIN GRAYFOOT, I M S

SURGEON-CAPTAIN W B GRAYFOOT, I M S who has for the past nine years filled the important office of Secretary to the Surgeon-General to the Government of Bombay, has by the impartial and able manner in which he has conducted his very onerous duties, earned the esteem of the whole of the members of the Bombay Medical Services, with whom he is deservedly popular. The Civil and Military branches of Assistant Surgeons and Hospital Assistants have much to thank Dr GRAYFOOT for his urbanity and fair dealing, and we take this opportunity to express the gratitude of these classes to Surgeon Captain GRAYFOOT for all he has done for them.

IMPLIOT CONFIDENCE. INDIA TO THE FORE

THE Hyderabad *Chronicle* says that when the time came for decision as to who was to perform the operation necessary to Dr. LAWRIE'S fractured limb, Dr. LAWRIE, though surrounded by medical men of various grades and qualifications, selected DR. ABDUL HUSSAIN, the House Surgeon of the Afzulgunj Hospital, and entrusted his case to that gentleman's care and supervision "We do not think," remarks our Hyderabad contemporary, "that a greater tribute could have been paid to the skill of Dr. ABDUL HUSSAIN, and bearing in mind that the knowledge acquired by him has been purely local and only under Dr. LAWRIE'S tuition, the circumstance is alike creditable to master and pupil."

ANGLO-INDIAN SUCCESSES

AT the 1896-97 session examination for the admission of candidates to the Engineer and Telegraph classes of the Thomason College, Roorkee, 14 Anglo-Indians and 5 Indians passed successfully—Terence Bradley, Joseph Smith and Herbert Chesney, all Lucknow Martinière boys, took the first three places on the list [illegible] Anglo-Indians hail from the [illegible] Martinière, Ernest A Scott was the Don of this year 1896 at Roorkee. He won all the medals and the India Council Prize of Rs. 1,000 At the closing Roorkee session, the Don was J. B. Smith, the winner of the Thomason Gold Medal for the best engineering design, while Terence Bradley gained the Higher certificate and the India Council Prize of Rs. 1,000 Both hail from Lucknow Martinière.

A PROBABLE CAUSE OF ENTERIC AT MEERUT.

THE *Morning Post* says —"A startling discovery that may account for the presence of enteric among the troops him been made at Meerut A surprise visit made to the dairy of the 5th Dragoon Guards by the medical authorities disclosed the fact that the cows were feeding upon bhoosa with which stable refuse and other abominations had been freely mixed. Experiments with the milk for eight days subsequently showed that it was highly dangerous for human consumption, and it was all destroyed. It is small wonder that we have enteric in India, if this sort of thing is possible in every station."

THE INDIAN MEDICAL SERVICES IN PARLIAMENT.

CAPTAIN NORTON asked the Secretary for India when it was proposed to amend the Indian Medical Regulations, so as to insure that officers of the Indian Medical Service, who have no previous military experience, or at all events have not any lengthened period of experience in military duties, shall be made to pass a longer period for military medical training than two months in the office of a principal medical officer prior to being selected for promotion to administrative grade; whether any changes, and, if so, what changes in this respect had been proposed or recommended, and when they would be promulgated —Lord GEORGE HAMILTON said he was not aware of any proposals at present before the Indian Government to amend the Indian Medical Regulation in regard to the training of medical officers selected for promotion to the administrative grade

TREATMENT OF UTERINE MYOMATA BY REMOVAL OF THE OVARY

M. HOFMOKL (*La Semaine Medicale*) showed a woman, about 50 years of age, who had a myoma of the uterus so large that it could not be extirpated The right ovary was removed, the left could not be found Since then the uterine tumor has diminished greatly in size, the intestinal and vesical trouble have disappeared, and the patient feels very well The author has seen another similar case, and in a case published by M VON. MOSETIG-MOORHOF a simple laparotomy had the effect of reducing the size of the tumor to a considerable extent.

THE ANGLO-INDIAN CAUSE

The Mofussilite of Mussoorie says —' We gladly announce the welcome news that the first Anglo Indian Conference will shortly be held in Mussoorie, and delegates are invited from all parts of India to represent their different Associations and branches. At the last meeting of the Imperial Anglo-Indian Association at Calcutta it was unanimously resolved that Dr. JAMES R WALLACE, M D, F R C S, the sturdy champion and able advocate of this cause, represent that august body in Mussoorie We can promise him a fitting and cordial reception from our people here."

A CASE OF PLAGUE INFECTION

SAYS the *Indian Daily News*:—" A most instructive lesson is to be learnt in connection with the case of plague in British Indian Street, in which the sufferer was a European. We give the story as told us. Some time ago, a dog belonging to the patient brought up into his bed-room a rat it had killed and plumped it down upon the floor. His master at once threw the rat away The dog then licked his master's hand on which there was a slight abrasion, with the result that plague showed itself a few days after. If this story is true, it means that people must put themselves on their guard as far as their household pets are concerned."

SHORT ITEMS.

Among some of the measures that Brockey Smith has found useful in his surgical practice are mentioned: The prevention vomiting after an operation by placing a cloth wet with vinegar over the face or by spraying the nares with cocain for the relief of abdominal pain after celiotomy teaspoonful doses of hot water may be given, and hot water applied to the abdomen when this can be done without infecting the wound; to prevent the extreme thirst that follows operation the patient should drink water freely for three or four days before operation.

Marriage, according to Dr. Schwartz, of Berlin, is the most important factor in longevity. Of every 200 persons who reach the age of forty years, 125 are married and 75 unmarried. At sixty years the proportions are 48 to 22; at seventy years, 27 to 11; and at ninety years, 9 to 3. Fifty centenarians had all been married. The doctor asserts that the rate of mortality for husbands and wives between the ages of thirty and forty-five years is sixteen per cent., while that for unmarried persons is twenty-eight per cent.

"Personal Reminiscences of Syme" by Dr. Maclean, which appeared in the *Record*, was originally contributed to the *Medical Age* and has since been reproduced in other journals. We acknowledge with pleasure and thankfulness our indebtedness to Dr. F. W. Mann, M.D, Detroit, U. S A., the able Editor of the *Medical Age*, for his kind courtesy in permitting us to use the article in question, which has interested so many in India and Burmah.

The *Bengal Times* writes:—"If, then, plague has not reached Calcutta, Dr. Wallace has anticipated experience by revealing that fact, and by his revelation, calming and soothing fear and irritation. For this service alone, he has become entitled to public gratitude and to a recognition by Government, than which we can scarcely picture to our fancy a more gratifying appreciation. Public distinction has been conferred for services far less valuable"

The College of Physicians of Philadelphia announces through its committee that the sum of 500 dollars (£100) will be awarded to the author of the best essay in competition for the First Nathan Lewis Hatfield Prize for original research in medicine. The subject proposed is "A Pathological and Clinical Study of the Thymus Gland and its Relations. The competition is open to members of the medical profession and men of science in the United States.

Dr. Solomons, the Government Medical Officer of Anaradhapura, Ceylon, had been reported by a Mr. Bell for strange conduct, in that, when professionally summoned by Mrs. Bell one night, he had turned up in *deshabille* and in an unfit condition. The *Times of Ceylon* learns that Dr. Solomons has been recommended for dismissal by the P. M. O., his explanation not being considered satisfactory.

Dr. Hayman Thornhill, whose article on "*Anchylostoma Duodenale*" appeared in our 16th June number, desires us to state that his original article was published in the "Transactions of the Indian Medical Congress" It was from that volume that our epitome of Dr. Thornhill's article was made. The original was too lengthy, and we have in our epitome dwelt on such points as we thought most essential for scientific publication.

Dr. Sarat Mullick has been re-elected to the post of Resident Medical Officer to the London National Hospital for Diseases of the Heart and Paralysis. At the last meeting of the Board of Governors Dr. Mullick was cordially thanked for the ability with which he had performed his duties, and it was mentioned that this was the first occasion on which such a re-election had been made.

Surgeon-Colonel Stephen, P. M. O. in Assam, will officiate as Inspector-General, Civil Hospitals, in the Punjab, *vice* Surgeon-Colonel Raye, who takes leave on the 10th of August for eight months preparatory to retirement. Brigade-Surgeon Lieutenant-Colonel Calthrop, now on leave, will probably be appointed to Assam. It is believed Surgeon-Colonel Franklin will get the Punjab after Dr. Stephen has officiated there.

Surgeon-Colonel J. Sanadera, A.M.S., P. M. O., Line of Communication, Tirah Expeditionary Force, in recommending and forwarding for favor of transmission to the Political Department, Government of India, the application of Military Assistant Surgeon W. C. McMillan for an appointment in the Political Department, says:—"This Warrant Medical Officer will be of much use politically, having mastered six Oriental languages and also medically in the Foreign Department."

A Government enquiry is to be held as to the causes which have led to the existing prevalence of enteric fever at Utacamund. Surgeon-Major H. Thomson, Assistant Sanitary Commissioner, Madras, is engaged in the investigations. Much discussion has taken place as to the true cause, very widely divergent opinions being held, and by some Government is blamed for having lowered the level of the lake.

The annual meeting of the Brussels Medical Graduates, Association took place at the Cafe Royal, Regent Street, London, W., on Tuesday, 12th July, at 6-30 P.M., and was followed by the annual dinner at 7-30 P.M. Any Brussels medical graduate desiring to be present at such meetings should communicate with the Honorary Secretary, Dr. Major Greenwood, 248 Hackney Road, London, N. E.

It is estimated that only 900 persons out of 1,000,000 die from old age, while 1,200 succumb to gout, 18,400 to measles 2,700 to apoplexy, 7,000 to erysipelas, 7,500 to consumption, 48,000 to scarlet fever, 25,000 to whooping cough, 30,000 to typhoid and typhus, and 7,000 to rheumatism. The averages vary according to locality, but these are considered accurate as regards the population of the globe as a whole.

Mr. Charles A. Spooner and Mr. Vivian Roberts, both of Bombay, have got through the L R C. P. & S. Edin., and L. F P. S. Glas. qualifications and are now coaching with Dr. Kenneth Campbell in London for the next examination for the Indian Medical Service. We heartily wish them success.

Dr. Llobet draws attention to the great alimentary value of the expressed juice or extract of young and tender maize. It has the advantage over wheat in that it contains a much larger proportion of fats, proteids and salts (which give it decided diuretic properties) are also in good proportion. He proposed to call this preparation "vegetable milk."

The most curiously decorated graves in the world, perhaps, are those of the natives in Zululand, Africa. Some of these mounds are garnished with the medicine bottles used by the departed in their final illness, and the duration of the malady and skill of the physician are indicated in a measure by the number of bottles.

A hedge doctor (a quack) in Ireland was being examined at an inquest on his treatment of a patient who had died. "I gave him ipecacuanha," he said. "You might just as well have given him the aurora borealis," said the coroner. "Indate, yer honor, and that's just what I should have given him next, if he hadn't died."

A decree has just been issued in Russia permitting women physicians to enter the Government service. By this fact women in Russia have won an important privilege. The Government service carries with it extremely liberal pensions. It is expected that this will be the forerunner of other extensions and of privilege to women.

A man in the car was telling how good his doctor was "Clever?" said he; "well I should say he was. The other day I called him in when I had swallowed five cents. He said if the coin was not counterfeit it would pass and made me cough up two dollars."

The *Progres Medical* cites the case of a Jersey woman who gave birth to a daughter at two o'clock in the evening of 31st December 1897, and to another one about two o'clock in the morning of 1st January 1898, thus making the twins born in different years.

A measure is just being discussed before the German Reichstag, whose purpose is the prevention of the spread of venereal disease. Any one found guilty of having communicated a venereal disease to another shall be punishable by fine and imprisonment.

Veitch records an interesting case of mal-development of the generative organs in a girl aged 22. The uterus was rudimentary—about the size of a pea—while the vagina was of ordinary depth and fairly capacious. Ovaries and tubes could not be detected. The mammæ were absent.

Surgeon-Lieutenant-Colonel C. J. H. Warden, Medical Storekeeper, Bengal Command, receives the acknowledgments of the Government of India for his work in connection with the preparation of plague prophylactic serum in Bombay.

The liver described consisted of 16 lobes separated by deep fissures. It was but little enlarged, the right and left lobes being sub-divided into several smaller lobes. The possibility is suggested of confusing such an organ with growths in the liver, especially if the liver is much enlarged.

A petition has been presented to the House of Lords by the Pharmaceutical Society of Ireland praying that limited companies of unqualified persons should not be permitted to engage in any calling for which personal qualification is necessary.

A woman, 64 years old, swallowed half an ounce of laudanum. Vomiting was induced in 45 minutes by means of mustard-water. After this she was given hypodermically ½ grain strychnin and a solution of potassium permanganate. Recovery was prompt.

Of the seven great physicians of what has been called the "later Victorian Era"—namely, Sir William Jenner, Sir William Gull, Sir Richard Quain, Sir Andrew Clark, Sir Spencer Wells, Sir Oscar Clayton, and Sir James Paget—only two, the first and last named, now survive.

A German doctor, who has been collecting information about the habits of long-lived persons, says that the majority of those who have attained old age indulged in late hours—that is, they retired after midnight and remained in bed late in the morning.

Sunday's returns of the plague show that the coverts were again drawn blank. Really this absence of plague on Sundays is almost attaining the proportions of a phenomenon; in fact, we know of nothing so mysterious on this side of India except the Barisal guns or the reasons of an appointment.

In his report of the 1st July 1898, Mr. R. T. Greer, C.S., the popular Chairman of the Calcutta Municipality, acknowledges that of the cases reported up to the 31st May as cases of real plague, eight of these have been proved to be *not* cases of plague.

Surgeon-Colonels Warburton and Price and Brigade-Surgeon Lieutenant-Colonel Bourke are appointed Honorary Surgeons to the Viceroy, *vice* Cunningham, Atkins and Edge, vacated.

Archer William Ross Cochrane, B.M., Lond., L.R.C.P. Lond., (Surgeon-Lieutenant, I. M. S. Bengal), and Hormasji Manekji Masina, L.M. & S. Bombay, Grant Medical College, Bombay, have passed the examination for the F.R.C.S. England.

Authorities differ as to the rate of growth of the human hair, and it is said to be very dissimilar in different individuals. The most usually accepted calculation gives six and a half-inches per annum.

A "cute Yankee" has hit upon a novel method of protecting his cashbox from marauding fingers. He sprinkles the box with a powder which has the peculiar effect of dyeing the skin blue, the color being merely intensified by washing.

Schatz records six cases in which the secretion of milk was increased by means of massage of the abdominal walls, and he endorses such a procedure, claiming that it is infinitely superior to the administration of galactogogs.

The champion tennis player in Assam is a young European gentleman who has never been out of the country and whose father was at one time an uncovenanted medical officer on the Bengal List.

No parental care ever falls to the lot of a single member of the insect tribe. In general, the eggs of an insect are destined to be hatched long after the parents are dead, so that most insects are born orphans.

The European medical students from India and the Colonies attending Guy's Hospital London, dined together last month at the Holborn Restaurant, and intend to make the event an annual one.

The new French law on accidents to workpeople provides that the drugs and medicines, as well as doctors' fees, shall be paid for by the employer.

Surgeon-Captain Armstrong, Residency Surgeon, Nepal, goes home on three months' leave, and Surgeon-Captain Grant from Mount Abu officiates for him.

Dr. John Barton, F.R.C.S.I., was on Thursday, 9th June, elected Secretary of Council, Royal College of Surgeons, Ireland, in room of Dr. R. H. Woods, F.R.C.S.I., resigned.

Mr. Alfred McCabe-Dallas, B.Sc., of Assam passed the second Conjoint Examination of the College of Physicians and Surgeons, London, from Guy's Hospital.

Professor Haffkine, C.I.E., is not only an eminent chemist and Pasteur Institute bacteriologist, but possesses the degree of Doctor of Science.

The tea estates in Assam up to date have been practically free from cholera. Dysentery, fevers, and simple infectious ophthalmia have however been very prevalent.

Among the next competitors for the I.M.S. in August, several are Anglo-Indians, who completed the whole or part of their curriculum in this country.

A neat little brush is attached to the tail of the glowworm, and it is used to keep clean that part of the insect from which the light gleams, so as to make it more distinctly visible.

Only one person in fifteen has perfect eyes, the largest percentage of defectiveness prevailing among fair-haired people.

At the last meeting of the Rangoon Municipal Committee, it was decided to send a Health Officer on deputation to study the plague in India without Government help.

Miss Dorothea Caine, daughter of Mr. W. S. Caine, ex-M.P. has taken the M. D. Degree at London University.

Messrs. Parke, Davis & Co. have established a $500 fellowship in the University of Michigan at Ann Arbor.

Very many short sighted people have prominent eyes.

VITAL STATISTICS OF CALCUTTA.

Statement of Deaths from Principal Diseases in Calcutta during the week ending 11th June to the 9th July 1898.

Week ending.	Cholera.	Plague.				Small-pox.	Fevers.	Bowel com-plaints.	Also other diseases.	Total.	Total population, according to the census of 1891.	Ratio per 1,000 of population per annum.
		Sporadic.		Epidemic.								
	Sporadic.	Seizures.	Deaths.	Seizures.	Deaths.							
11th June ...	14	...	...	...	...	2	88	51	195	345	8,81,560	20·4
25th June ...	12	...	...	...	...	1	63	56	180	312	...	23·8
2nd July ...	9	23	20	...	...	3	55	47	132	266	...	20 3
9th July ...	2	16	10	...	...	1	58	41	131	243	...	18·6

Current Medical Literature.

MEDICINE.

Pyrexia a Defensive Mechanism.

A FEW years ago, much was hoped from the antipyretic drugs such as antipyrin, phenacetin, &c., and had it been proved that they really benefited the fever patient, it would have been a strong argument against the present view that pyrexia being like phagocytosis or chemiotaxis, in some way harmful to the fever-producing micro-organisms or their toxins, is a defensive mechanism, but the reverse is the case, and while at the Bristol meeting of the British Medical Association, speaker after speaker insisted that it did more harm than good to treat the pyrexia of fever. Dr. W. HALE WHITE points out that those *few* fevers, that are treated by agents that lower the temperature are, in truth, instances of the exception proving the rule; since ague, syphilitic fever and rheumatic fever, for instance, are treated by quinine, mercury and salicylates respectively. The temperature falls and the patient is better, not because these drugs are antipyretics, but because they are specifics for these diseases respectively and destroying the pyrexial agent remove the cause of the fever. Had the case been otherwise, other antipyretics would be equally efficacious, which they are not He also thinks the view incorrect that the cold bath does good by lowering the temperature in typhoid fever, since it also diminishes the delirium, the tremor and the prostration, and enormously increases the elimination of toxic products, in any of which ways it would do good by increasing the urotoxic co efficient to five or six times the normal, and as the hypertoxity diminishes, the general symptoms mend and the temperature falls, so that when the period of pyrexia has fled and convalescence sets in, the elimination of toxins ceases, because the pyrexia has destroyed the organisms and the excretory processes have removed the products of their decomposition.—*The Lancet.*

Cancer a Contagious Disease.

IN his recent *These de Paris*, Dr. LEON NOEL points out that insects seem to have a certain predilection for arboreal cancer, which is a malignant vegetable tumour found in woods and orchards and bears a certain relation to cancer of man. He notes that there is a certain mortality from cancer among persons who dwell in forests, and that it is a well-known fact that country laborers are predisposed to cancer and traumatism, scratches from bushes, etc., bear considerably on the etiology of this disease. Cancer of the lip does not exist at Lyons, and all who go into hospital there to be operated on for malignant growths on the lip, come from the fields, orchards and woods. Insects, he finds, not only carry infective material from tree to tree, but also disseminate it into human food. Large numbers of protozoa live on insects in the form of saprophytes which gorged with infective material infest fruit, flowers and cereals, or are washed down into the forest streams, so that any of these could act as the medium of transport for cancer which may thus be propagated by food and by the fingers to affect the alimentary tract or any external portion of the body. These conclusions seem hypothetical, but they merit further observation.—*Brit. Med. Jour.*

Diagnosis of Diabetes from Stained Specimens of the Blood.

LUDWIG BREMER describes a simpler method than the one which he originally proposed. A drop of blood is spread over a third or half a slide, and is then exposed to a temperature of about 135° C. for six to ten minutes. As this latter part of the procedure is important, it is discussed in detail. A temperature of 140° should not be exceeded. When the thermometer registers 130° the gas flame should be taken away from the oven. The optimum of temperature lies about 135°, and below 129° the test becomes unreliable. The slides are then placed in suitable dishes containing the stain. A control specimen must always be made. The soda methylene blue preparation first used by the author is difficult to make and unreliable Congo red, methylene blue, Biebrich scarlet, and the Ehrlich-Biondi stain all give excellent results The first three are used in 1 per cent. watery solution. After an exposure of one and a-half to two minutes to Congo red the diabetic blood is either not stained at all or only indifferently so, while the non-diabetic blood is colored red. Methylene blue acts in an analogous way, but Biebrich scarlet stains the diabetic but not the non-diabetic blood. Ehrlich Biondi's stain colors diabetic blood orange and non-diabetic blood intensely violet. Very successful specimens can be made if a contrast stain is used. Thus specimens may be stained with a 1 per cent. watery methyl green for one and a-half to two minutes, when both specimens appear green, but especially the diabetic blood The counter-stain is a 1 per cent. watery eosin applied for eight to ten seconds. The diabetic blood remains green, but the non-diabetic stains red. Many other stains are mentioned, but the results obtained with them are not so good. The specimen may be taken out of the stain, so that the staining can be controlled. Rapid washing and then drying are desirable. Whether the difference in reaction is due to the different alkalinity of the blood must still remain an open question.—*Brit. Med. Jour.*

Rheumatism in Children.

RHEUMATISM being one of the diseases manifesting peculiar clinical characteristics in young children, not observed in adults, emphasis is placed upon the essential variations and necessity of their recognition.

Mistakes in diagnosis of acute rheumatism in the young are frequently due to the absence of symptoms of arthritis, acid hyperidrosis, and pyrexia.

Arthritis is at a minimum; but endocarditis, pericarditis, and chorea are at a maximum; while pleurisy, tonsilitis and vaso-motor and hemorrhagic phenomena are more common, tending to decline after puberty.

The various phases of this affection tend to arise independent of and apart from one another. Endocarditis and pericarditis, often with no warning, are usually rheumatic; if with chorea, fibrous nodules, tonsilitis, pleurisy, erythema or purpura, whether recent or at intervals extending over months or years, they are almost certainly rheumatic in origin.

As the risk of cardiac complications in a rheumatism is in inverse ratio to the age of the patient, the heart should always be examined carefully, even in the absence of all other rheumatic symptoms.—*Archiv. of Pediat.*

SURGERY.

Extraction of a Bullet from the Brain with the help of the Roentgen Rays.

TWO years after he had been struck in the *right* temporal region by a revolver bullet that had passed into the cranial cavity and located itself in the brain substance on the left side of his head, a lad, æt. 18, suffered such intense and almost intolerable headache for which he consulted BRAATZ who examined him with the Roentgen rays, which disclosing the foreign body at the level of the zygomatic arch and a little in front of the external ear the left temporal region was trephined and the dura incised and raised from the surface of the brain but without success, as the operation had to be hurried through, in that the anæsthetic very seriously affected the patient's breathing. The headache vanished but returned so badly, a fortnight after a second attempt had to be made to extract the bullet. After its surface being exposed by opening up the old wound, the brain was explored with a blunt needle which, passing inwards and downwards for about *two inches*, struck against a hard substance. Dividing the brain tissue along the track of the needle with a blunt knife, BRAATZ used an artery forceps to pull out the foreign body, which was shattered bullet weighing about 41 grains. The patient made a very quick recovery.—*Central Chir.*

Abdominal Section in cases of Prolonged Vomiting.

A WOMAN, æt. 44, stated that for the past 18 years she had ineffectually tried all manner of treatment to prevent her daily vomiting up all her food at irregular intervals. Dr. NAYLOR, of Hobart, Tasmania, kept her under observation for some months and as he had unsuccessfully tried lavage and several other methods of treatment, he concluded there was pyloric obstruction and recommended pyloroplasty or gastrojejunostomy according to the nature of the obstruction.

Performing laparotomy in the usual manner he found the pylorus deep down and adherent to the liver, but the stomach, which was empty and flaccid, was not at all enlarged, though it was so tied down by several adhesions to the bowel below that it could only be drawn slightly forward. The greater part of the stomach was liberated by separating these adhesions; but the pyloric end was left adherent to the nether surface of the liver. The woman made an excellent recovery and the vomiting trouble ceased. Dr. NAYLOR thinks that the sickness was caused by the adhesions tying the stomach down above and below and producing spasmodic vomiting and tightening or constriction of the pylorus.—*The Lancet.*

Origin of Circumcision.

AT a recent meeting of the Anthropological Society of Paris, M. LETOURNEAU said that the ritual of phallotomy had its origin and became extended as an act of homage to the deity. Just as the blood or fingers or the hair was offered as a sacrifice by the early Christians, so also was circumcision, which is so inseparably connected with the religion of the Jews and Mahomedans, a symbol of complete sacrifice that is still very widespread, but has become partial by the lessening rigor of morals. The Egyptians circumcised those they vanquished, and the custom still obtains among the Abyssinians. Every warrior who kills an enemy presents his chief with a bloody prepuce, which is returned to him at the close of the 'triumphal ceremony' to be taken home, cured and preserved as trophies as the American Indians do the scalps they wrest from their foes. That this prevailed among the early Hebrews is proved by King SAUL telling the son of Jesse that he would have to bring in the foreskins of 100 Philistines before he would accept him as his son-in-law.—*La Nature.*

Recent Experiences with Cataract Operations.

AT the recent Moscow Congress, KNAPP of New York reported 1,050 cataract operations, of which 460 included all complicated cases. The method of operation was usually a simple extraction without iridectomy, and the incision at the border of the transparent cornea almost half its extent. The capsule was opened with the cystotome to the extent of 5 or 6 mm. in the upper part of the iris, so that the torn pupillary edge of the iris and the wounded capsule should not touch. Pressure at the lower part of the cornea easily delivers the lens, but contact of the border of the lid and the corneal wound should be avoided. Both eyes are bandaged afterward and the dressing changed after twenty-four hours, when any prolapse of the iris can be disposed of. Reaction of an inflammatory nature was limited to six cases of slight iritis, two cases of partial wound infection and four cases of purulent infection of the cornea. In 355 operations prolapse of the iris occurred fifteen times (7·6 per cent). and was successfully treated by iridectomy. Secondary operations were done in 40 per cent. of the cases. In three cases glaucoma following discission was observed. Recovery was obtained by means of iridectomy, eserin and morphin. In the last 400 cases good vision was obtained in 93 per cent., fair in 4·5 per cent., and total failure in 2·4 per cent.—*Archives of Ophthalmology.*

Coley's Fluid in Inoperable Tumour.

MR. W. H. BATTLE showed a man, aged 30, who had had syphilis six years previously. Four months before admission he noticed a lump under his right arm accompanied by pain, and soon followed by other swellings. Movement of the arm was difficult and it became swollen. Just before admission a lump formed above the right clavicle and another over the ride side of the sternum The swelling above the clavicle was caused by the pushing forwards of the pectoralis major by an elastic tumour of considerable size and irregular shape, which was fixed to the deeper parts but did not involve the pectoralis In the axilla were numerous enlarged glands of various sizes Iodide of potassium in increasing doses was given, but did not effect any improvement, so on 5th January portions were removed from the sternal and subclavicular growths, which proved on examination to be fibro-sarcomata containing giant cells. Thereupon he gave half-minim doses of Coley's fluid every other day from 21st January to 21st March, the iodide mixture being continued until 6th March. The dose was then raised to one minim every other day. The man had greatly improved in general health, and now presented only two swellings, one over the site of the sternal tumour and the other under the clavicle, both being comparatively small. He commented on the absence of any reaction, the temperature having been normal throughout.

Cyst of the Pancreas.

THOREN publishes a second case under his care. The first appeared in the Swedish paper *Hira*, 1893, p. 99, and is noted in abstract in HEINRICUS'S monograph on Cysts of the Pancreas, in *Langenbeck's Archiv*, Vol. liv, 1897, p. 456. The patient was 52. The tumour filled the left hypochondrium; it was fixed to the parietes, and drained. In THOREN'S second case the patient was 20. A large tumour filled the left side of the abdomen, not apparently reaching to the left ribs, whilst the pelvis was free. The colon lay in front of the tumour. At the operation a cystic tumour springing from the left side of the pancreas was discovered; it was fixed to the abdominal walls and drained. Several solid masses sprang from its inner wall, and one was partly cut away with a piece of the wall for examination. The wall contained muscular fibre. Traces of the same tissue were also detected in the solid masses, mixed with round cells and numerous giant cells of varied outline.—*Brit. Med. Jour.*

OBSTETRICS AND GYNECOLOGY.

Case of Dead Twin retained to Full Term.

On 2nd March I was sent for to attend a multipara, thirty-two years of age. On arrival I found that a healthy girl, weighing 7 lbs., had been born about twenty minutes and the placenta had been expelled naturally. The nurse produced a small dead foetus which had come away with the placenta. It measured 3½ins. in length when fully extended and the occipito-frontal diameter of the head measured 1½ in. It had been squeezed quite flat, so that the body was not more than ½ in. thick and the head was still less. It was enclosed in a membrane which could be peeled off it, but the fluids had escaped. There was a small placenta and an umbilical cord 1½ in. in length. The head was rotated backwards and the spine folded down. The mother, whose last child is six years old, is very delicate, suffering from apex systolic murmur and floating kidney. She complained of great pain in the uterus during the pregnancy, and was at times unable to get out of bed for days together.—WALTER C. HEARNDEN, M.R.C.S. Eng., L.S.A., in *The Lancet*.

Comparative Study of Ether and Chloroform in Parturition.

H. HENSEN announces that the superiority of ether over chloroform for the narcosis of parturients resides in the fact that while both suppress the action of the abdominal muscles, the effect of the ether rapidly passes away and the uterus resumes its contractions in five to twenty minutes, while the effect of chloroform is felt for a couple of hours, preventing contractions and thus postponing the expulsion of the fetus and favoring hemorrhage from atony of the uterus. His numerous tests with primiparæ and others, covering several years, were made with a bulb in the uterus connected with a barometric tube. He found that the energy of the uterine contractions increases progressively till the rupture of the bag of waters; to subside then until after the expulsion of the fetus, when the pressure increases again to reach its highest point, a remarkable phenomenon which may be due to the increase of thickness in the uterine wall at this moment. He found that five milligrams to two centigrams of morphin have no effect upon the contractions of the uterus and of the abdominal muscles.—*Sem. Med.*

Extra-uterine Pregnancy Lasting Twenty-three Months.

A FULLY developed fetus was exhibited at a recent meeting of the Brussels Anat Path. Society, which had grown in the tube, in which also the placenta was inserted. After the rupture of the tube the fetus had passed into the abdomen where it had contracted adherences with the intestines and peritoneum.—*Presse Med.*

Precocious Maturity.

THE process of menstruation was noticed by TOWNSHEND in a girl of 12 months' old, weighing 28 lbs. and 30 inches in height. Her breasts were large and the pubic hair 0·25 inch long; but her nipples were not developed. She weighed 9 lbs. at birth, cut her first tooth at 4 months, and at 12 had 7 incisors. Her breasts began to enlarge at the age of 8 months, and blood issued from her vulva at 6 months, since when it had been 'regular' every 5 weeks.

MOSER, *British Medical Journal*, tells of another case who menstruated at 9 months and was "quite regular." At 15 months she was 32·5 inches high; weighed 36 lbs; her breasts were very well developed; the nipples large with a dark pink areola, and the cervix and uterus could be plainly made out on digital examination.—*Bost. Med & Surg. Jour.*

Vomiting of Pregnancy

HAS often proved obdurate to numberless remedies; but PORRI reports good results and permanent improvement without unfavorable concomitants, by injecting 0·17 grain of cocain into the epigastric region once or twice daily immediately before meals. He notes also that the internal administration of cocain is useless.—*Gaillard's Med Jour.*

Bicycle and Gynæcology.

FAUQUEZ lays down rules for the use and disuse of the bicycle, a full memoir on the subject having appeared in the *Journal des Connaissances Médicales*, 20th August 1897. He maintains that the bicycle is to be recommended in cases where complete normality of the genital tract exists, for the relief of anæmia, dyspepsia, neurasthenia, sterility, obesity, deferred appearance of the catamenia in young girls, and in menopause troubles. The bicycle is a therapeutic agent in simple uterine congestion, in amenorrhœa due to imperfect development of the uterus and ovaries, or to other causes involving simple debility, including nerve shock; in nervous and congestive dysmenorrhœa; in simple deviations of the period, such as a supplementary show between the normal catamenia; and in cases of fibroid when all hæmorrhage has ceased. The bicycle is allowable in mechanical and membranous dysmenorrhœa; in displacements and flexions; in mild and painless cases of chronic metritis after labor and abortion; and in the leucorrhœa of anæmia. Lastly, the bicycle must be absolutely forbidden in amenorrhœa associated with phthisis, cancer, diabetes, organic disease of the heart, and albuminuria and organic renal diseases; in metrorrhagia or excessive menstruation; in acute metritis, perimetritis, salpingitis, ovaritis, pelvic abscess, and parametritis; in hæmatocele and bleeding fibroids; and, lastly, in vulvitis and vaginitis not thoroughly healed.—*Brit. Med. Jour.*

Perforation of the Uterus during Sounding or Curettage.

JAHRREISS and GLAESER, in papers on the above subjects, record three interesting cases of this accident. The former while curetting the uterus in two instances, felt the instrument suddenly disappear upwards, but was unable to satisfy himself that the curette had entered a dilated Fallopean tube. Although in one case there was sharp hemorrhage following the accident, both patients made good recoveries. In another case he was conscious of perforating a senile atrophied organ with the sound, and subsequent symptoms—slight elevation of temperature, localised peritonitis, and meteorismus—served to confirm his fears. Celiotomy was performed on the fourth day, but no wound of the peritoneum could be discovered, the site of the perforation presenting only an inflammatory redness and thickening.

GLAESER'S case was one of metrorrhagia continuing for three months after child-birth. In order to determine the direction of the uterine canal, the cervix was steadied by a tenaculum and a sound introduced. Without the least pressure having been made, the instrument glided upward as far as the handle. Fearing untoward results, total vaginal hysterectomy was at once performed. At the apex of the removed uterus, near the left tubal insertion, four contiguous perforations were to be seen, two of which were united by a laceration. The surrounding tissue was "mushy," and comparable to "goosefat" in consistency.

[NOTE.—These cases, as also the several similar ones recently reported, teach the exceeding care with which all manipulations with sound or curette should be conducted. In most instances of uterine perforation more force has been exerted in using the instrument than the operator is conscious of. While considered one of the simplest of gynæcological operations, uterine curettage should not be lightly undertaken, especially by one unaccustomed to the use of instruments.]—*Med. Age.*

PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

Origin of Blood Coagulation in Living Tissues.

"In Regard to the Morphology of Extra-vascular Coagulation" is the title of an article written by Professor ARNOLD, of Heidelberg, in the *Archiv. fur Pathologische Anatomie und Physiologie und fur Innere Medicin*, Band 150, Heft 3.

ARNOLD describes the different microscopical changes which take place in extravasated blood inside of the animal body. One colored plate is added to the paper, showing the changes that take place in the blood-corpuscles and fibrin. ARNOLD thinks that the main cause of coagulation is not by the white cells, as is generally believed, but by the red corpuscles. Coagulation is a very rapid process, and in its early stages no changes can be seen in the white cells. The erythrocytes, however, discharge a visible substance and are broken up as rapidly as the fluid becomes solid. If one or both have the power to transform the fluid, most probably it will be the one which adds a substance to the coagulating material. ARNOLD does not deny the great activity of the white cells, and admits that perhaps a coagulating ferment may be discharged by them. As the changes in the leucocytes become apparent only after coagulation has begun there are no visible proofs for their causative influence.—*Med Age*

The Constituent of the Suprarenal Capsule which Raises Blood Pressure.

IN the *Johns Hopkins Hosp. Bull*, BALTIMORE, ABEL and CRAWFORD contribute an article on this subject SCHAFER and OLIVER and other physiologists have shown that a very small quantity of an aqueous extract of the medullary substance of the suprarenal gland raises the blood pressure to a great height above the normal. It also revives a heart which has been severely poisoned with, for instance, chloral hydrate. BATES (*New York Med Jour*) found that its application to the eye caused marked constriction of blood vessels and pallor. He uses it in prolonged operations to prevent hæmorrhage and to indefinitely prolong cocaine anæsthesia. These watery extracts are mixtures of several unknown substances. After reviewing previous attempts to obtain the pure active substance which the authors think may prove to be of great therapeutical value, they describe their method of obtaining it as a benzoyl compound. Split off from the benzoyl, it appears to be an alkaloid closely allied to the pyridine bases or to the pyrrol compounds (these bodies are known to raise the blood pressure very markedly). It is therefore most probably an alkaloid of comparatively simple chemical constitution. Its sulphate is crystalline, and is physiologically very active. Pyro-catechin cannot be split off from it, and as they were unable to positively detect pyro-catechin in the gland, they consider MUHLMANN'S statement as to its being the constituent which influences blood pressure as incorrect. Tracings of its effect on blood pressure are given.—*Edin. Med. Jour.*

Locomotor Ataxia.

PHILIPPE has contributed a well-illustrated study, from anatomico-clinical stand-point, of the medullary localisations in this disease. He first considers the topography of the lesions, after a new architecture of the posterior columns. He rejects all the methods of determination, except that of secondary degeneration. His arrangement can be easily followed by a reference to his figures. He then discusses the histological nature of the tabetic processes, classifying them as interstitial and parenchymatous. The former he regards as entirely secondary to the latter, which is the primitive change. It affects the posterior roots and posterior columns, but leaves the intervertebral ganglia intact. The change affects the myelin sheath, bringing about a segmentation and granular degeneration, resulting [illegible] the nerves are not multiplied, [illegible] axis cylinder was not determined. [illegible] or less intact for a long time. [illegible] two types, the benign and the severe. In the latter [illegible] is in the cord, resulting in very rapid destruction of the [illegible] nous zones of the posterior columns, both ascending and descending. In the former, on the other hand, the [illegible] is in the posterior roots, outside the cord, and has little tendency to spread. It is these that especially exhibit pains, while numbness and tingling indicate rather an affection of the cord. Motor inco-ordination does not necessarily follow a lesion of the "bandelettes externes."—*Edin. Med. Jour.*

Ichthyosis and Arterial Atrophy.

MM. GASTOU and EMERY furnish an interesting contribution to the pathology of ichthyosis in the *Journal de Clinique et de Therapeutique Infantiles* of 24th March 1898. The disease, as observed by them, occurred in two children aged respectively twelve and ten years, and was of the granular variety, each hair being the centre of a minute horny plate. Their father was troubled with the same condition of skin and he, two years before the birth of the elder child, had syphilis. The most interesting feature about these cases, however, is that they exhibited a conjunction of ichthyosis with marked arterial attenuation as expressed in a hardly perceptible thready pulse in both radial arteries with cyanosis of the extremities. This peculiarity has also been noted in ichthyosis by M. VARIOT. MM. GASTOU and EMERY regard both the skin disease and the arterial shrinking as evidences of a common dystrophic change—possibly in these cases related to the parental syphilis but not necessarily dependent on this cause as a rule. They note another case in which the same condition of skin and blood-vessels was observed by them and in which the underlying hereditary taint was that of tubercle, and they believe that alcoholism and other hereditary disorders exercise the same influence.—*The Lancet*

Staining of the Amœba Coli.

THE amœba coli is difficult to recognise, except in the discharges, and then only when in a living condition, and it does not stain by the ordinary basic nuclear stains, such as methylene blue. MALLORY (*Jour. of Exper. Med*, ii., 1897, p. 529) suggests the following methods, which he states give a differential stain, rendering the recognition of the parasite certain:—

I. For sections (liver, intestine, hardened dysenteric discharges, etc.)

(*a*) Fix tissues in alcohol.
(*b*) Stain sections (paraffin) in a saturated aqueous solution of thionin for 5-20 minutes.
(*c*) Wash in water.
(*d*) Differentiate in a 2 per cent. aqueous solution of oxalic acid for ½ to 1 minute.
(*e*) Wash in water.
(*f*) Dehydrate in 95 per cent. alcohol.
(*g*) Clear in oil of bergamot.
(*h*) Wash with Xylol and mount in Xylol balsam.

The nuclei of the amœbæ are stained brownish red, other nuclei blue. Coverslip preparations proved a failure.

II. Unna's differential stain.

(*a*) Harden in alcohol.
(*b*) Stain sections in Unna's polychrome methylene blue solution (Grubler's) ½ hour all night.
(*c*) Decolorise and differentiate in a small dish of water, to which are added a few drops of Grubler's glycerin-ether mixture.
(*d*) Wash well in water.
(*e*) Alcohol, oil of bergamot and mount as in I.

This may give better results with the thionin.—*Path. Journ.*

[illegible] AND VACCINATION.

The Case for Vaccination.

We [illegible], especially of those members of our profession who are engaged in the public health service, to the letter addressed to us by Dr. Smith, the indefatigable Secretary of the Jenner Society. It is quite true, as he says, that in the vaccination controversy most of the talking is done by one side—that which deems Jenner to be a charlatan and vaccination a "filthy rite." Their letters and pamphlets, which constantly go over the same ground, teem with unverified assertions and are often disfigured by unwarranted abuse of the medical profession. Occasionally here and there a medical man ventures to give utterance to what he believes to be the truth based on his personal experience and on the accumulated facts of a century of vaccination. He often suffers for his well-meant temerity; for we know of hardly any subject in which personal vilification has more frequently sufficed to take the place of argument. It is too much to expect that any professional man should subject himself to such attacks at the hands of persons whose zeal outruns discretion and even decency of debate. Nor can we expect the Jenner Society to successfully deal with the multitudinous onslaughts that are now being made upon the practice it was founded to promote. Therefore it would be well for those who have the care of the public health—who are well informed upon the question as to the utility of vaccination and who could readily meet the arguments advanced against it—to descend into the arena. On the other hand, it would not surprise us to learn that strong as is the opinion held by the vast majority of the profession upon the benefits which vaccination has conferred upon mankind, there may well be a feeling of indifference to active propagandism of their views. Even the love of humanity may be chilled by the violent language with which the actions prompted by it are received; and so far as compulsion in the enforcement of a medical prescription is concerned, there are few medical men who would support it were it not that they know its value. Nor does the question of "compulsion" or "no compulsion" necessarily enter into the sphere of the medical man's action. That is a political measure—a procedure adopted by the State deliberately with the intent of safeguarding the people so far as is possible from a disease which was once so common but which, owing to vaccination, has declined in intensity and extent.—*The Lancet.*

Syphilis and Prostitution.

WERNER, in the *Monatschrift fur prakt. Dermatologie*, Vol. xxiv, Nos. 4, 5, refers to the subject of syphilis in the children of prostitutes. His observations were made in the general hospital of Hamburg, where account was taken of all the children born of prostitutes. Of 185 mothers, 53 had never had syphilis, but the remaining 132 were suffering or had suffered from the disease in its various stages. These mothers had 243 children, of whom 25 soon passed from observation. Of the remaining 218, 135, or 62 per cent. died within the first twelve months. Of 51 children of uninfected mothers, 29 died, or 57 per cent. Of 167 children whose mothers were syphilitic 106, or 73·5 per cent. died. Of these 167 children, 30 remained free from congenital syphilis, 77 were diseased; of the former, 46, or 61 per cent. died; of the latter, 60 or 78 per cent. died.

The investigation thus revealed a very high death-rate among the children of prostitutes, even when they were not the subject of syphilis.—*Phil. Med. Jour.*

Age of Parents and its Influence on their Progeny.

JANOSIK has brought an interesting subject under the notice of the Director of the Hungarian Statistic Bureau, wherein he says that recent investigations prove that the offsprings of a parent between twenty and twenty-five are likely to be weak and sickly, but between twenty-five and forty-five years strong. The mother has most robust children between twenty-five and thirty-five. More healthy children are born when the mother is about ten years younger than the father—10 per cent. more favorable than when about same age.—*Gaillard's Med. Jour.*

Milk Contamination.

IN the *Journal of Comparative Medicine and Veterinary Archives* for April, Dr. M. P. RAVENEL points out that the chief sources of contamination are (1) the animal; (2) the hands of the milker; (3) the dust of the stable. In regard to the first, he recommends keeping the udder of the cow, the inner side of the legs, and the belly clipped, and well brushing and wiping of the parts with a wet sponge before milking, as the moisture serves to hold in place those germs that have escaped the brushing. Careful washing of the hands and a frequently laundered blouse or linen duster are recommended for the milker; a separate milking room, where possible, and under other circumstances cleanliness of the stable and the avoidance of stirring up dust before milking from the third precaution. The "fore milk" (first milkings) should be discarded, and the practice of lubricating the teats and the milker's hands therewith is especially condemned; vaseline, if requisite, should be used in place of it, as this helps to fix the germs. Care to exclude dust and maintenance of a low temperature are the principal precautions to be observed subsequently, while the vessels into which the milk is drawn should be steamed or boiled. Glass vessels are especially commended. Pasteurization—*i.e.*, a partial sterilization, the degree of heat employed being sufficient to kill all except spore-bearing (*e.g.*, anthrax, tetanus, etc.) germs—is insisted on; this is effected by heating the milk to 138°F. and keeping it at that temperature for twenty minutes.—*N. Y. Med. Rec.*

Physician not held to Standard of Infallibility.

THE law does not require of a physican or surgeon absolute accuracy, either in his practice or his judgment. The law does not hold physicians and surgeons to the standard of infallibility, nor does it require of them the utmost degree of care or skill of which the human mind is capable, but that, while in the practice of their vocation, they shall exercise that degree of knowledge and skill ordinarily possessed by members of their profession. This is the declaration made by the supreme court of Nebraska, in the case of VAN SKIKE *vs* POTTER, December 1897, which was an action brought to recover damages from Drs. POTTER and REYNOLDS for alleged negligent treatment of a knee cap fractured in a baseball game. The trial resulted in a verdict and judgment in favor of the doctors, which the supreme court affirms. The evidence, the supreme court holds, sustained the finding of the jury that the defendants did not contract with the plaintiff to effect for him a permanent cure, and did not contract to visit and treat him until he was cured. As to whether they had pursued the proper method in setting his knee cap, by wiring the fractured portions together, the supreme court says, "as is usual, the experts for the plaintiff agreed with his contention, and the experts on behalf of the defendants agreed with their contention," and it decides that they were not guilty of negligence in the treatment given the plaintiff, including the leaving the point of a drill in the bone when broken off in drilling a hole in one of the pieces of the knee-cap, owing to a movement of the plaintiff's leg. Upon the issue, made by the pleadings, as to whether the defendants agreed to visit and treat the plaintiff until he recovered, the court holds that they were properly permitted to testify that at the date of their last visit to him, they informed him that they should not return unless they should be requested so to do. It also holds that in such a case, text-books on surgery, though standard authority on the subject, could not be read to the jury as independent evidence of the opinions and theories therein expressed or advocated.—*Jour Amer. Med. Assoc.*

THERAPEUTICS AND PHARMACOLOGY.

Biniodide of Mercury as a Substitute for Potassium Iodide.

HOBDAY says the great objection to the use of potassium iodide in veterinary practice, especially for the larger animals, where full and repeated doses have to be employed, is its expense. About two years ago, in the course of conversation, Professor EDGAR, of Dartford, observed that he had been using the biniodide of mercury as a substitute for potassium iodide in the treatment of actinomycosis, and that he found the treatment to be attended with an equal amount of success.

The recipe used consisted of from 2 to 6 grs of biniodide of mercury dissolved in an ounce of water by the aid of from 5 to 10 grs. or 12 grs. of potassium iodide HOBDAY has been able to collect a fair number of instances in which it has been tried successfully on cattle suffering from actinomycosis. In the treatment of chronic elephantiasis and of tumors of the shoulder and elbow, the biniodide has been used in the clinic at the Veterinary College as a substitute for potassium iodide, and an equal amount of success has been obtained, together with the advantage of obtaining the alterative effect of the mercury. Professor EDGAR has also tried it successfully in the horse for the dispersal of glandular enlargements, for capped elbows, and for scirrhous cords; he has also found it a valuable agent as an astringent to the lacteal secretion in mares and cows,

Summing up the results, HOBDAY concludes (1) That the agent is very much cheaper to use than potassium iodide. (2) That the results which he has been able to collect regard. ind its value in actinomycosis confirm those which Professor EDGAR had already obtained. (3) That the observations which Professor EDGAR and himself had been independently making at the same time upon its therapeutic effects as a resolvent, specific and alterative in certain diseases of the horse, appear to demonstrate its value, and to agree in almost every detail. (4) They have each found that, as is frequently the case with potassium iodide, failure to continue with the medicine for a sufficiently long time may cause a relapse, the tumors again enlarging.—*Gaillard's Med. Jour.*

Best Means of Administering Salicylates.

IT would be a work of supererogation to undertake to prove the great and permanent value of the salicylates in the treatment of rheumatism in its various forms. For over twenty-five years, salicylic acid and its salts have been recognised as standing at the very head of remedies in this class of diseases. There are, however, many grave drawbacks to the use of either the acid or any of its salts, alone in a treatment which may last, as in rheumatism, gout, and neuralgia, for a long period of time. Being a powerful antiferment, and sharing this property with most of its salts salicylic acid impairs digestion, and soon sets up a dyspeptic condition almost as intolerable as the pains which it is intended to overcome. Its after-taste can be covered and concealed in no manner yet discovered, so that very soon the patient takes it only with great difficulty. In tongaline, however, the salicylates are so combined with corrigents that there is little or no reactionary rebellion against them by the organs of digestion and assimilation, while their efficacy is not affected in the least. The experience of thousands of physicians corroborates this statement, and concurs in the fact that tongaline affords the very best method of administering the salicylates.—*Virginia Med. Semi. Monthly.*

Dika Fat.

DIKA is extensively used by the natives of the Cameroons for culinary purposes, is a vegetable fat obtained from the wild mangoe. The fruit is dried and afterwards boiled, when the fat, which separates, is skimmed off and drained. It is a little darker colored than palm oil, but has a most agreeable flavor, and is not only readily digested but also renders whatever is cooked in it extremely palatable. Dika, or Odika fat as the natives call it, is certainly preferable to lard and infinitely more nutritious than margarine; but until regular mangoe farms are established, this fat cannot be procured on anything like a profitable commercial basis.—*Chem. Trade Jour.*

Hair Falling Out.

USE the following lotions.—

A

Boracis...	...	...	...	ʒj.
Glycerini	...	...	...	ʒij.
Tr. cantharid	...	...	...	ʒvj.
Liq ammoniæ	...	...	...	ʒj.
Ol myrciæ	...	...	...	mtij.
Aq. ad.	...	..	...	ʒvj.

M. S A.

B

Acet. aromatic	...	...	...	ʒij
Glycerini	...	...	...	ʒij.
Spt. rectificat	...	...	...	ʒj
Liq. epispastic	...	...	..	ʒj
Aq. flor aurant	...	...	...	ʒij.
Aq. rosæ	...	...	...	ʒvj.

M. S. A.

B is to be used at night, and *A* next morning. Rub each well into the roots of the hair.

Lecock's Hair Lotion.

Ol. macis	...	...	...	3ss.
Ol. olivæ	...	...	...	3ij.
Liq. ammoniæ	...	...	...	3ss.
Spt rosmarini	...	...	...	ʒj.
Aq. rosæ	...	...	...	ʒiiss.

Mix the oils, add the ammonia, combine, and thin with 1 oz. water. Mix the spirit with the rest of the water, and add *sec. art.*

Bay-rum

Ol. myrciæ acris	...	...		3x.
Ol. pimentæ	...	...		ʒj.
Æther. acetic	..	...		ʒij.
Spt. vini rect.	..	...		Cong. iij.
Aquæ	..	...	...	Cong. ij.

M.

Lemonade Powder.

Ac. tartaric	..	...	..	ʒj.
Ol. limonis	...	...	...	mxx
Tr. curcumi	...	..	..	ʒj
Sacch. alb.	...	...	...	lb. j.

Mix the tincture and oil with a few ounces of the sugar, add to the bulk, and sift.

Ginger Beer Powder.

Ac. tartaric	...	...	...	ʒj.
Sacch. alb.	...	...	...	lb. j.
Tr. curcum.	...	...	...	ʒij.
Ess. zingib.	...	...	...	ʒj.

Mix the essence and tincture with the sugar, and dry; then add the tartaric acid.

Lotion for Itching of the Anus.

℞ Sodium hyposulphite			...	80 parts.
Carbolic acid	...	...		5 „
Glycerin	...	...		20 „
Distilled water	...	...		450 „

M. Compresses wet with the solution are to be applied to the anus frequently.

Corn Salve.

Ac. salicyl.	...	...	...	ʒij.
Ceræ flavæ	...	...	...	ʒij.
Ol. olivæ	...	...	...	ʒij.
Resinæ	...	...	...	ʒij.
Adipis	...	...	...	ʒij.

M. S. A.

Correspondence.

THE ANGLO-INDIAN CAUSE.

To the Editor, "INDIAN MEDICAL RECORD."

SIR,—The following letter appears in the *Pioneer* of the 7th July, and will be read with interest by the Anglo-Indian *clientèle* of the *Record* :—

"EURASIAN, ANGLO-INDIAN, OR BRITISHER.

To the Editor of the Pioneer.

"Sir,—The transient victory of the official clique which ruled the roost at the recent meeting of the Anglo-Indian Association held at Allahabad with the object of eliminating the term 'Eurasian' from the designation of that association, has been characterised as a triumph of 'common sense over touchiness,' and the *Pioneer*, referring to the over-ruling sentiment of that meeting, says: '*the Eurasian would not be less a Eurasian when lumped indiscriminately with the Anglo-Indian.*' Officials, and other imported Britishers whose vested interests are identical with officialism in India, urge that the objections to the application of the term 'Eurasian' to persons of mixed British, European and Indian decent, are purely sentimental. Even if they were so, they should command respect and sympathy from all true-hearted Englishmen. But the objections are chiefly of a socio-political nature, and no party is more thoroughly cognisant of this important phase of the present agitation than that section of the *non-domiciled* European community which obtains its foothold in India by sheer merit of patronage from the Secretary of State for India, and retains this unjust reservation of the higher or 'imperial' posts in the Indian services by a usurpation that is as cruel in its arbitrariness as it is unlawful in its violation of a distinct Act of Parliament (Statute 33, Victoria, Chapter III. Section 6). Leaving aside, however, for the moment, the political rights and privileges of the domiciled British community (in which are included all Europeans *permanently* domiciled in India and their descendants of mixed or unmixed descent) and reverting to the main object of this epistle, let us ask (1) what does the term *Eurasian* signify? (2) what does the term *Anglo-Indian* signify? and (3) what is the law with regard to the claims *of nationality*? I will endeavor to answer these questions briefly.

"(1). The term Eurasian is etymologically and anthropologically a misnomer. It was intended to signify an admixture of race between European and Asian, but in order to be grammatically and ethnologically correct in significance, the word ought to be *Europo-Asian*. As it stands, the Greek prefix *Eur* or *Erus* means broad, therefore the word "Eurasian" signifies broad Asian, which is absurd. To attempt to bolster up the etymological basis of the term on the plea of euphony, is simply ridiculous. The credit or discredit of coining this hybrid term has been given to Mr. METCALFE, an old Bengal Civilian, while others ascribe the 'honor' to the Marquis of Hastings. That the designation was looked upon with intense disfavor at the earliest period of its inception, is proved by the fact that at the time of the Anglo-Indian delegation of Mr. RICKETTS to the British Parliament in 1829, to plead the cause of the domiciled European community before that august tribunal, an indignant protest was made against the use of the word "Eurasian" towards those of that community who were of mixed British and Indian descent. It was then held to be a term of reproach, and as such it has never lost its racial disapprobation. As a class-name it serves to perpetuate 'caste' distinctions in a community that can ill afford to raise artificial barriers in its already much divided camp.

"(2). The term 'Anglo-Indian' is etymologically and ethnologically the true and correct designation that should be applied to persons of mixed British and Indian descent. Under no circumstances (save that of 'domicile') can a person of *pure* British descent, whether born in Great Britain or in India, be termed an 'Anglo-Indian,' if we have strict regard to the etymological and anthropological or racial significance of the term. But as Britishers domiciled in India have a right to be embraced or classified under a designation which indicates their domicile, they may fitly be termed 'Anglo-Indians,' and they have very rightly so adopted this nomenclature for themselves. Hence we have in the term 'Anglo-Indian' a designation which aptly embodies all Britishers domiciled in India and their descendants, and so we claim that their representative associations should bear this and no other name. And this brings me to consider the veiled sarcasm of the passage I have quoted from the *Pioneer*, namely, the disputed claim of the so-called Eurasian to be 'lumped indiscriminately with the Anglo-Indian.' Now what does the lumping discriminately or indiscriminately of the Eurasian with the Anglo-Indian really mean? Has he any right to be so 'lumped' or classified? Now I claim that there is no such individual as the *Eurasian*, since no one of any conceivable race can be forced or conjured into fitting into a designation that does not correctly, and therefore lawfully, describe his race or nationality, or domicile There are such persons as *Europo-Asians* such as Anglo-Indians proper, Franco-Indians, Germano-Chinese, Hispano-Burmese, Russio-Siberians and so forth, but with all due deference to METCALFE and HASTINGS, there is no such person as a *Eurasian*. Again, an Anglo-Indian or a so-called British Eurasian, has a national claim to be 'lumped' not alone with his *own* class, the Anglo-Indian, but his claim must be carried further, to its legitimate goal. He *must* be 'lumped' with his kinsmen, the Britisher, and with no one else, for (3). What is the law with regard to the claims of nationality? It is this, that a man claims his nationality from his father, grandfather or great grandfather. Hence the sons, grandsons and great-grandsons of English, Scotch or Irish fathers from Indian mothers, grandmothers or great-grandmothers are English, Scotch or Irish, just as their fathers, grandfathers or great-grandfathers were, and therefore the so-called Eurasian has a lawful right and an unquestionable claim to be 'lumped' *not* alone with Anglo-Indian but with the proud-souled Britisher. He can have no outcasted position. He can suffer no shadow of ostracism in the eyes of British law as to his nationality. His inclusion in the heritage of the Britisher is as inalienable and indisputable as that of the proudest of pure-blooded Englishmen. It is upon this strong and sure foundation of their national birthright that all domiciled Britishers and their kinsfolk in India must claim their socio-political rights

and privileges before the great tribunal of the United Kingdom, the Parliament of Great Britain and Ireland. All the old-fashioned shackles of caste-names and hybrid classifications must be torn away, every distinction that raises an artificial barrier to the cohesion and solidarity of the members of the domiciled British community of India must be eradicated, and a union, indissoluble by such unworthy characteristics as prejudice, false pride, jealousy and other hindrances, must bind together these rapidly growing and important members of the British race in India in defence of their common interests, till the prophecy of Lord DUFFERIN in his famous Minute on the 'Anglo-Indian Regiment Question' is realised in all its potentiality, namely, 'that the Anglo-Indian race once united can never be repressed.'

Yours &c., JAMES R. WALLACE, M.D., F.R.C.S."
50, PARK STREET, CALCUTTA, *4th July 1898.*

TREATMENT OF PLAGUE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—It has given us no small uneasiness and vexation of spirit to know from the ordinary sources of information that the dire disease styled the bubonic plague is carrying off hundreds of people in the metroplis of Western India. The plague has already numbered some 7,500 persons as its victims. We in this part of India deeply sympathize with our fellow countrymen in Bombay who are put to a great deal of inconvenience and stand in jeopardy of their lives owing to the severe visitation of the plague. Experts from Europe have, from the very outset, been trying to grapple successfully with the disease, and have proposed various remedies. But it is indeed a misfortune that no treatment of a satisfactory nature has yet been found out. The disease is only of a very late introduction, and it appears to be one of the most dangerous and terrible disease that can afflict humanity.

The attention of distinguished medical men and sanitary scientists has hitherto been mainly devoted to the protective inoculation in order to scare away the plague, and so far their attempts in this direction are not reported to be an unqualified success. With all due deference to the noble array of distinguished medical men working in the field of plague research, I beg to submit that much good may be expected if the Altera-Unio system of treatment be adopted under which proper medicines should be administered which have a marked tendency to destroy the microbe and then the morbid humours and accumulations must be washed off by good purgatives followed by aromatic tonics for improving the strength of the patient. In this way the germs will be destroyed, the further progress of the disease arrested, and the blood rendered less favorable to the action of the diplo-bacteria. For this purpose I would suggest the administration of creasote in minute doses in the first instance by which short work will be made of the germs, or they will be deprived of their destructive power. Creasote has been found to be an efficacious remedy in diseases of the digestive and respiratory organs, and it possesses the peculiar and important property of serving as a powerful disinfectant, parasiticide and cleansing agent of the animal economy. While the germs are thus rendered powerless, the bowels should be acted upon freely by purgatives and nothing would suit the purpose better than calcium sulphide powders. Calcium powders empty the bowels of the morbid and irritating matters and thus prevent the formation of the painful tumour in the glands of the groin and other parts. After these preliminary processes are gone through, the system should be invigorated by tonics. In this connection I beg to point out that the internal use of calcium sulphide is also calculated to destroy the micro-organisms, and it is generally believed to be an efficient remedy for boils and other eruptions of the body. Thus the double therapeutic effect of this medicine may be tried in plague-stricken individuals. I think it may also be of use to lay before the public the fact that the bark of the *neem* tree is a remedy of the greatest value in the treatment of febrile conditions accompanied with great nervous prostration and eruptions on the body. The bark may be given in conjunction with a little pepper powder in the form of a decoction and a few drops of essence of camphor should be added to it. The bark of the *neem* tree has not, I think, been sufficiently recognised in European practice, and I would refer your readers to an interesting article in the Manual of the Madras Administration, Vol III, page 576, for detailed information regarding the medicinal virtues of the bark and other valuable substances obtained from the *neem* tree. It is also supposed that Dr. DYMOCK should have included the *neem* in his "Vegetable Materia Medica of Western India." The *neem* bark acts as a powerful absorbent of putrid materials from the body, while the pepper serves as an antidote to certain poisons in the system and the camphor helps to keep up the temperature and energy of the internal organs, and owing to the combined action of these remedies, the impurities which have been allowed to accumulate inside may be eliminated from the system I have merely shown what benefit can be derived from the use of the medicines described above. It is not my purpose to criticise the measures of relief proposed and carried out by experts in the profession. It is only my deep love for humanitarian and life-saving work that has prompted me to address the public in this way and to express my opinions freely on the subject, and I humbly crave the indulgence of the public if I have over stepped the bounds of propriety by writing this letter for their information.

Yours &c., J. PETER PILLAI, C.M.S.

THE MORAL ASPECTS OF MALTHUSIANISM.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—I regret my inability to fall in with the views expressed in your issue of the 16th June as to the immorality of the "artificial prevention of conception" which, I think, is perfectly justifiable and even imperative under the following conditions.—

(*a*) When the shock of parturition and the double strain of gestation would necessarily endanger the life of a woman who has some pelvic deformity or disease, or is suffering from a low state of health.

(*b*) When either the husband or the wife (or both perhaps) is infected with syphilis, phthisis or other disease capable of hereditary transmission.

(*c*) Where the married couple are not in a financial position to support a family of children.

Most of the objections raised against prevention of conception are ably met by Mrs. ANNIE BESANT's "Law of Population"* and Mr. J. S. MILL's "Essay on Nature" and the suggestion that neo-malthusianism is unnatural or immoral is just as irrational as to insist that man should follow Nature and make the spontaneous cause of things the model of his voluntary actions when it is a well-known fact that were they left to their own sweet will instead of being controlled by art, many natural forces would simply run riot and frequently lead to destruction of property, intense sufferings and loss of life.

Continence is a very good thing in its way, and should certainly be encouraged in the unmarried especially; but it has its chapter of woes also in the shape of spermatocele, spermatorrhœa, prostatitis, ovaritis, leucorrhœa, menstrual disorders, &c.

If killing the spermatozoa or the voluntary emission of semen for purposes other than conception be immoral, then (1) *every* act of sexual congress is immoral, because numberless spermatoza are discharged and killed for the sake of the four or five needed to fecundate the ovum; (2) every barren wife is immoral, and (3) so also every marital couple where co-ordination between the germ cell and the sperm cell does not take place.

A very unkind and unjust opinion is formed of 'woman' and a direct insult hurled at every one of our wives, mothers, sisters and daughters by the despicable insinuation. "The more general knowledge of the checks to conception would foster immorality in the unmarried by giving them facilities to gratify themselves without any corresponding burdens, while to the married it would open the door of infidelity and thus create a perpetual cause of jealously and suspicion with the inevitable effect of wrecking the peace and happiness of home." What a detestable estimation of gentle woman. To say that "fear of conception" only keeps women chaste is to deliberately ignore the innate chastity of women and to judge the rule by its exceptions, as well as forget that man is just as much, yes, and very often a good deal more, to blame for woman's lapse from virtue. He who continually broods trouble breeds it. I quite admit that there are a few women who would be only too willing to avail themselves, at every opportunity, "of artificial checks to conception," but the adoption of such checks is *not* always due to lasciviousness, for there are women and women there be (and men also) to my knowledge whom it would be utterly impossible to tempt to stray from the path of virtue and yet safety to themselves and their duty to their existing progeny has impelled them to artificial means (such as douches, pessaries, wads and *budrachas*) for the prevention of conception.

There is barely anything in this world, whether knowledge, pleasure, vice, power or duty that is not open to the risk of being abused, but it is irrational to let the likelihood of its being abused preponderate the intrinsic worth of anything. Thus fire, which is indispensible for domestic purposes, such as warmth and preparing our food, and for itineration and the production of 99·5 per cent of our *necessary* manufactures becomes a terrible evil in the hands of an incendiary, and no sensible man contends that knives or razors should not be made because a few lunatics have cut their throats with them.

The population question has always been and will continue to be an exceedingly vexed one, but I hold and so does every wise man with me that as it is cruelty and madness to force into the world numerous progeny whom we can neither feed nor rear properly, there is not an iota of immorality in the desire to restrict one's family even if that restriction has to be obtained by the artificial prevention of conception.

Yours &c., HARA KALI SEN., C.S.M.

RAIGUNJ.

* May be obtained from Messrs. Barker Brothers, 150, Dharamtala Street, Calcutta.

:o:

THE C. D. ACTS IN INDIA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—I should like to ask "A Medical Man" to give us the reasons why the old C. D. Act did not perform all that was expected of it, and tell us what were the faults in its construction and working.

This question of venereal disease is one in which I am interested. I don't profess to know much about it physiologically, and like "A Medical Man" I don't go by statistics, though I should earnestly beg of him when he does use them, not to make such awful blunders, as to assert that 8,000 cases of venereal disease are sent home annually when he means 800. My interest in the question is purely from a moral stand-point, and in that connection I should like to reply to "A Medical Man" anent his interrogation. Is it preferable to leave the women to rot?

That surely is not the point involved in the C. D. Acts. It is the motives behind the C. D. Acts that their opponents object to. If a victim of the disease seeks medical treatment in the ordinary way, Dr. HUNTLY would be the last man to refuse assistance; as he would be the first, I am sure, to encourage philanthropic effort in the part of hospital authorities if all ulterior motives were removed. Why will the "C. D. Acts" advocates so persistently avoid the real crux of the matter and wax indignant, with their "Will you leave the women to rot?" If there be only two alternatives (1) "Safe vice" (supposing such possible) and (2) "Disease," then I should say disease is better, because disease will press home the fact that every man must reap where he has sown.

"A Medical Man," however, is aware that there are other alternatives, known to those who believe that man is a moral being and able to live after a moral fashion.

I am glad "A Medical Man" does not object to the women of England being informed in the question. The sooner fathers and mothers make the question of a man's personal purity the first consideration in any proposals of marriage they receive for their daughters the better.

I have heard that a soldier wrote out from England to a friend in this country, that the father of the girl he was courting asked if he had "venereal." Let such conduct on the part of fathers be more general, and perhaps the soldier will exercise more restraint when in this country, where so many seem to think that all restraint may be thrown to the winds.

The object of my letter, however, is to ask "A Medical Man" to explain clearly the faults of construction and working which prevented the old Act from doing all that was expected of it.

One should like to know, exactly, what is always occurring to prevent the advent of the millenium in "*Lotus-eated Vice.*" I fear the date of its arrival coincides with the *Greek Kalends.*

Yours &c., A NON-MEDICAL READER.

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FAIR PLAY FOR THE I. S. M. D.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—In course of conversation a few nights ago with a friend, over the miserable feeling existing about the various causes for the grievances in the unfortunate Military Assistant Surgeon class, the hard case of Assistant Surgeon J. P. MONTGOMERY was discussed, and on reference we found that this young man was tried and sentenced to reduction in July 1896, fully two years ago. His supposed crime and his sentence with its legality we'll leave for discussion elsewhere, as I should like to see it pilloried by Mr. LABOUCHERE in *Truth* with Surgeon-Major DENNY'S case. The *Record* had its say at the time and did good service in exposing and publishing the private note written to the members of the court martial by a vindictive A. M. S. Officer, but my chief reason in writing to you now is to ask if para. 278 B. of A. R. I., Vol VI. (Medical) has been expunged or rendered void? We are told that a Warrant Officer "reduced by sentence of court martial to a lower class" (and MONTGOMERY was virtually 'reduced," as, *at the time*, his promotion to the higher class was a certainty) "will be eligible for promotion to his former class on the recommendation of the Surgeon-General with the Government, after not less than one year from the date of the sentence of the court martial," &c

Who is responsible for the omission? Are the SUBORDINATE GRADES of this service left to the mercies of Baboos in the Surgeon-General's Office, as they are in the offices of P. M. O's. of districts? MONTGOMERY has been in active service lately, and perhaps his several medical officers can report whether his services in the field are worthy of recognition. If I am not mistaken, the poor unfortunate man has appealed twice, asking consideration from the Commander-in-Chief, but his appeals were returned "as the case could not be re-opened," but neither of them reached the Commander-in-Chief as far as I am aware.

It is painful and disgraceful to see the state of feeling existing in the Warrant grades of the service, they are more than discontended, and with good reason too.

Yours &c., FAIR PLAY.

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SOME MEDICAL APPOINTMENTS FOR MILITARY ASSISTANT SURGEONS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—With reference to the letter from "One Interested" in your issue of the 1st July under the above heading, I fail to see the justice of his argument in stating that the appointment of chief medical officership to the Eastern Bengal State Railway might be profitably and successfully filled, by a commissioned officer of the Military Assistant Surgeon class, or a first class Military Assistant Surgeon of over five years.

The question of seniority in filling the majority of appointments is left out of consideration in the present day, so also professional attainments, as is generally seen. Why then should this post be solely and specially the preserve of the above ranks? The appointment being one of responsibility and requiring skilled professional knowledge, you would do well to urge a British diplomaed Military Assistant Surgeon for the place irrespective of rank and age.

Such appointments, if given to British diplomates, would be an encouragement and incentive to Military Assistant Surgeons as a body to exert themselves to obtain this coveted distinction, thereby improving the tone of the service—a matter you have repeatedly recommended.

Yours &c., ANOTHER INTERESTED.

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HIGHLY PLACED ANGLO-INDIANS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Will you permit me to supplement the list of "distinguished" Anglo-Indians furnished by other correspondents in your columns for May 1898:—

Lieutenant-Colonel Forgett, C.B., Lately Commanding the Marine Battalion.

William Dracup, Assistant Consulting Engineer for Railways, Bombay.

J. W. S. Dracup, Assistant Commissioner, N. D.

W. A. Collins, Chief Engineer, B. I. M. Dockyard, Bombay.

C. W. Richardson, Presidency Magistrate, Bombay

M. T. Carroll, Manager, Messrs. William Watson & Co., Bankers.

W. Hoonahan, Deputy Collector, Karachi.

T. Ward, Messrs. Ralli Brothers.

Harry Brewin, Deputy Inspector-General of Police, Bombay (the Sherlock Holmes of India).

F. G. Dumayne, Secretary, Bombay Port Trust.

W. Bedford, Chief Superintendent, Accountant-General's Department.

J. Walsh, Superintendent, Her Majesty's Customs, Preventive Service.

W. Almon, 1st Assistant Collector of Bombay

W. B. Wright, Auditor, S. M. Railway.

J. J. Barratt, M.I.M E., Consulting Engineer for Mills.

R. J. Sharman, Assistant Collector of Customs, Prince's Dock.

W. N. Shilstone, Assistant Secretary, Bombay Port Trust.

Arthur Panton, Traffic Manager, Bombay Port Trust.

R. W. Waller, Assistant Secretary to Government, Railway Department.

T. J. McCloughlin, Deputy Traffic Manager, South of India Railway.

W. A. Crisp, Examiner, P. W. Accounts.

F. M. Stephens, F.R.C.V.S.

C. Stephens, F.R.C.V.S.

F. L. McAfee, B.A.

H. C. F. Sealy, B.A., LL.B., Barrister-at-Law.

E. Van Der Straaten, Judge, Small Cause Court, (Sind).

Yours &c., SPECTATOR.

PLAGUE SERVICE REWARDS.

To the Editor, "Indian Medical Record."

Sir,—We are all pleased to learn, from the issue of the Record of the 1st instant, that the attention of the Government of India is at present engaged in improving our prospects. I need hardly say that we are all very thankful for this consideration, and if I may, I would beg to observe that it would be a graceful act on the part of the Indian Government to show its appreciation of our good services during plague, famine, and particularly the recent war, by ameliorating our disadvantages on the lines proposed by the Indian Medical Association, regarding pay and pension.

Special promotion, which is usually doled out after field service, is nothing short of a great hardship to the majority who have worked ably and well; for only the very favored and small minority get it, for reasons it is unnecessary to dilate upon.

Yours &c., A Military Assistant Surgeon.

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THE U. C. M. S.

To the Editor, "Indian Medical Record."

Sir,—Would you be so good as to favor me, through the columns of the *Record*, with the rules for entrance into the Uncovenanted Medical Service, and whether it is feasible for a Military Assistant Surgeon to enter it; if so, under what conditions and to whom must application be made?

Yours &c., An Enquirer.

Medical Trade Notices.

VINOLIA.

Blondeau et Cie, London, have submitted for our notice samples of their vinolia preparations. The samples sent comprise their vinolia liquid dentifrice, and vestal vinolia soap. The liquid dentifrice is in the form of a yellow-red fluid, with a strong and not disagreeable aromatic odour. It contains many antiseptic vegetable volatile oils, and from its behaviour when added to water apparently some sal-volatile. The dentifrice is largely an alcoholic solution, burning easily on the application of a flame, and leaving a residue in the form of pink drops which still retain a strong aromatic odour. After using it, we should say that it is of more service as a tonic and strengthener of the gums than a powerful agent for cleansing the teeth. Indeed, the makers advise the use of the dry dentifrice first followed by the liquid preparation. At all events the gums appear to be much benefited by its use, and its antiseptic powers render it a good application for use after a meal or at bed-time.

The vestal soap is the finest product among the soaps made in the Vinolia Works. It is even more soothing to an irritable or tender skin than the ordinary vinolia soap, and is superfatted and delicately perfumed. Its only drawback is its price, 2s. 6d. per cake.

BETUL-OL (KUHN).

There is no doubt that natural salicylic acid and its compounds are very much to be preferred to the artificial products. Probably many have discontinued the use of salicylates, deterred by the occasional ill-effects caused by impurities present in the salicylic preparations made synthetically, so that the introduction of a natural compound, at a reasonable price and of undoubted purity, is a matter for congratulation. Betul-ol is salicylate of methyl made up as a liniment. The active agent is derived from *Betula lenta*, and is very similar to or identical with the oil of wintergreen obtained from *Gaultheria procumbens*, though its smell does not appear to be quite so penetrating. In the form of a liniment, as in betul-ol, it is claimed that it is readily absorbed through the skin, forms salicylate of sodium in the blood, and produces the pharmacological effects of this salt in the body, unaccompanied by any of the untoward results following upon the administration of the synthetic salicylates.

THE "ALLENBURY" FOODS.

In the artificial alimentation of infants, cow's milk has hitherto been very largely used, though the constituents are not present in the same proportions as in human milk. For instance, the proportion of Casein is too large, that of fat too small, whilst the albumin and milk sugar are deficient. The series of foods introduced by Messrs. Allen and Hanbury are specially prepared to meet the physiological requirements of the infant at different periods. The foods are made to resemble or to be equivalent to the milk of the mother.

What is termed the No. 1 or fine food, is specially made for infants who have to be brought up artificially from birth up to three months. It is prepared from fresh cow's milk, from which the excess of caseine has been removed, cream albumin and milk sugar are added so as to bring the food up to a standard when the resulting mixture is sterilized, concentrated in vacuo, and preserved in hermetically closed vessels.

We have found this to be an excellent substitute for woman's milk for infants up to the age of three months. It is eagerly taken, readily assimilable, and particularly noted that it leads to firmness of the muscles.

From three months to seven months Messrs. Allen and Hanbury have a No. 2 or second food—the basis of which is the same as the No. 1 food, with the addition of maltose and of small proportion of dextrine with soluble phosphates, and when the infant has reached seven months, a No. 3 or malted food, suited to the advanced acquirements for the infant, is used.

The No. 3 food is only partially predigested, so that the infant's digestive organs have something to do. The method of feeding is all important, and Messrs. Allen and Hanbury have introduced one of the simplest and best feeders, a bottle which can be simply flushed through and thoroughly cleansed, with a nipple which can be turned inside out so as to keep it thoroughly aseptic. These foods are not expensive, and that is a very important consideration.

ASEPTIC GLASS CATHETER CASES.

Messrs. Down Brothers inform us that they have for some time made Glass Catheter Cases on the same principle as one suggested by us, and with an improvement, *viz.*, with rubber stopper at each end, so that the case can be well flushed out. We have pleasure in drawing attention to their statement.

KASAGRA.

THE name sounds odd, and as doubts may arise as to the therapeutics of a drug with a fanciful name, we might enlighten our readers. When Extract Rhamni Purshianæ (*i.e.*, Cascara Sagrada) was first placed before the medical world, its intensely bitter taste and the gripes it caused threatened to lose sight of it as an useful dietetic, laxative and alterative; but Messrs. FREDERICK STEARNS & Co., coming to the rescue, rid the drug of its drawbacks without impairing its medicinal value, and presented it to the public under the name of *Cascara Aromatic* which the National Formulary appropriated and caused such confusion that to prevent other preparations being further confounded with theirs, it is considered advisable to contract the name Cascara Sagrada into the shorter and euphonious one of Kasagra.

Government Medical Gazettes.

GOVERNMENT OF INDIA.

Brig.-Surgn. Lieut.-Col W. R. Slaughter, A. M. S., to officiate on the Administrative Med. Staff of the Army, with the tempy. rank of Surgn.-Col, *vice* Surgn.-Col. J. Williamson, deceased.

The Viceroy and Govr.-Genl. has been pleased to make the following appts. on His Excellency's personal staff.

To be Honorary Surgeons.

Surgn.-Col. W. P. Warburton, M.D., I. M. S., *vice* Brig.-Surgn. Lieut.-Col. D D. Cunningham, M.B., F R S., C.I E, retired.

Surgn.-Col. W. S. M. Price, Army Med. Staff, *vice* Surgn.-Col. C. Atkins, vacated.

Brig.-Surgn. Lieut.-Col. G. D. Bourke, A. M. S., *vice* Brig.-Surgn. Lieut.-Col. J D. Edge, vacated.

Surgn.-Capt. W. E. A Armstrong, I. M. S. (Mad.) offg. Resy. Surgn. and *ex-officio* Asst, to the Resdt. in Nepal, is granted privilege leave for three months from 26th June 1898, or the subsequent date on which he may avail himself of the leave.

Surgn.-Capt. J. W Grant, M.B., I. M. S (Beng.) is apptd. to officiate as Resdy. Surgn. and *ex-officio* Asst. to the Resdt. in Nepal, from the date of assuming charge, *vice* Surgn.-Capt. W. E. A. Armstrong.

The services of Surgn.-Capt. P. C. Gabbett, I. M. S. (Mad.) are replaced at the disposal of the Govt. of Madras from the date on which he assumed charge of his duties under that Govt

Surgn.-Capt. H. W Bliphick, on plague duty at Hardwar, furlough (*m c.*) for six months from 20th April 1898.

Surgn. Lieut.-Col. C. J. H. Warden, I. M. S. (Beng.) Med. Storekeeper to Govt., Bengal Comd., is granted two years' furlough from the date of his availing himself of the same.

Six months' leave (*m.c*) granted to Hosp. Asst. Rahim Baksh, attached to the Khaddah Estab., Dacca.

Surgn.-Major. J C. C. Smith, Civil Surgn. from Shahjahanpur to Saharanpur dist.

The services of the undermentioned officers are replaced at the disposal of the Govt. of Beng. from the dates on which they may assume charge of their duties under Govt.,—Surgn.-Capt F. C. Clarkson, I. M. S (Beng.); Surgn.-Capt. F. O'Kinealy, I. M. S. (Beng.)

BENGAL GOVERNMENT.

Surgn.-Lieut.-Col. D. W. D. Cousins, Inspr.-Genl. of Jails, Beng., is allowed furlough for 16 months from 16th July 1898, or any subsequent date on which he may avail himself of it.

Surgn.-Capt. D. M. Moir, Offg. First Resdt. Surgn., Presy. Genl. Hosp., Calcutta, is confirmed in that appt., *vice* Surgn.-Capt. H. W. Pilgrim.

Surgn.-Capt. F. O'Kinealy is apptd. to be Second Resdt. Surgn., Presy. Genl. Hosp., Calcutta, *vice* Surgn.-Capt. D. M. Moir.

Surgn.-Capt. S. E. Dunn, Civil Surgn. of Malda, is apptd. to act as Civil Surgn. of Midnapore, during the absence, on deputation, of Surgn.-Maj J. H. E. Welsh, or until further orders.

Dr. P. R. May Jagannadham is apptd. to be Civil Med. Officer of the Chittagong Hill Tracts, but will continue to act as Civil Med. Officer of Serampore.

Surgn.-Maj. D. G. Crawford, Civil Surgn. of Monghyr, is apptd. to act as Civil Surgn. of the 24-Parganas, during the absence, on leave, of Surgn.-Maj. A. W. D. Leahy.

Surgn.-Maj. D. G. Crawford, Offg. Civil Surgn. of the 24-Parganas, is apptd. to act, until further orders, as Med. Inspr. of Emigrants (Colonial Emigration) in addition to his own duties.

Surgn.-Maj. F. A Rogers is apptd. to act as Civil Surgn. of Monghyr, during the absence, on deputation, of Surgn.-Maj. D. G Crawford.

Surgn.-Capt. J. G. Jordan, on return from tempy. mily. duty, is apptd. to act as Deputy Sany. Commr., Metropolitan and Eastern Beng. Circle, until further orders.

Under Rule 6 of the rules contained in Plague Regulation, dated 2nd May 1898, the Lieut.-Govr. is pleased to appt. Surgn.-Capt. J. G. Jordon, offg. Depy. Sany. Commr., Metropolitan and Eastern Bengal Circle, to be an Asst. Health Officer of the Port of Calcutta in addition to his own duties.

Surgn.-Capt. J. C. S. Vaughan, on return from tempy. mily. duty, is re-apptd to be Depy. Sany. Commr., Western Bengal Circle, and is also placed on special duty in connection with anti-cholera inoculation.

Asst. Surgn. Satish Chandra Basu, of the Puri, Pilgrim Hosp., held medl. charge of the civil station, Puri, from 21st to 26th March 1898 in addition to his own duties.

Mily. Asst. Surgn W. Clarke apptd. to act as Asst. to the Surgn.-Supdt., Presy. Genl. Hosp., Calcutta, from 5th April 1898.

Mily. Asst. Surgn. C. R. W. Bancroft is apptd. to act as Med. Officer at the Sandheads, during the absence, on leave, of Asst. Surgn. P. Fitzpatrick from 1st April 1898

Surgn.-Capt. J T. Calvert, on return from tempy. mily. duty, is apptd. to act as Civil Surgn. of Darbhanga, during the absence, on deputation, of Surgn.-Capt. C. R. M. Green.

PUNJAB GOVERNMENT.

On transfer from Umballa, Surgn.-Capt. D. M. Davidson assumed charge of civil med. duties of Murree on 14th June 1898, relieving Surgn.-Maj. A. G. Kay.

Asst. Surgn. Krishen Chand, in charge of Civil Hosp., Umballa, is placed in civil med. charge, Umballa, in addition to his own duties, from 18th June 1898, *vice* Surgn.-Capt. D. M. Davidson, transferred.

On their services being replaced at the disposal of the Govt. of Punjab, the undermentioned med. officers are re-apptd. to officiate as Civil Surgns. of the 2nd class and are deputed on special duty in connection with the plague. They reported themselves at Phagwara on the dates noted opposite their names :—

Surgn.-Capt. A. W. T. Buist-Sparks, 9th May 1898.
Surgn.-Capt. H. Smith, 6th May 1898.
Surgn.-Capt. G Y C. Hunter, 7th May 1898.

The Hon'ble the Lieut.-Govr. is pleased to appoint Surgn.-Lieut. H. J. Walton Plague Officer in the suspected areas of the Punjab.

On being relieved of the civil med. charge of the Gurdaspur dist., Asst. Surgn Inayat-ulla Nasir reverted to Batala and resumed charge of the dispy. on the 6th June 1898, relieving Hosp. Asst. Bahadur Shah.

On being relieved of the charge of Batala Dispy., Gurdaspur dist., Hosp. Asst. Bahadur Shah was placed on genl. duty at the Mayo Hosp., Lahore, from 14th June 1898.

On being relieved of the civil med. charge of the Shahpur dist., Asst. Surgn. J D. Rebeiro was apptd. to do genl duty at the Mayo Hosp., Lahore, which he joined on the 13th June 1898.

On being relieved of the charge of the Nowshera Kalan Dispy., Peshawar dist., Hosp. Asst. Nuckai Saia was apptd. to do genl. duty at Peshawar, which he joined on the 20th May 1898.

On the termination of his special plague duty in the Jullundur dist., 2nd class Hosp. Asst. Basharat Ali reverted to Sialkot in the same dist. and resumed charge of the dispy. on 8th June 1898.

The undermentioned 2nd class Hosps. Assts. having passed the Departmental Prof. Exam. of Hosp. Assts. held on 15th April 1898, are promoted to the 1st class from the dates noted against their names :—

Ujagar Chand, 15th April 1898; Ganpat Sai, 15th April 1898; Sultan Din, 15th April 1898; Alla Bakhsh, 15th April 1898.

The undermentioned 3rd class Hosp. Assts. having passed the Departmental Prof. Exam. of Hosp. Assts., held on the 15th April 1898, are promoted to the 2nd class from the dates noted against their names :—

Ghulam Ahmad, 15th April 1898; Babu Ram, 15th April 1898; Mala Mal, 15th April 1898; Waryam Singh, 15th April 1898; Bhag Mal and Amir-ud-din, 15th April 1898.

Hosp. Asst. Agia Ram, Chunian Dispy., Lahore dist., has obtained 40 days' privilege leave, and was relieved of his duties on the 16th June 1898 by Hosp. Asst. Jamiat Rai, transferred from genl. duty, Mayo Hosp., Lahore.

Hosp. Asst. Nur Ahmad doing genl. duty at Kasauli obtained three months' privilege leave from 16th June 1898

BOMBAY GOVERNMENT.

Surgn.-Lieut.-Col. J. P. Greany, M.D., and Surgn.-Lieut. Col. D. C. Davidson respectively delivered over and received charge of the Dharwar Prison on the 29th June 1898

His Excellency the Govr. in Council is pleased to appt. Surgn. Capt. J. H. McDonald, M.B., C.M., to hold charge of the duties of Civil Surgn.-Supdt, Lunatic Asylum and Supdt. Med. School Hyderabad, as a tempy. measure, *vice* Surgn. Lieut.-Col W. G. H. Henderson, F.R.C.S., transferred.

Asst. Surgn George M. Dixon L.M., & S., has been apptd. to the med. charge of Mrs Pascol DeSousa's Charitable Dispy. at Uran from 20th June 1898.

Asst. Surgn. Pandurang Gopal, G.G.M.C, has been placed on genl. duty from 20th June 1898.

Surgn.-Capt S. B Grayfoot, on attaining the rank of Surgn.-Maj, will vacate the Secretaryship to the Surgn Genl. with the Govt. of Bombay and hold permanently the appointment of Civil Surgn., Kaira, *vice* Surgn.-Maj. J. P. Barry, M.B.

Surgn.-Capt. S. H. Burnett, M.B., C.M., is apptd. to act as Secy to the Surgn.-Genl, with the Govt. of Bombay.

Mr. J. W. P. Muir-Mackenzie, M.R.A.C., I.C.S., acting Chief Secy. to Govt., Revenue and Financial Depts., is granted privilege leave of absence for twelve days from the 14th July 1898.

Asst. Surgn. J. E. Bocarro, L.M. & S., and Erachji Sheriarji Bharucha, L.M. & S, are promoted from the 2nd and 3rd to the 1st and 2nd class of Asst Surgns, respectively, from the 8th July 1898 and 19th Dec. 1897.

CENTRAL PROVINCES GOVERNMENT

The services of Surgn.-Capt. W. Heuvey, I. M. S. (Beng), are placed temply. at the disposal of the Chief Commr. of the Central Prov.

The services of Surgn.-Capt. S. A. C Dallas, I. M S. (Mad.), are replaced at the disposal of the Chief Commr. of the Central Prov. from the date on which he assumed charge of his duties.

Asst. Surgn. Madhusudan Moitra, in charge of the Warora Colliery, is apptd to the civil med. charge of the Chanda dist. during the absence on leave of Surgn.-Capt. S. A. C. Dallas, I. M. S.

Asst. Surgn. S. N. J. Kotak, attached to the Burhanpur Dispy., is apptd. temply. to the civil med. charge of the Damoh dist. during the absence on leave of Mr. T. W. Quinn.

Surgn.-Major A Silcock, M.D., Civil Surgn., Bilaspur, is apptd. to officiate as Civil Surgn., Nagpur, from 11th June 1898, the date on which he assumed charge of his duties from Surgn.-Major G. F. A. Harris, on deputation.

Surgn.-Major W. L Price, Civil Surgn., Seoni is apptd. to officiate as Civil Surgn. Bilaspur, from the date on which he assumed charge of his duties.

On being relieved by Surgn.-Capt. S. A. C. Dallas, grade Asst. Surgn. Krishnaji Keshinath Gokhle is directed to do plague duty at the Wardha Ry. Stn.

On being relieved by Asst. Surgn. Krishnaji Keshinath Gokhle, Asst. Surgn. Hanoor Mohan Lal is directed to do duty under the orders of the officer in civil med. charge of the Wardha Dist.

Surgn.-Capt. S. A. C. Dallas, I.M.S., whose services have been replaced at the disposal of the Chief Commr. by Govt. of India Home Dept. Notification, dated the 15th ultimo, retained charge of his duties as Civil Surgn., Chanda, on the 23rd May last, from Asst. Surgn. Krishnaji Keshinath Gokhle.

Hosp. Asst. Abdul Bari, attached to the Jail and Police Hosp., Wardha, is apptd. to the Katangi Branch Dispy. in the Balaghat Dist.

On being relieved of the charge of the Katangi Branch Dispy., Civil Hosp. Asst. Bhagwant Din Misra, is apptd. to the Jail and Police Hosp., Wardha

Hosp. Asst. Govind Vithal, attached to the Main Dispy., Wardha, held charge of the Jail and Police Hosp. in addition to his own duties from the 4th to 16th June 1898, both dates inclusive.

On being relieved of the charge of the Jail and Police Hosp, Khandwa, Hosp. Asst. Ashutosh Chatterji is directed to do duty under the orders of the Civil Surgn. of Nimar

Hosp. Asst. Ashutosh Chatterji, doing duty under the orders of the Civil Surgn. of Nimar, is directed to do duty under the orders of the Civil Surgn. of Jubbulpore.

Hosp. Asst. Vithal Anand Rao and Surendranath Chakravarti, who were deputed on plague duty to the Nimar dist., directed to do duty under the orders of the Civil Surgn. of Nimar.

Hosp. Asst. Kuppurajulu Naidu, doing duty under the orders of the Officer in civil med. charge Balaghat, is apptd. to the Jail and Police Hosps, Balaghat, *vice* Hosp. Asst. Jamal-ud-din, retired.

N.-W. P. AND OUDH GOVERNMENT.

Surgn.-Major J. C. C. Smith, Civil Surgn., Shahjahanpur, held visiting med. charge of the Hardoi dist. in addition to his other duties, from 3rd to 12th June 1898.

Asst. Surgn. Suresh Chandra Ghose, attached to the Sadar Dispy., Hardoi, to hold charge of the civil med. duties of that dist. in addition to his other duties.

Asst Surgn. Shashi Bhushan Banerji, Travelling Plague Inspr., Ghaziabad, was on privilege leave for one month from the 15th May to 14th June 1898.

Asst. Surgn Sri Ram from the offg charge of the Lalitpur dispy, in the Jhansi dist, to that of the Kasia Dispy in Gorakhpur.

Asst. Surgn. P. N. Bonarji, Offg. Travelling Med. Inspr., Ghaziabad Circle, to the charge of the Chunar Dispy, in the Mirzapur dist.

Asst. Surgn Trishita Nath Sinha, from Balrampur Hosp., Lucknow, to Lalitpur Dispy in the Jhansi dist.

Asst. Surgn. Hari Dutt Pant, attached to the Sadar Dispy Gonda, privilege leave for two months from 2nd July 1898.

Hosp. Asst. Umaid Rai, in charge of Utraula Branch Dispy. Gonda dist., to the charge of the Sadar Dispy., Gonda, *vice* Asst. Surgn. Hari Datt Pant, on leave.

Asst. Surgn. E. H. Thomas, M.B., L.R.C.P. and S. Edin., L.F.P. and S. (Glas.), L.M., having completed his seven years' service in the present grade, on the 21st June 1898, is promoted to the 2nd grade from 22nd July 1898.

Asst. Surgn. Bishamber Shai, from plague inspn. duty, Ghaziabad, to the charge of Crosthwaite Hosp., Naini Tal.

Asst. Surgn. Chanan Singh, from plague duty, Hardwar, to plague inspn. duty at Ghaziabad Ry. Stn.

Mily. Asst. Surgn. M. Murphy, in civil med. charge of Mainpuri, privilege leave for two months.

BURMA GOVERNMENT.

Mily. Asst. Surgn. G. R Gaudoin made over, and Mily. Asst. Surgn. T. W. Minty assumed, charge of the duties of the Civil Surgn., Mergui, on the 12th June 1898.

Surgn.-Capt. C. C. S. Barry, on proceeding on three months' privilege leave, made over, and Surgn.-Capt C. Daer assumed, as an additional charge, the duties of the Regtl. Med. Offr., Rangoon, on the 11th June 1898.

Hosp. Asst. Mahomed Amin relinquished charge of the Police Hosp., Bhamo, on 21st May 1898, and assumed charge of the Outpost Hosp., Myothit, Bhamo dist., on 30th May 1898.

Hosp. Asst. F. A. Joycela Rao relinquished charge at the Outpost Hosp., Lweleon, Bhamo dist., on 28th May 1898 and assumed charge at the Police Hosp., Bhamo, on 29th May 1898.

Hosp. Asst. Wasir Singh, on transfer to Southern Shan States, relinquished charge at the Genl. Hosp., Rangoon on 8th June 1898.

Hosp. Asst. Rajchunder Kur, on being placed under suspension, relinquished charge at the Police Hosp, Falam, on 17th April 1898.

Hosp. Asst. Gurudas Basu, relinquished charge at the Police Hosp, Moguung, on 3rd June 1898 and assumed charge at the Police Hosp., Myitkyina, on 10th June 1898.

Hosp. Asst. Pydiath Appa assumed, as an additional duty, chage at the Police Hosp., Falam Chin Hills divn., on the 17th April 1898, *vice* Hosp. Asst. R. C. Kur.

Hosp. Asst. S. S. Thumboosswamy Pillay assumed charge at the Genl. Hosp., Rangoon, on 14th June 1898.

Hosp. Asst. T. S. Salvadi Iyar relinquished charge at the Police Hosp. Katha, on the 27th May 1898 and assumed charge at the Ry. Dispy. Wuntho, on the 30th May 1898.

G. O. C. C.

Brig.-Surgn.-Lieut.-Col. W. B. Slaughter, to officiate as Principal Med. Officer, Oudh and Rohilkhand Dist., *vice* Surgn.-Col. J. Williamson, A. M. S deceased.

The leave granted to Surgn.-Capt. L. Rogers, I. M. S., in Comd. Order was extended to the 11th April 1898

The Comr.-in-Chief in India has been pleased to sanction an exchange of places on the roster of Indian service between the undermentioned officers of the Army Med. Staff:—

Surgn.-Maj. H. H. Johnston and Surgn.-Maj. P. C. H. Gordon; Surgn.-Maj. E. Davis, and Surgn.-Maj. S. C. Philson.

ASSAM GOVERNMENT.

Sick leave for three months is granted to 3rd grade Hosp. Asst Jadab Govinda Biswas, is extension of the three months' sick leave granted in Med. Dept. Notification, dated the 30th March 1898.

Hosp. Asst. Mangalbir Singh, in med. charge. of the Krishnai Dispy. in the Goalpara dist., is apptd. to the med. charge of the Rupsi Dispy. in that dist., from 10th June 1898.

Hosp. Asst. Har Kumar Gupta, in med. charge of the Darrangiri Dispy. in the Goalpara dist., is apptd. to the med. charge of the Gauripur Dispy in that dist. from 13th June 1898.

Babu Kotisvar Guha is confirmed as a 3rd grade Hosp. Asst. in Assam from the 9th May 1898.

Babu Apurba Kumar Bose, a passed student of the Orissa Med. School, is apptd., on probation for six months, a Civil Hosp. Asst. in Assam and is posted to Dibrugarh for duty as a supy. from 13th June 1898.

Hosp. Asst. Ram Lochan Das, in med. charge of the Rupsi Dispy. in the Goalpara dist., is apptd. to the med. charge of the Krishnai Dispy. in that dist., 14th June 1898.

Hosp. Asst. Gobinda Chandra Das, in med. charge of the Gauripur Dispy. in the Goalpara dist., is apptd. to the med. charge of the Darrangiri Dispy. in that dist. from 16th June 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Re. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

MARRIAGES.

D'SILVA—BALLARD.—On the 22nd June 1898, at the Church of the Holy Cross, Perambur, by the Rev. C. N. Bensly, Edition Chaplain, Charles Alexander D'Silva, second son of Apothecary F. D'Silva, to Lucian Mary, daughter of Mr. J. W. Ballard.

VAUGHAN—SINCLAIR.—On the 29th of June 1898, at St. Andrew's Church, Darjeeling, by the Rev. C. J. Palmer, Chaplain, Surgn.-Capt. J. C. R. Vaughan, I.M.S., (Benj.), to Dora Eleanor (Daisy), Second daughter of William Sinclair Esq., of Stein Thal, Darjeeling. English papers please copy.

DEATHS.

CLIFFORD.—On 15th June, at St. George's Road, Frederick Morrison Clifford, late Surgn.-Genl., I. M. S.

YOUNG.—On 18th June, at Wiltshire Road, Brixton, Surgn.-Genl. Young, M.D., aged 81

ADLEY.—On 18th June, Surgn.-Genl. William Henry Adley, of Cleddy Lodge, Haverford west, late Her Majesty's Indian Medical Service, aged 70.

LUMSDEN.—On the 30th June, Quetta, Baluchistan, Henry Arthur, the dearly loved and only son of Surgn.-Capt. and Mrs. J. S. Lumsden, I. M. S.—aged one year and six months.

REILLY.—On the 3rd July 1898, Free School Street, after a long and painful illness, Janet Clarissa, relict of the late Dr Edward Reilly, late I. S. M. D, aged 68 years and 15 days. Deeply regretted by her sorrowing children.

NOTICES TO CORRESPONDENTS.

Z. Y. K. (Manipur).—None but the holders of University degrees are entitled to use the term doctor before their names. A Hospital Assistant is certainly not entitled to style himself doctor.

A. R. (Allahabad).—(1) Your fee should be one hundred rupees. (2) Refer the matter to the British Resident of the Native State. (3) Failing to receive satisfaction put the case in the hands of your solicitors.

G. E. C. (Bandikui).—The *Register* ought to be out in a few days now. The dislocation of every enterprise in Calcutta, due to the plague scare, is responsible for the delay. The whole question of qualifications is up before Government. Nothing can be done in individual cases at present. Your name is registered as desired.

H. D. C. (Naini Tal.)—Your name has been registered.

J. M M. (Rajputana).—Many thanks.

Non-advertiser sends the following for publication:—"Dr. ALICE VAN INGEN, M.D. U.S.A., L.S.A. London, Gold Medallist in Midwifery and Gynæcology (diseases of women and children), with eighteen years' experience, may be consulted at Messrs. PHILIPS & Co., Byculla, daily (except Sundays) from 10 to 11 A.M., and at Messrs. PHILIPS & Co., Fort, daily (except Sundays) from 8 A.M. to 9-30 A.M., also at the Dispensary, Wari Bunder Road, Mazagon, daily at 2 to 4 P.M. (except Sundays). Or by special appointment at any time. Dr. VAN INGEN resides at the Temperance Hospital, Wari Bunder Road, Mazagon, and will be willing to attend patients at their own homes. Fees moderate. Telephone any time.

FEES.—*Advice at Dispensaries.*—One rupee. Gratis to poor.

Calls from Dispensaries (at hours of sitting)—Two rupees.

Calls from Residence.—Five rupees.

Midwifery Engagements.—From twenty-five rupees and upwards according to patient's circumstances.

THE PRODUCTION OF CHLOROFORM ANÆSTHESIA.*

By Surgn.-Lieut.-Colonel Edward Lawrie, I.M.S., M.B., Edin., M.R.C.S. Eng.

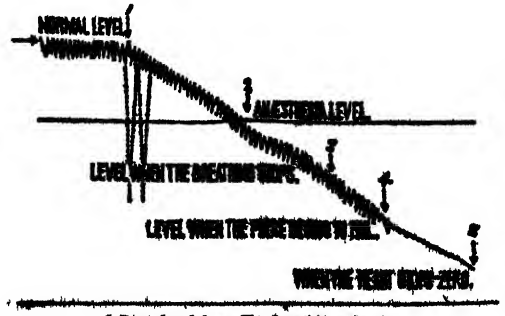
Residency Surgeon, Hyderabad, Deccan.

The following are the notes of chloroform administration at the Afzulgunj Hospital during April, 1898. The chloroformist for the month was Olivia Correa, a third-year student at the Hyderabad Medical School :—

1. Total number of cases chloroformed during the month, 221.
2. Cases of partial anæsthesia only for brief minor operations, 88.
3. Average age of patients chloroformed, 24 years.
4. Children below the age of five chloroformed, 48.
5. Average time to produce anæsthesia, 3 min. 2 sec.
6. Average time to produce anæsthesia in children under five, 1 min. 15 sec.
7. Average time to produce anæsthesia in adults, 3 min. 36 sec.
8. Morphine administered beforehand in cases, 3.
9. Average quantity of chloroform required to produce full anæsthesia, 2·95 drachms.
10. Rate in minims of chloroform applied to the cap per second, 0·96 minim per second.
11. Average total amount of chloroform employed per case, ¼ drachms.
12. Average duration of operations, 12 min. 13 sec.
13. Cases in which struggling occurred, 50.
14. After effects, vomited, 3.

The chloroformist at the Hyderabad hospitals is as a rule a fourth-year student, but this session we have been obliged to entrust the anæsthesia to third-year students as all our senior students are out on plague duty in the districts. The plan of chloroformisation we employ is that of Syme. Syme's method of giving chloroform consists in keeping the patient's breathing regular under all circumstances ; in entirely disregarding the heart and circulation as factors in the administration ; in never pushing the inhalation beyond the point where anæsthesia is complete ; and in maintaining the narcosis as long as the operation lasts at the " anæsthesia level" (*vide* diagram).

The following diagram of the blood-pressure under chloroform shows (1) precisely how Syme's method works in practice ; and (2) the effects of abnormal anæsthesia and of over-dosing.



Explanation of the Diagram of the Blood-Pressure under Chloroform : the Diagram reads from Left to Right.

Part I.—Normal Anæsthesia.

1. The first part of the tracing as far as arrow 1 indicates the normal level of the blood-pressure before the inhalation of chloroform is begun.
2. At arrow 1 the inhalation of chloroform is commenced.
3. Provided there is continuous regular breathing the blood-pressure falls gradually until anæsthesia is complete at 2. The fall of blood-pressure up to this point is due to vaso-motor dilatation and is perfectly harmless.
4. When the point indicated by arrow 2 is reached and anæsthesia is complete, which is known clinically by the cornea becoming insensitive or the breathing stertorous, the inhalation is stopped and only sufficient chloroform is given afterwards to maintain the blood-pressure as nearly as possible at the " anæsthesia level."

Part II.—Abnormal Anæsthesia and Overdosing.

5. The dotted lines in the diagram show what happens when chloroform is given with too little air or in such a manner that the patient's breathing is interfered with. The blood-pressure falls irregularly and with sudden deep drops which used to be thought by the Glasgow Committee to be caused by sudden heart failure. Dr. Bomford discovered that these sudden falls are due to nervous agency through the vagus which, when overdosing is threatened, temporarily stops or slows the heart as a safeguard against the over rapid conveyance of the anæsthetic to the brain. Whether they are safeguards or not, these irregular falls ought never to be brought about, as they carry the blood-pressure below the " anæsthesia level " and are abnormal. The danger of irregular respiration is that it may lead to the inhalation or gasping in, of irregular quantities of chloroform and render overdosing imminent.

6. If chloroform is pushed beyond the point where anæsthesia is complete the respiration becomes impeded and the heart begins to fail. At arrow 3 the breathing ceases ; the pulse fails at 4 ; recovery is then almost impossible, and the heart stops at 5.

(The more the air is excluded when chloroform is pushed, the more rapid and irregular will be the failure of the heart and circulation. Undoubtedly the pulse will show signs of this, but it can never convey more than second-hand information that the breathing has been interfered with or that the patient has been overdosed, for both of which, clinically or experimentally, the chloroformist is alone responsible.)

Proceeding on Syme's plan the administration of chloroform is never pushed below the " anæsthesia level." It is obvious that the region of danger is not entered or even seriously approached, and that unless Syme's rules are accidentally disregarded no risk whatever from chloroform anæsthesia can ever arise. On the other hand, those who believe that chloroform has a direct action upon the heart must be guided, more or less by the pulse, which is to them an index of unavoidable danger and necessarily one to be anxiously watched. But the experiments of the Hyderabad Commission and

* Reproduced from *The Lancet* by request.

my cross-circulation experiments[1] have long ago proved that chloroform has no direct action on the heart. Accordingly, the moment the circulation is made a principal factor in the inhalation and is watched for effects which can only be produced indirectly through the respiration, an appreciable element of peril is introduced which makes the method of administration itself *more or less* homicidal. This must be clearly understood. It is not only that "watching the pulse" distracts some of the chloroformist's attention from the all-important breathing, but it is manifestly useless to watch it at all except as a danger signal, and as a danger signal it can only be brought into action by conditions for which the chloroformist is himself responsible, such as abnormal administration with too little air, or overdosing. The measure of heart failure under chloroform is demonstrably the exact measure of the amount of the chloroformist's attention which is withdrawn from the breathing and bestowed upon the pulse; and the diagram proves that if the pulse were to be taken as the sole guide to dosage the administration of chloroform would not only never be free from risk, but would of necessity be uniformly fatal. What is shown so definitely and admirably in the diagram is fully borne out in clinical practice. In Hyderabad chloroform is given by students in strict accordance with SYME'S principles, the heart is ignored, and we have no deaths. In England the teaching of anæsthetics is in the hands of professional anæsthetists who "funk" the heart and deaths from chloroform take place, according to LEONARD HILL, by the dozen and, according to ROGER WILLIAM, no less than once in every 1236 inhalations. The death under anæsthetics in England represent an appalling picture of the incapacity of the medical profession as regards the administration of these drugs. This incapacity is altogether due to the absolute want of training of English students in the art of chloroform administration on SYME'S principles, which have been established on a scientific basis by the Hyderabad Commission. We, at Hyderabad, have always said that if students in India can be taught to give chloroform with guaranteed safety, *a fortiori* the splendid men who study in the London medical schools with all their superior advantages can be taught to do the same.

[1] Hyderabad.

A METHOD OF ARTIFICIAL FEEDING OF INFANTS.

By HENRY HUDSON, M.R.C.S., L.R.C.P.,
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THE artificial feeding of children in India, especially of European children, is beset with even more difficulty than in a temperate climate. The following method, lately written out at the request of a friend for his own guidance, does not profess to be the best method for every child. It has, however, been found to be successful and practicable in the case of one of my own children; and possibly concise directions may be useful to other practitioners who have not had special occasion to adopt well known principles of dieting infants to Indian conditions.

The directions pre-suppose a somewhat weakly child, whose case is not suited by the ordinary and easier methods, such as simple dilution of cows' milk. The practitioner may of course in individual cases see reason to modify proportions, or may find that some other method suits equally well and is more convenient, any intelligent mother or nurse, however, can be made to understand and carry out this method.

The most satisfactory plan is to use a steriliser not only because the child has thereby a better chance, but also because its use lessens trouble. For a journey it is a great convenience to sterilise 24 or 48 hours' supply of ready-mixed food. Sterilisers for milk are sold by the instrument-makers; but the essential parts are simple enough in construction and could be made cheaply, especially from a copy, by an intelligent tin-man in any ordinary bazaar. However, these directions do not presuppose the possession of a steriliser. Sterilising milk is said to destroy or diminish its antiscorbutic properties (*vide Lancet*, 1st January, 1898), and should therefore, not be done unintermittently for months.

Take of
- Cow's milk (fresh or boiled), the top creamy part, one ounce by measure.
- Whey, prepared as below, one ounce by measure.
- Sugar of milk, 15 grains, about ½ a small teaspoonful.
- Lime water, ½ to one teaspoonful.

Give this mixture at blood-heat in a perfectly clean boat-shaped bottle with a clean teat. The child will probably not take all. *To prepare the whey.* Add a teaspoonful of good essence of rennet (*e g*, Crosse and Blackwell's) to a large tea-cupful of milk at blood-heat (*i.e.*, about 98°, neither hot nor cold) Let it stand for an hour, when, if the rennet is good, it will have set to a junket. This will keep good on the plains for at least 12 hours. Take three or four heaped teaspoonfuls of the junket, or sufficient to form one ounce of whey, boil these three or four teaspoonfuls, and then carefully strain out all the curd through a piece of clean cloth. Dissolve the sugar in the hot whey, and add the mixture of sugar and whey to the milk.

The above mixture is suitable for a child three days old. During the first 12 hours little or nothing should be given; during the next 24 hours the above mixture with the addition of two or 3 teaspoonfuls of warm water may be given every four hours. The interval should then be gradually lessened till the child on the third day is taking the mixture, without any addition of water, every two hours during the day, and every two or four hours during the night.

Towards the end of the first month the quantity of food given at a time should be gradually increased, and at the same time the proportion of milk increased.

If the child passes undigested curd, the proportion of milk must be lessened. If the child is constipated, the lime-water may be diminished, constipation is sometimes righted by decreasing the proportion of milk, or by gentle massage of the abdomen with oil.

The mixture must be prepared freshly each time, unless a milk steriliser is used. For sugar of milk, white lump sugar may be substituted, but the natural milk-sugar is preferable, especially until the child gains strength.

Towards the end of the first month, and sometimes even earlier, the addition of *not more than a small tea-*

spoonful of Mellins' (or some other malted) food is sometimes useful. It must be thoroughly dissolved in the whey. At this stage Mellins' food is not to be looked upon as suitable nourishment for the child. It may be added often with great advantage when (1) there is constipation, (2) when owing to the child's inability to digest even the amount of curd contained in the milk and whey mixture, it is not taking a sufficiently large proportion of milk. Usually lime-water will not be necessary when Mellins' food is used. The latter is slightly alkaline, and slightly laxative, and helps to keep the cows' milk from forming into stiff curd.

The best guides as to whether the food is suiting are, (1) increase of the child's weight; (2) the passing of the normal mustard-like motions, free or nearly free from white lumps of undigested curd. Occasional vomiting need excite no alarm. It must be remembered that the child normally *loses* weight for the first two or three days.

If the child persistently passes curdy, frothy, green motions, and suffers from colic and straining, drop the milk altogether and give only whey and sugar, for a day or two; then gradually return to the milk again. If the mixture still does not suit, substitute cream for the milk and gradually return to the milk again.

During the *second month* and often earlier than this, the proportions may be gradually altered to milk, two ounces, and whey, one ounce. During the *third month*, it is useful to add a gradually increasing quantity of Mellins' food. This should certainly not exceed two teaspoonfuls till the third month is passed. At six months it may be given more freely.

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SOME SURGICAL SINS.[a]

By Emory Lanphear, M.D., Ph.D., LL.D.
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There are a number of "sins of omission as well as of commission" which surgeons may well pause to consider. Let no man lay flattering unction to his soul and say: "This is not for me." Wait and see! Profiting if there be aught to censure in your work.

First Sin.—Operating on Hopeless Cases.—There are some—and they are called surgeons—who will undertake almost any kind of an operation regardless of the prospects of cure or failure, nay, even of life or death; and sometimes without consideration of the question of their ability to do the work properly.

The incentives are: (*a*) to get a good fee; (*b*) to have the credit of operating, especially in rare or difficult cases; (*c*) to obtain control of the influential patient from a conservative physician who, recognizing the hopelessness of the case, is doing all he can to ameliorate suffering and prolong life, but persistently refuses entreaties of patient and friends to "do something"; (*d*) ignorance of the real condition.

The objections to operating in cases well-known to be hopeless are: (1) It is wrong. The doctor who will operate upon a case merely to secure a good fee, knowing perfectly well that death will follow, or that no benefit will be gained, is no better than a common thief! And the surgeon who will, under like circumstances, operate before a class merely to demonstrate the technic of the operation and show his own adeptness, is little better. Yet I have heard a "professor" in one of the schools of St. Louis confess to this practice. (2) It brings discredit upon surgery. Therefore, I plead for (*a*) more careful examination before operation, (*b*) more thorough diagnostic and prognostic skill, (*c*) more judgment in the selection of cases; for I am charitable enough to believe that most operations upon hopeless cases are performed, not through desire of notoriety or gain, knowingly to the detriment of the patient, nor yet as an attempt, to gain an advantage over a rival, but through ignorance of the actual condition and of the prospects for recovery after operation; indeed, I, myself, must plead guilty to having been indiscreet in the selection of cases in the enthusiasm of my early work. Verily, wisdom increaseth with age—and experience. (3) It prevents other patients with similar disease from submitting to operations clearly indicated. I recall an instance in point: I was called to Nebraska to remove a cancerous breast; it was too far advanced to cure; operation could but hasten death and increase suffering; I refused to do anything; after my departure the doctor amputated the breast without entering the axilla (!) and the woman died in six weeks. A lady upon a neighboring farm whom I saw at the same visit had a scirrhus of the breast just developing, almost consented to extirpation, waited, and was lost; she was "scared out" by the death of her friend; another life sacrificed through ignorance.

The diseases in which this mistake is most liable to be made are (*a*) appendicitis with perforative peritonitis; (*b*) cancer of the breast; (*c*) hip-joint disease; (*d*) malignant affections of the uterus; (e) severe, acute trauma where waiting a few hours would determine the question of life and death.

Second Sin.—Delaying Opinion as to the Gravity of a Disease.—This applies particularly to cases which the attending physician knows full well tend to a fatal termination if not subjected to early operation; yet he hesitates to tell the patient the character of the disease and the necessity for surgical treatment—waiting, tinkering, giving medicines, encouraging the patient with false hopes—hopes, he admits, based upon bubbles thin as air; but still waiting, ever waiting—for what, God alone knows. I never have been able to fathom such men, to determine why they temporize, too often until too late. One would think them few, but this is not true. Such men are numerous—I meet them quite frequently. Only a few months ago a physician brought me a case of cancer of the uterus from the Indian Territory, far advanced, stinking, yet still operable. He was well informed, a graduate of one of our best colleges; had treated the case for some months, recognizing its malignancy all the time. Yet he begged me not to tell the patient what was the trouble. He had informed her that a simple little operation would have to be performed for her "ulceration of the womb"—a "simple little operation:" hysterectomy! Well, I told her of her condition and of the prospects with and without operation, and let her decide. She submitted gracefully, and was sent home in three weeks relieved of present danger, possibly cured.

[a] Reproduced from the *Medical and Surgical Reporter* by request.

[illegal] for his death, and he forgave me for my [illegal] on account of the prompt recovery of his [illegal]. Such episodes are not at all uncommon. They are met chiefly in connection with (1) uterine fibromata, (2) cancer of the uterus, (3) cancer of the breast, (4) amputation—for septic wounds, osteomyelitis, tuberculosis, etc., (5) appendicitis, and (6) opening of purulent accumulation as (*a*) empyema, (*b*) psoas abscess, (*c*) cold abscesses of the neck, (*d*) pus in the joints, etc. I might dwell much longer on this topic but—*verbum sat sapienti.*

Third Sin.—Failing to Operate in depressed fractures of the skull.—Until quite recently it has been the teaching of schools to leave all fractures of the skull severely alone, unless some grave symptom demanded operation, regardless of depression. This was because there was more danger (before the days of antiseptic surgery) in opening up wounds of the head than in leaving them alone. And in these degenerate days, when even a JOSEPH LISTER takes a pocket case from his pantaloons, removes a knife, automatically dips it in carbolic solution and proceeds to operate, I am not sure but the old doctrine is still a pretty good rule to follow—for some operators. Indeed, I have recently seen some American surgeons who pretend to be moderately clean (more of which later) that I would not trust inside of my head. But presuming that every community now has at least one physician sufficiently familiar with antisepsis to keep his professional brethren of the neighbourhood from picking his instruments out of the solution to examine their construction (a thing that not infrequently has happened to me, and not always in the country, either), I must insist upon the future observance of AGNEW'S rule: "Every depressed fracture of the skull should be operated upon regardless of the amount of depression and irrespective of pressure symptoms." The reason for this is that nearly 50 per cent. of serious injuries to the frontal region, when not trephined, terminate in epilepsy or insanity; nearly all of which sequels can be prevented by operation at the time of accident. It is not good practice to wait for the nervous system to arise and then operate. The way to cure traumatic epilepsy is to prevent it; also, traumatic insanity.

But many men do not do this, especially in the country—why, I do not pretend to say. Timidity perhaps, possibly a fear of censure if the patient dies after operation; and of legal complications in accidents of homicidal origin. The latter often deters surgeons, oftener than justifiable, in all sorts of injuries—not to the head alone. And there are probably other reasons. Be that as it may, I know that many cases of depressed fracture are still left untrephined, for I meet such cases quite often and recent ones too. Doctors are too afraid of urging operations in such cases in opposition to the wishes of relatives and friends, and continue in charge of the case in spite of the whisperings of conscience that a wrong has been done in not insisting upon operation or quitting the case. I have little respect for the man who has not the courage to live up

[illegal] in a [illegal] for a [illegal] skull isn't raised, and the [illegal] didn't dare, remains in charge [illegal] or an insanity is put to the [illegal] settlement in the great hereafter. [illegal] a case in point.

P. G. was 52 years of age at the time of the operation. Some four years before he came under my care he was kicked upon the forehead by a mule. There was a marked depressed fracture of the frontal bone in the median line just at the margin of the hairy scalp; but as he fell into the hands of a "conservative" surgeon who believed that a depressed fracture should not be operated upon unless profound symptoms of pressure are present he was not trephined, because he was unconscious but a few moments, and very soon went about his business as if the injury were of no consequence. If a progressive modern surgeon had been called, who believed that every depressed fracture of the skull should be subjected to operation at the time of injury, however slight the depression, and irrespective of pressure symptoms, the most disastrous consequences might have been averted; for very soon a most remarkable change occurred in the patient. Before the accident he was an exemplary husband, and devoted father; a strong opponent of intoxicating liquors and a Christian gentleman; noted for his integrity and excellent character. But soon it was seen that his character was totally changed—he deserted his wife and sought the companionship of prostitutes; he was so abusive to his children when at home that they fled from him in terror; he became so addicted to the use of whisky that he soon wasted his property and sunk to the level of the drunken sot as often found in the gutter as in bed; he cursed and swore and seemed to lose all sense of manhood and decency—he was obscene, vulgar and debased. This condition continued for a period of more than three years with occasional intervals in which it was thought he was going to "reform;" finally, after a long debauch, suicidal and homicidal impulses became predominant, and at last the relatives consented to operation. Upon removing the depressed bone a large fragment of the vitreous plate was found projecting through the dura an inch or more into the frontal lobes. The superior longitudinal sinus was crushed and filled with organized blood clot, and much of the middle frontal convolutions showed signs of pressure but no decided degeneration. There was little shock and no meningitis following this extensive operation. A marked quietness instead of constant restlessness was the first change noticed in the mental condition; the countenance became more serene, the voice less coarse. As convalescence progressed, it was found that the patient was more like his former self—he greeted his wife and children with a pleasant smile and kind words instead of scowls and curses. And when bodily health was completly restored he became his old self once more; gentle, affectionate and trustworthy. This improvement was not temporary. More than two years have elapsed, and his mental condition is as good as before the accident. He recalls the incidents of his mad career as one remembers

[illegible] at the [illegible], and trying to forget the terrors of the past in the pleasant realities of the present.

Now here was a triumph of surgery, to be sure. But supposing this man had not fallen into the hands of one who could restore him; or that he had died while yet in his iniquity? If what the theologians tell us be correct, would not the doctor who failed to do his duty be held responsible for this soul's eternal torment? But—religion aside—from a purely ethical standpoint, has a doctor the moral right to commit this "third sin?"

Fourth Sin.—Pretending to be Clean, But Failing.—Every one now knows the inestimable value of asepsis; most surgeons pretend to practice it; nearly all fail. The clean (ideally, surgically, truly clean) surgeons of America do not number a dozen! I know them—I mean the leaders of the profession, not the hewers of wood and tillers of soil, not the common, everyday workers like you and me, but the men to whom we look for guidance. Why, I saw a "professor of surgery" in one of the leading schools of America, not long since, making a thyroidectomy before his class; his spectacles fell into the wound; he picked them out, deliberately readjusted them and went on about his work as if nothing had happened; and in reporting the case subsequently he wondered why he had pus in the wound—yet he would be scandalized if I were to assert that he doesn't practice aseptic, modern surgery! He thinks he does. It is just that kind of men who commit this "Fourth Sin." They are the men I am after, and they are not confined to America, either. England has but few men who are doing ideal work, and the continent is nearly as bad—or it has changed wonderfully since my last visit. The points of failure are:—

(1) Dirty finger nails. LAWSON TAIT's remarks that, "the high mortality rate in abdominal surgery found in the work of German surgeons is easily accounted for—they don't clean their finger nails," is applicable to the methods of some surgeons not Teutonic. Too many operators simply scrub their hands for a few minutes, wipe them upon a towel, wash in bichloride solution for an instant, and then proceed to operate.

Doctor! Does that apply to you? Now you know well enough that after carefully scrubbing your hands for several minutes you ought to dry them and closely trim the nails; then scrub with much soap and muscular energy for five minutes more and then sterilize them by (*a*) immersion in alcohol for at least two minutes, and then washing in sublimate solution, or (*b*) washing in saturated solution of potassium permanganate until hands and arms are of a mahogany color, decolorizing in a saturated solution of oxalic acid, and finally rinsing in sublimate solution 1 to 1,000, and then in boiled water. You know you ought to do this before every laparotomy (abdominal section), trephining, thyroidectomy, resection of joint, etc.—but do you do it? If not, you are guilty and need censuring.

(2) Carelessness in touching clothing, table, pulse of patient, handle of pitcher, etc., during an operation, and then going on without further washing, is entirely too common with those who are perfect in their methods of preparation. One of America's greatest teachers, writers and operators—a man of whom we are all proud—has to be constantly watched by his assistants in regard to his department of the "fourth sin;" in his enthusiasm, he forgets his own precepts. "To err is human." There is some satisfaction in knowing that Missouri does not have all the sinners. We all should be more particular about contamination of our hands and instruments during capital operations.

Eternal vigilance is the price of—asepsis.

(3) Carelessness in keeping and handling gauze. (*a*) It is too common a practice to keep dry gauze wrapped up in a paper which is hurriedly unrolled and handled with dirty fingers in cases of haste. If kept dry, a necessity with the iodoform variety, it should be rolled in aseptic, oiled paper, and placed in a tin box or glass jar which closes tightly, and occasionally re-sterilized by heat. Preferably, gauze should be kept in a glass jar in sublimate solution; tightly closed, and a dirty hand never trust down after a piece. I myself, keep two jars—one for dressings for pus cases, of which I am not so careful; the other for operations and aseptic dressings—from which the pieces are taken by means of a pair of forceps, sterilized by passing through the flame of an alcohol lamp before insertion in the jar. (*b*) Gauze is too often cut with scissors not sterilized, especially in making dressings. I know a surgeon of more than local reputation who invariably cuts his gauze for dressings with scissors taken from his velvet-lined pocket case; and he is a teacher, too. But that does not make it right. (*c*) Allowing assistants or nurses with suspicious hands to cut the gauze is just as bad. I recently saw a "trained" nurse in a hospital assisting at a removal of the breast; she was cutting gauze for "sponges"—moved the slop-jar under the table for the surgeon, handed the ether can to the anesthetizeur, and continued cutting gauze without a thought of washing. Such cattle ought to be taught the value of the Hindoo proverb: "Cleanliness is the key to heaven."

(4) Improper selection and management of instruments. (*a*) Those without metal handles—so that sterilization by boiling or otherwise is impossible; (*b*) those with old-fashioned points—so that perfect cleaning is unattainable; (*c*) failure to scrub and boil all instruments immediately after operation in septic cases.

Fifth Sin.—Under charging, in Order to Secure an Operation.—This is a sin too often committed by men who stand high in the profession; and this assertion is no idle figment of the imagination, either. As a young man, I am often compelled to bear the brunt of the sins of older men. For example, a physician in Northern Kansas made all arrangements for me to operate for an ovarian tumor; a banker's wife; fee agreed upon $500. The patient arrived at the hospital during my temporary absence from the city; banker "accidentally" fell into conversation with another, an older surgeon, who remarked that $250 was his (or to be charitable, perhaps, he may have said the) usual charge for such an operation; banker, on inquiry of nurses, physicians, etc., found this man to be "the best surgeon in the city," and he was $250 "ahead," I was $500 "out." Many such experiences have been mine; 'tis the fate of the young and the meek.

Hic fabula docet.—but this isn't a fable, and really is not supposed to teach anything, except, perhaps, patience—which, like the poor, the young surgeon must have always with him.

Sixth Sin.—Stealing Patients from Other Surgeons.—This is more often the the cause of hard feelings between surgeons than any other one thing, though, as it is done usually in such a genial, "ethical" way there is no recourse left to the injured party except to growl. Occasionally one, with more enthusiasm than discretion, "prefers charges—" which come to naught. But sometimes the biter is bitten. I recall an instance. I had made all arrangements to operate in conjunction with a distinguished surgeon of Memphis, upon a southern lady who had a very bad pyosalpinx; now, in the city where she was stopping there was a surgeon who had made a number of sections without a death and was very ambitious to reach the magical fifty cases without a death, beyond which world-wide fame is supposed to lie; he hearing of the case, managed to be introduced, and with an eloquence worthy of a better cause, persuaded her that he was the only man that could do the work well; he actually took her in his own buggy as he left, carried her to the hospital and operated upon her without any preparatory treatment, and without waiting to consult her husband, who had left the city for a day, the patient died a few moments after removal from the table, the surgeon "broke his record," received not a dollar, and made an enemy of the husband—but, as for me I am his friend still; it was simply a little professional indiscretion, bred of enthusiasm on his part But there are cases of genuine pure, unadulterated stealing, "too numerous to mention," as the auctioneer says, and too vexatious to repeat.

Seventh Sin—Representing Capital Operations as "Trifling."—In order to secure consent to operations some are inclined to belittle the dangers, represent the work as "trifling," etc. Of course I do not now refer to instances where there is good reason for not going into the details with a patient, explaining danger to such a degree as to cause refusal to consent to an urgent operation. Such cases are quite often met; and the explanations must be made to the friends, not the patient. But to gross misrepresentation or, at least, to the deception of silence as to the dangers. Once I was guilty of this sin, it was several years ago—when I was just entering upon my surgical work. I had a streak of good luck," had made some thirty or forty abdominal sections without any bad results, and I thought I could do anything in pelvic work; in my over-confidence I committed the "Seventh Sin," once more demonstrating the truth of BYRON'S words: "But ignorance must ever be a part of sin." A beautiful girl was brought to me from Southwest Missoury, with tubal abscess, double; she questioned anxiously if there were danger in removal, and I assured her there was none. I removed the tubes, secure in my faith in my own works. I knew not that I tore into the rectum in separating adhesions; she died of peritonitis—never uttering one word of censure, but oh! that look upon her face as she passed into the realm of shades! Then I felt indeed the grievousness of my sin. I believe I shall never again operate upon a patient except in emergency, without fully explaining the possibilities of the case with and without operation, letting him decide. And this is right.

Example teaches better than precept. One of our surgeons of international reputation had as a patient one of the wealthiest women in the city. Disease, ovaritis chronica. She was doing well under classic treatment and would have remained a semi-invalid to the end of her days, but was ambitious to be well, as became a leader of society. The doctor was likewise ambitious—to be known as an abdominal surgeon, and so he tempted the woman with hopes of health. He said: "Removal of the ovaries is a very simple, little operation: some morning I'll bring my table, my nurse and my assistants and we'll take out these little troublesome things and make you well." "And is there no danger, doctor?" "None in the least, madam." And she consented. Oophorectomy was performed. The next day the doctor left town for twenty-four hours. Patient developed peritonitis, called another surgeon, and was told next morning she had but a few hours to live. She prepared a surprise party for her physician. When he returned to town he hastened to her home and there found some twenty or thirty ladies, the most prominent and influential in his practice, gathered at the bedside. The lady reaching out her hand seized his in a grasp not to be shaken off. Calmly, amidst profoundest silence she spoke: "Dr. ——, I was a happy woman, an invalid to be sure, but happy in the love of relatives and friends, surrounded by all the comforts and luxuries that wealth can provide, not suffering much though wanting health. I could have lived for many years in the peace and happiness of my family. But in an evil hour you came and sang the siren's song. You told me there was no danger. Now I have peritonitis—am dying by your hands. Do you deserve further confidence or success? No. I have called your friends to hear my last words to you. With a dying woman's breath I curse you. Go!" As she flung his hand from her he went—and his business went also. Need more be said?

Eighth Sin.—Keeping Patients too Long Under Chloroform.—'Twas the ambition of surgeons prior to 1846 to operate rapidly; he who could most quickly perform an operation was rated the best surgeon; in celerity was success and reputation. But with the introduction of anesthesia the other extreme became more and more popular until today the whole city of New York does not contain a half dozen operators who insist upon speedy work even in the abdomen. Many indeed say: "It does not matter how long the belly is open if one is clean and the room is warm." Fatal error. Nowhere in surgery is haste more necessary than in abdominal and pelvic work; the man who can most quickly open the abdomen, do his work rapidly, yet well, and close his wound with least delay is the one who will have the best mortality rate and in spite of the fact that he does operations that the slow man would not dare to attempt. The advice of a great operator anent ruptured tubal pregnancy is apropos "Get into the belly as soon as you can, but for heaven's sake get out."

Beside the danger of long-continued exposure of surfaces liable to be infected, with consequent disea-

tissue results, there is the greater one from the anæsthetic itself. We have been wont to ignore this; with immunity from pain and perfect quietness, we forget that at every operation, however small, in which chloroform or ether is given, our patient is literally carried to "the valley and shadow of death," and though he oft apparently returns in safety, in a few hours may pass beyond. "Shock" is usually due; to (1) excessive hæmorrhage; or (2) prolonged anæsthesia, and many a death certificate has been filled in with "shock" when the real cause of death was too much chloroform or ether. Nor is this danger all. Even though the patient recover from the immediate influence, if he has been kept too long in complete narcosis the remote effects upon the nervous system may be profound and lasting As WHEATON says:

"There is little doubt that anæsthesia is responsible for this adding of weeks, months, and perhaps years, of suffering and woe and that many a tortured nervous system lives to-day to testify to the truthfulness of this statement."

In doing our operative work we should, therefore, ever bear in mind "Ariston metron" —the golden mean—the middle course is best; not using undue haste at the expense of safety nor keeping our patient too long under the ever pernicious influence of anæsthetics. Unwise speed is bad; "chronic surgery is worse."

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THE DANGERS OF RECTAL OPERATIONS*

By JOSEPH M MATHEWS, M.D.

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WERE a patient to ask Is there any danger in operating for internal hæmorrhoids? You might likely very flippantly reply. "No, there is no danger." At the Cincinati meeting of the American Medical Association, I reported 2,000 operations for hæmorrhoids without a single death; but on my return from that Association I lost a beautiful woman from the simple operation for internal hæmorrhoids. If you lose one patient in 2000 you cannot say that the operation is devoid of all danger, since there is always the risk of (1) hæmorrhage (2) sepsis, and (3) contraction of the anal orifice.

Not long ago a man died during the night from hæmorrhage after he had had a couple of internal piles ligated at the Louisville City Hospital and even the great authority Dr. SAMUEL D. GROSS reported a similar experience. True it might not happen once in 500 operations; but there is always the risk of inadvertently dividing a very important artery while making the incision for the legation method of removing piles. If seen in time twisting, torsion, pressure, application of hot water, &c, may stanch the bleeding, but it is quite possible that the bleeding point may escape discovery till too late to check it.

There is a great distribution of nerves and lymphatics around the rectum and no matter how small the incision round the base of a pile, it is still an exposed wound in which a septic condition may ensue either from inflammation or from the passing of fæcal matters.

On one occasion, I ligated seven large hæmorrhoids in a young lady. Good recovery followed; but 10 days after I had discharged her, her father came to me saying that though she had taken purgatives, &c., and desired to go to stool, her bowels could not be moved. On examining her I found that the hæmorrhoids had sloughed off, and the surface of their sites had united completely, and absolutely so as to totally occlude the anal orifice. As there are traumatic strictures not involving the sphincter ani all that is required is to introduce the speculum or dilator and break down the adhesions.

Simply dividing the main channel will never effect a cure in many cases of *fistula in ano*, where you have to search with your probe for additional channels which often run in all directions and sometimes in close relationship to the urethra or perhaps under an important artery distant from the anus. Division of the main tract in such cases is *dangerous*, by reason of injury to adjacent structives or organs, but chiefly by division of the sphincter muscle which refuses to be repaired, and you have to choose between finishing your operation or not. I would much rather do a half-way operation and fail to cure the *fistula in ano* than divide the sphincter and condemn the patent to life-long fæcal incontinence. Never stretch an incomplete or crippled sphincter during the operation and above all never divide that muscle *more than once*. There is no sense in dilating, stretching or breaking the sphincter previous to laying open the fistula, as you will have to divide the sphincter muscle in doing the operation for fistula.

Whenever you hear of a protusion from a child's anus, make up your mind that it is not piles. Children, up to 14 years of age do not have piles. It is either a prolapse of the rectum or it is a polypus, which (latter) is a tumor attached to the mucous membrane or the walls of the gut by a pedicle which is usually 0 5 to 1 inch long, but may grow to seven inches in length. The usual procedure is to twist the polypus off the pedicle and its included artery, sometimes a good sized artery—but you can never exactly tell whether you have twisted sufficiently or not to prevent hæmorrhage after the polypus has been torn away If the pedicle is long, lax and tough enough to bear tying, certainly do so, but remember there is always the danger of the ligature cutting through the stump of the pedicle and letting the patient bleed to death: Especially if the pedicle be attached high up (two to five inches away) and the base of attachment is not only beyond the reach of the clamp-forceps but also may not be easily recognizable. The best thing to do in such a case is to dilate the rectum well and pass a plug (made of iodoform gauze wrapped round a hard rubber tube) as high as it will go and removing the speculum let the gut grasp the plugs, which should be soaked in a solution of persulphate of iron (diluted half-and-half with water) or diluted MONSELLS' solution.

Capillary piles are very dangerous as they bleed vigorously and are often so high up as to puzzle many a physician as to the true source of the excessive hæmorrhage. You may open the anus and see neither

* Report of a Clinical Lecture delivered at the Kentucky School of Medicine Hospital.

haemorrhoids nor protusion of the bowel, but you will find a congested condition with exposure of an artery which is the cause of all the trouble. This bleeding must be stopped. This is done by plugging the patient's anus with iodoform gauze soaked in a five, per cent. solution of MONSELL, wrung out half dry and deposited just inside the rectum so that the anus will grip and maintain it in position after the speculum or dilator is removed. Give the patient a morphia hypoderm, repeated *S. O. S.*, in an hour or two. As the action of the rectum will expel this plug within 20 minutes if left to itself, get the patient herself, or a nurse to keep her hand tightly against the rectum for at least one or two hours, by which time the pain will have vanished and the bleeding ceased as well as the patient cured. Thus proving beyond all doubt that the hæmorrhage came from the lower end of the rectum and not from above as there is no condition of the colon save that of cancer, that would cause the loss of a pint of blood. I do not agree with those persons who say that an ulcer in the upper part of the rectum, or in the colon or in the sigmoid flexure must cause the hæmorrhage, as an ulcer is a pathologic condition with a deposit of fibrin or lymph which *prevents*, *not* promotes bleeding There are cases where an abrasion or injury to the bowel by a hard piece of fæcal matter or something of that sort might cause hæmorrhage, but such cases are rare indeed, and even then the bleeding can, in 99 per cent. of them, be stopped by simply plugging the rectum with iodoform gauze dipped in MONSELL'S solution.

Lastly, always apprehend a violent hæmorrhage in dealing with a rectal stricture, which is benign in its nature and it is a great mistake to think that a constriction of the sphincter through which you can pass your finger only—with no ulceration above—is a simple stricture easily reached, easily handled and easily treated, for the real operation for such a condition is either division or breaking of the stricture with considerable danger.

GUNSHOT INJURIES AND MODERN PROJECTILES.*

BY HENRY J DAVIS, M.A., M.D., B C. (Cantab.)
Late Surgeon, National Fund for Greek Wounded and late House Surgeon to St. Thomas' Hospital, London.

ALL bullet wounds, except those limited to the soft structures, result in compound fracture of bones, or as Sir WILLIAM MCCORMAC puts it, a bullet wound is "an extreme form of contused wound combined with the dangerous depths of a punctured wound" whose, (1) hygienic surroundings are invariably bad while the wound is, (2) an infected one, (3) devoid of drainage owing to the long sinus left by the track of the bullet. Shell wounds, on the other hand usually result in extensive lacerations of the soft tissues, with perhaps comminution of the bones as well.

The Martini Henri, Enfield, Le Gras, Manser and Lee-Metford are the types of rifles chiefly used in European warfare. The disadvantages of the Martini rifle when compared to the present magazine rifle is that it "kicks" hard and does not repeat, and the cartridges are heavy to carry, but for all that it is a deadly weapon whose bullet does a great deal of damage and can sooner stop the rush of an enemy than can the projectiles of the majority of the 'repeating arms.' Conical bullets never make the wounds that round balls do, but the trajectory is flatter, they carry straighter and kill at a greater distance. The velocity of the Manser bullet is something terrific—being effective up to 4,000 yards, but it does little damage, compared to the Martini which, when it strikes a bone such as the femur, fissures and splinters it in all directions. The French Le-Bel bullet in every way resembles the Manser and to a very great extent the first Lee-Metfords used by the British army. It consists of a soft lead core inside of a nickel casing and theoretically the ball flattens or splashes on impact, but this it does not always do owing to its great velocity, which renders it more effective at long distances than at close quarters, as was proved by firing at an old donkey who was eating hay in a paddock. Three shots fired at him passed 'clean through him without at all disturbing him from his meal until the consequent peritonitis made him desist. In the Chitral expedition the Lee-Metford bullets could not stop the wild rushes of the tribesmen until the nose of the bullet was cut or rubbed off and the soft lead core made the striking point. In the latest Lee-Metford the soft lead nose projecting beyond the nickel jacket mushrooms out—on striking—and the less yielding metal behind becoming impacted so as to flatten or plash the ball a very cruel wound is made The famous Dum Dum bullet which is a modification of the Lee-Metford and has a *flat* nose which does not project far out of its *very* thin nickel shield, collapses 'like a Concertina' making so ghastly a wound that it would be forbidden in European warfare. This expansive principle has been carried to its greatest extent in the "Webley's patent man stopping bullet" whose deep cup shaped nose acts like a wadding punch, cutting a clean circular hole which does not close up. Expansion commences at once and after travelling 6-inches into the body it produces a jagged hole 4 inches in diameter—quite sufficient to finish even a fanatic, but neither of these last two described bullets form conspicuous proportions of the armaments of Europe and the Dum-Dum bullet is still 'under trial.'!

The character of the wound necessarily differs a little according to the bullet making it; but in the majority of instances the comparatively little damage done by rifle bullets is truly surprising In most of the wounded men the ball had passed straight through the part struck, leaving a tiny bluish black hole at each end Some of the edges of the entry wounds were *everted* and the exit wounds had *everted* edges, but in the majority of the cases the wound of entry and that of exist seemed the same. So much so that even the patient could not (often) tell the one from the other. Some, especially the oblique wounds were round and gaping and the area of the internal wound more than often bore no proportion to that of the external one. In some cases the ball ripping through the tissues carries in pieces of cloth or other foreign bodies which are left in the bullet track to lead to suppuration, or to the formation of a troublesome sinus that needs continued tinkering.

* Abstract of a paper read before the West London Medico-Chirurgical Society.

The velocity, however, of the Lee-Metford and other modern bullets is so high that at close quarters pieces of cloth &c., are not carried before the bullet in its track and the severity of the wound as regards infective processes is thereby diminished, even though the extent of the deep injuries inflicted bear an out-of-the-way proportion to the small area of the external wound.

Bone injuries of the upper extremities heal much quicker than those of the lower. Heel and ankle injuries do badly. Unless it is 'keyhole' the fracture is nearly always comminuted and many of these fragments though denuded of periosteum do not necrose, but afford 'stages' for granulations to grow on and to ossify. Healing may occur without apparent inflammation; but should the latter set in the hard substances take on a passive, while the active inflammation is limited to the soft structures in the Haversian canals, which may become swollen and œdematous from exudation with the production of new bone. The heat produced by a bullet striking the bone adds to the severity of the injury which may result in osteitis, requiring continual surgical interference, or even in periostitis.

Joint injuries.—That a bullet wound of the knee-joint does not always suppurate, even though it may lame the patient for life, was proved by the Mayor of Lamia accidently shooting a woman in her right knee, which the bullet perforated. She attended the Chalcis Hospital as an out patient. The limb was placed in an improvised splint. There were not the slightest signs of suppuration, and after a few attendances she was almost well when she suddenly disappeared.

Injuries to soft parts vary considerably:—

(*a*). If a bullet strike a man obliquely a simple *contusion* may result, or there may also be a subcutaneous fracture.

(*b*). A ball may run parallel to the surface grooving it and making a *furrowed* wound, which is by no means uncommon.

(*c*) A ball fired obliquely burrows for some distance just under or a short distance beneath the skin and then emerges, making a *seton wound* which often results in a persistent and troublesome sinus, if not in death.

(*d*) Sometimes a ball enters tissues and falls out again A soldier was shot in the left erector spinæ. As there was only a wound of entry he was asked whether the field Surgeon had removed the ball. His reply "No" prompted a fruitless exploration. There were no signs of abdominal injury, so a second search was made for the bullet and in enlarging the wound to do the needful the poor fellow was put to so much pain that he asked what we were trying to do with him and on being told that we were trying to extract the bullet, he replied "I have it here in my shoes. I found it in my trowsers after the battle."

(*e*). A bullet may perforate a part of the body and emerge almost unchanged, or it may itself be comminuted without necessarily fracturing a bone, which is really not so hard as is assumed.

Chest injuries are very troublesome. In the Græco-Turkish War a Martini bullet passed through the left shoulder—humerus uninjured—of an Evzone, into his lung where the X-rays shewed it inaccessibly lodged. Pneumonia, pleurisy, hæmorrhage into the pleura and empyema rapidly supervened. The chest was aspirated and a portion of rib excised, but the ball which could not be removed, afterwards became encapsuled. He became extremely ill and would have died but for excellent nursing by the Red Cross Sisters. In another case where a man was shot through the right chest the ball had smashed a rib and perforated pleura, lung and diaphragm, had also injured the liver. He survived his terrible injuries.

Pelvic and abdominal wounds are very serious and used to be a frequent cause of pyæmia. The mortality from them is rather high specially where the bowels or bladder have been perforated. Laparotomy has proved useful in some cases but the majority die from severe traumatism or from acute emphysematous gangrene.

A MIRROR OF PRACTICE.

BRIEF NOTES OF THE TREATMENT OF THE NATIVES WOUNDED AT DARGAI.*

By Surgeon-Captain J. Davidson, I. M. S.
Native Field Hospital (No. 52), Line of Communications, Tirah Expeditionary Force.

After the fight at Dargai on October 18th, 1897, 14 wounded native soldiers were admitted into this field hospital—Sections B. C. and D. of No. 52 Native Field Hospital—and after the fight on October 20th, 52 cases of gunshot wound in native soldiers were admitted. Of the total 66 cases of gunshot wound, there were:—

1. Flesh wounds—of head and neck, 5; of trunk, 17; of upper extremity, 9; of lower extremity, 19.
2. Penetrating wounds of the abdomen, 2.
3. Wounds complicated by fracture of bones—of head, 1; of trunk, 1; of upper extremity, 5; of lower extremity, 7,

The only case that ended fatally were the 2 penetrating wounds of the abdomen, and 1 case in which six wounds were received, one of which caused a fracture of of the bones of the left forearm. Secondary amputation was subsequently performed at the General Hospital, Rawal Pindi, but the patient died.

No operative procedures were found to be necessary beyond incisions for the extraction of bullets that had lodged, and one counter-opening for drainage. The bullets extracted were for the most part Snider, ricochets, and a few round bullets. The treatment adopted was to avoid as much as possible all probing or insertion of the finger into the wounds, to cleanse the wounds and the skin around them thoroughly by perchloride of mercury lotion, to dust the wounds with iodoform, and to cover them with boric lint wrung out of perchloride of mercury lotion and with antiseptic wool.

Case I.—A Goorkha rifleman, admitted on October 18th, had received a wound about 1 inch in diameter in the centre of the forehead, about 7 inches from the roots of the hair. He did not seem to suffer any inconvenience from it. On examination by the finger, a small depression was found in the outer table of the skull and a fissured fracture extending from the depression could be detected by the nail. Next day slight bleeding from the nose occurred, but he afterwards recovered without a bad symptom so far that he was sent to the General Hospital at the base.

Case II.—Another Goorkha was admitted the same evening with an entrance wound 3 inches above and in front of the right great trochanter, and an exit wound in the middle line over the centre of the sacrum. The small size of the wounds made it seem probable that the injury was due to a solid Lee-Metford bullet. The wound was not probed, nor was any drainage tube inserted, and under the simple antiseptic dressing described above both wounds had healed up completely within a fortnight without the formation of a drop of pus. A small knob of callus developed near the exit wound where the sacrum had been penetrated.

Case III.—A Goorkha rifleman, wounded on October 20th and admitted on 21st, had received a fracture of

* Reproduced from the *British Medical Journal* by request.

the right femur in the middle third. The wound of entrance was on the outer and anterior part of the middle of the thigh, and the exit wound was in the middle of the back of the thigh. No drainage tube was inserted and under the dressing described the wounds healed without the formation of pus. The splint used was a long wooden splint reaching from the axilla to beyond the sole of the foot; a perineal bandage was applied to prevent shortening. On the transfer of the patient to the base on 9th December, the femur had united with only three quarters of an inch of shortening.

CASE IV.—In another case of fracture of the right femur admitted on the same day, the wounds of entrance and of exit were on the outer and inner sides of the thigh respectively, 3 inches above the lower end of the femur. The limb was placed in a wire backsplint (with side and foot pieces) which reached from the middle of the thigh to beyond the heel, and had a slight bend at the knee; over this a long wooden straight splint reaching from the axilla to beyond the sole of the foot was applied, and extension was maintained by a perineal bandage. In the first day or two the knee-joint became greatly distended, the skin over it was dark in colour, and the patient suffered from fever It was feared that suppuration had occurred, but only serum was found on puncture by a hypodermic syringe The swelling of the knee subsided under evaporating lead lotion and the fever subsided with it. But a fortnight after admission a slight discharge of pus took place from the inner wound and a few minute fragments of bone came away As this wound healed a similar slight discharge of pus occurred from the outer wound. No drainage tube was inserted. On transfer to the base on 9th December the femur had united, the inner wound had healed and only a small ulcer remained at the outer wound. There was, however, about 2 inches of shortening.

In addition to the 66 cases referred to above, a few other wounded men were sent to this hospital from other hospitals with the force Of these the only case worthy of remark was the following:

CASE V.—A transport driver was hit on 18th October on the right great trochanter, the bullet passing through from front to back He was a most restless patient, yet his wounds healed readily without the insertion of drainage tubes, and the bone healed under treatment by a long wooden side splint and a perineal bandage. On his transfer to the base on 9th December no shortening could be detected, which leads me to believe that the femur had not been completely broken across.

The successful result of the treatment of the majority of the wounds may be attributed to the following amongst other causes:—

These fights occurred at the beginning of the campaign, and, prior to the receipt of injury, the wounded men had not been debilitated by prolonged fatigue and exposure. The wounded were promptly treated on the field, and so contamination of the wounds was prevented. Owing to the excellent arrangement made on the line of communications, it was possible for these wounded men to remain in this field hospital in Shinawri, the nearest camp, until healing had advanced so far that they could be sent to the base with little risk of healing being retarded. The majority were received at the beginning of the cold weather, and were treated in a dry and healthy climate.

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TWO CASES OF DIABETES FOLLOWED BY COMPLETE CURE.*

BY PROFESSOR PIETRO LUPO, M.D.,
Professor of Surgery, Naples University of Medicine.

Two years ago a woman named PIPOLO came to me with an enormous honeycomb-like growth, extending right across her back from below the scapula to the first lumbar vertebra. Following my usual procedure of making several incisions, I scraped the bottom and walls of the growth to remove the necrosed fragments and after free lavage with sublimate solution filled the cavity with iodoform.

Suspecting diabetes as the cause of the slow progress of repair, I examined the urine and finding a large percentage of sugar immediately prescribed vigorous dietary, on the tenth day of which the sugar entirely disappeared from the urine and to-day PIPOLO is in perfect health.

In May last I was consulted by a man named PARDO for digestive disturbances of over a year's duration, malaise, fatigue, pain in the legs, bronchial catarrh, visual disturbances and frequent diuresis. He had grown as thin as a skeleton and as his urine contained large quantities of sugar he was placed on an exclusively meat diet In 20 days the sugar disappeared, but as the other symptoms were not ameliorated, he resumed a mixed diet, giving preference to meat with the consequence that the sugar reappeared, the other symptoms were highly aggravated, gangrene set in of the skin of both tibial regions and he was bed-ridden.

Being persuaded that uric acid diathesis, diabetes, oxaluria, &c are different phases of one single morbific entity, I gave PARDO no medicine whatever, but placed him on the special diet I had given PIPOLO of nothing but vegetables and fruits *of every sort*, wine was absolutely forbidden, as having a tendency to alkalinise the blood—with the result that the gangrene was arrested, and on the 18th day, PARDO was not only able to walk about unaided but also improved rapidly in nutrition, and sugar and albumen were completely absent from his urine After 60 days of the vegetable diet his urine showed 60 to 70 crystals of oxalate of lime for each field under the microscope, which might have prompted the fear that the patient had changed his diabetic condition for an oxaluric one—*i.e.* gone from bad to worse—but so convinced was I of the benefit to be derived from a vegetable diet, that I advised him to continue it and was pleased to note that the oxalate of lime also disappeared from his urine after a time

As the ætiology of diabetes is multiple, decisive inferences can scarcely be drawn from these two cases only; but we can safely conclude that many diabetics can be cured on the vegetable diet, and I now have under my care a case who shows 100 crystals of oxalate of lime for each field under the microscope and is rapidly improving in condition.

* Translated from the *Giornale Internazionale delle Scienze Mediche*. By Dr. Harley Smith and revised for the *Indian Medical Record*.

A CASE OF SNAKE-BITE TREATED WITH "MATHIESON SNAKE-BITE SPECIFIC."

By G. C. [illegible].

Kotri.

Natoo, a Hindu, *æt.* 35 years, was brought to hospital on 25th July 1897, at 7-30 A.M., said to have been bitten by a snake, about half an hour previously.

The patient, a pointsman, North-Western Railway, Kotri, stated that he put his hand into a basket to take out a pair of shoes, when he felt something sting him; he withdrew his hand and called out to his brother, who on searching the basket, found a snake which he destroyed. The patient is of fair constitution; appears to be in great agony.

Two distinct punctures could be seen on the dorsal surface of the third phalanx of ring finger of right hand; the hand is much swollen and very painful, complains of giddiness and nausea. Pulse small, 120; respiration, 36; Temperature normal.

The punctures were incised and a few drops of "Mathieson snake-bite specific" applied and continued every 3rd hour. Twenty drops of the same drug were given internally in half a wine glass of water, he was also made to inhale the drug from time to time.

At 12 noon, the pain and swelling increased considerably, site of an old fracture in left forearm became very painful and swollen. Blood exuded from the gums. Conjunctiva injected, singing in ears. Stools mixed with blood. Urine bloody. Temperature 101; pulse 130; respiration 40.

4 P. M. General pains all over the body. Blood oozing freely from mouth and nose.

10 P. M. About the same. The medicine to be taken every three hours during the night in 20 drop doses. The hand and forearm of right side as also left forearm to be fomented with neem leaves.

26th.—Had a fair amount of sleep during the night, forearm is much swollen and very painful, still complains of the giddiness and nausea, jaundiced, pulse 120; respiration, 36; temperature 101. Blood still pouring from lips, gums, and nose, eyes still injected.

Twenty drops of the drug were given every fourth hour. Castor oil one ounce at once. Poultice of neem leaves and fomentation continued.

4 P. M. Four bloody stools during the day; pulse 80; respiration 26.

27th.—Had a fairly good night. Temperature 99; pulse 80; respiration 26. Small quantities of blood from gums and nose. Stools and urine still continue bloody.

28th.—Is much better, jaundice very marked, bleeding from mouth and nose less, stools and urine still show traces of blood. Temperature 100.

29th.—Much better, was ordered some quinine and iron. Patient steadily improved and was discharged on the 8th August.

Mr. Mathieson is a retired Superintendent of the Sind Land Revenue Survey and now resides at Kotri, and will be glad to give any further information regarding his specific.

The snake was an Echis Carenita (Phoorsa).

THE

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1st August 1898.

THE ADVANCE OF MEDICINE IN INDIA AND THE INDIAN MEDICAL SERVICE.

Under the heading of "Bacteriological Laboratories and the Plague" the *Lancet* publishes the following apt and much needed remarks:—

"When the recent outbreak of plague occurred at Calcutta it was a matter of obvious importance that the exact nature of the disease should be determined with the least practicable delay. Happily for the Government of Bengal, the services of M. Haffkine were available and he was able to report, as the result of a bacteriological examination, that the outbreak was due to true bubonic plague. We have heard a great deal about the establishment of bacteriological institutes or laboratories in India; now here was an occasion in which a bacteriological laboratory in Bengal would have been of the greatest use, and we are glad to notice that the *Englishman* of Calcutta has called attention to the subject. It cannot be said that among the number of medical officers of the Indian Medical Service there are not several who are both competent and willing to undertake this special work, and the sooner a properly equipped institution is established the better. There is probably no place in the world where bacteriological researches are more required to be employed in the investigation of disease-causes than in India, not only in the interest of scientific medicine, but as a matter of State policy. A really good staff of men with the requisite scientific training should be specially selected for the purpose of conducting these inquiries, and as they will probably find ample work in carrying on their investigations, these duties should be confined to them."

We have so frequently called attention to the backward state of modern scientific medicine in India, that it is now almost impossible to touch upon the subject, without feelings of irritation and indignation.

We have sadly retrogressed, we are overgrown with the emblems of antiquity and the anomaly of our position is made every day more glaring by the rapid advances that other countries have made.

It is no longer the custom for other nations to seek in British medical literature for information regarding the diseases of hot climates. We are now obliged to turn for the latest development, to the medical writings of Germany, France, America and Italy. Ichabod! Ichabod! our glory has departed, we have been out-distanced and are being rapidly left behind by nations which were much later in the field.

This is a scandalous state of affairs and it is not too much to say that it is a disgrace to the national honour of England, whose proud boast it is to lead the van of modern civilisation.

It was confidently expected that the terrible visitation of the plague and its awful ravages, would, even at the eleventh hour, have awakened the Govern-

sheet of India to its shortcomings, and to the full appreciation of its responsibilities, and that in this way, out of much suffering and trouble, good would eventually have resulted.

It is late in the day now, these hopes have been unfulfilled, and it is with a sickening sense of disgust that we regard the future wherein we can see no trace of a re-awakening and no sign of any departure from the old lethargy we have grown accustomed to.

When some years ago the late Dr. ERNEST HART, the able and accomplished Editor of the *Journal* of the British Medical Association, spoke of this subject in Calcutta, there were many officers in the Indian Medical Service who resented his mild sarcasms; the unpleasant truths he uttered struck home, the dearth of good work in India was too notorious to be denied.

His words, however, might as well never have been uttered for all the good they did. We still proceed in the same listless fashion. If Dr HART chastised with whips, it has been forgotten, and others must come to scourge with scorpions before our lethargy can be dispelled, and a better state of things inaugurated.

In seeking for the causes which may be put forward to account for our sluggish state of stagnation, our want of all initiative, our inactivity and failure to keep abreast of the times, we recall the sad lesson from past history, that the British Government has never done anything for the advance of Medicine spontaneously. All our laws on the subject, and all our reforms, have been wrung from it by coercion. With every movement in these directions the name of some well-known man who has with energy and perseverance driven the bolt home can be associated. Foremost amongst these reformers stands WAKELEY, whose noble life has recently been epitomised in these columns

There is unfortunately no powerful and independent public opinion in India, to drive our rulers to take steps which are apparently so repugnant to them. Above all no influential medical opinion.

What might not the Indian Medical Service have done with all its grand traditions? It is its opprobrium that it has done nothing. It is a service without coherence, without union, without influence, a combination of varied and isolated interests, where each man fights his own battle, too frequently a merely pecuniary one.

What a contrast is presented by the magnificent combination of the sister service, the Army Medical Staff, which has overcome the stubborn opposition of the War Office and wrung from it such magnificent reforms, not only to its own glory, but for the advantage of the profession at large.

It is the custom of the Indian Service to scoff at these agitations and then to willingly share in the profits, while for the very titles it bears, it is indebted to the sister service

They will only have themselves to thank, if on the present occasion they are left out in the cold, as appears likely to be the case, and if the victory is barren of remnants for the jackal.

It is time the Indian Medical Service woke up to a full sense of its responsibilities, and learnt that the custom of turning the other cheek to the smiter, is not the way to general advancement in this world.

It is time it learned to manage its own affairs, it has been swaddling clothes long enough. What is there in the nature of its services that it should be under the thumb of the Civil Service? Why must the advancement of its members be subject to the good will of some Secretary to some Government or other?

A sad picture of the pitiable state of servility to which this fine service is reduced, is set forth in the story of the appointment of a senior officer to a much sought after station. He got the appointment because he understood the particular ailments of the Chief Secretary's family, and the Chief Secretary wanted a doctor upon whom he could depend, and who was supposed to understand children!

When a book on plague is published in India it is published by a member of the Civil Service, and another member of the same service teaches us in the Bengal Legislative Council what we do *not* know already about plague, the "Risley-plague" we mean.

It is only too plain that the Indian Medical Service can never have any influence in the country until it becomes jealous of its own rights, and until it takes the Government of its own body into its own hands. In matters of public reform in the Medical profession the Office of the Director-General of the Indian Medical Service is compelled to admit that it is absolutely powerless for good.

As we are sorrowfully forced to the conclusion that there is no prospect of its doing this, we must look to other combinations and associations for the future rehabilitation of Indian Medicine.

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THE PRESENT POSITION OF THE THERAPIE OF TRAUMATIC TETANUS.*

III.

LET us consider the foregoing case. We see that the wound was of such a description as to dispose to tetanus, and that nine days after it was received the first appearance of spasm was observed; it did not come on in the usual manner with trismus, but with a local spasm in the wounded limb.

Trismus first appeared on the 13th day. As the other tetanic symptoms did not develop very rapidly, this case falls into the category of the middling severe.

It is difficult to say, what effect the first serum injection had upon the further course of the disease, but as the temporary improvement during the first day was succeeded by a severe aggravation, we may infer that already a large dose of the poison had been absorbed into the system, by which the prognosis was rendered far from favorable.

The local treatment consisted in the thorough cleaning and disinfection of the wound, especially the wound of the elbow, the others were trifling. In employing in this disinfection our usual corrosive sublimate solution one in ten thousand, I was guilty of a sin of omission according to SAHLI, who considers the addition of hydrochloric acid, or tartaric acid necessary, or that some other disinfectant should be used.

Probably it would have been better if the wound in the elbow, which must be regarded as the local seat of infection, had been laid open and thoroughly destroyed, had this been done the disease might have been less protracted.

It is very likely that there was some injured tissue, or at any rate effusion of blood in the deeper part of the wound,

* By Von. Dr. A. Haddenus Heidelberg. Translated from Munchener Medicinische Wochenschrift.

the latter was proved to exist by the injection made later on, but it is impossible to say that it was the seat of the injection for the cultivation made from it did not give positive results.

Later on, I ascertained by means of Rontgen-Rays that there was a comminuted fracture of the epicondyle int. hum. It is not improbable that the specific virus found in this condition a favorable breeding ground, probably the early appearance and the long continued stiffness of the arm may find its explanation in a severe local infection of this nature.

Whether the injective material was opened up, and evacuated by the incision, it is difficult to say.

What particular action had the serum? Immediately following the first injection there was no result, the first decided improvement occurred on the following morning. The evening was however, marked by an aggravation and this occurred regularly during the subsequent course of the sickness; this regular alternation we have not noticed in the cases that have hitherto been recorded.

In spite of the injection there was a continuation of the tetanic process and gradually other groups of muscles became involved. In order to combat these, narcotics were called in, and apparently with good effect, the patient as a rule got some rest after chloral and opium

Then suddenly there was a rapid and increasing aggravation, such as might follow a second, acuter, injection.

The re-action which followed upon the second injection cannot surely be attributed to accident, the contrast is too strong for that, and in the whole of the literature of the subject there is no case where tetanus has undergone such a sudden transformation under any other treatment.

Especially remarkable was the sudden lessening of the frequency of the paroxysms to every half hour, the diminution of the trismus after a few hours, and the spontaneous opening of the mouth to 1 5 cm. on the following morning, while up to then it had been firmly closed.

The spasm of the tense and hard muscles of the body also disappeared more rapidly than occurs under other methods of treatment

The further progress to recovery then again became more gradual, and was always of the same type, marked by slight morning remissions and evening exacerbations, the stiffness in the wounded arm persisted a particularly long time. When the patient presented himself again at Christmas it had not entirely disappeared and was specially marked in the deltoid muscle.

We consider that we are justified in pointing to the foregoing case as an illustration of the favorable effects of the tetanus antitoxin, it is clear however, that we cannot rely upon it alone, without the assistance of the other remedies mentioned. We hope, however, that those, who like Rose, are sceptical of the antitoxic serum treatment will acknowledge its favorable action in this case.

While this patient lay seriously ill, in conformity with the law by which cases run in pairs, a second case came under our treatment of the variety known as head tetanus, on account of the participation of the nerves of the head. Paul Bariani, 45 years old, a cement worker from Lemian, met with an accident on the 8th November 1897, at the stone quarry near Leiman, while he had loaded and was firing two blasting charges.

One shot fell, the other hung fire, when he went close, and was in the very act of removing the fuse, it suddenly lit up and the blast exploded in his face.

The surgeon who was called in put on a dressing and sent the case as quickly as possible to the clinic.

Present condition.—A very strongly built man, with the whole of his face disfigured with wounds in which are embedded particles of stone and gunpowder, the left side of the face is the most injured. The left eyeball is totally destroyed, there is a wound in the cornea out of which protrudes the iris, the ciliary body and the lens. Beneath the left side of the lower jaw there is a large and gaping lacerated wound of the skin, at the bottom of which, the lower edge of the jaw bone is exposed to the extent of 5 cm., there is no fracture.

The bottom of the wound is much bruised and it is surrounded with discolored ragged tissue. There is a second smaller and shallower ragged wound on the left side of the neck.

The nose is split down the middle and the septum smashed.

The whole face and especially the right cheek and eyelid is much bruised and sprinkled with particles of stone, the underlip is much swollen and has several wounds, on the left upper arm and breast there are superficial abrasions.

Clinical diagnosis—Multiple bruises and wounds of the face, &c, with foreign bodies impacted. After cleaning the wounds and the face as well as possible a wet dressing was applied

9th November.—On the advice of the eye specialist who was consulted, the patient was anæsthetised and after the removal of the conjunctiva the sclerotic was cut round and the whole contents of the collapsed eyeball removed with a sharp spoon So that only the bare sclerotic remained as a back ground.

13th November—Up to this date the case progressed favorably, the wounds commenced healing and the swelling about the right eye went down so that the patient could again open it, this morning, however, 4½ days after the accident trismus appeared, he could only drink with difficulty and by holding apart the teeth with a spoon. The finger introduced into the buccal cavity felt the masseter hard and tense. On being questioned the patient said that he first noticed the spasm about 12 o'clock the previous night. It has, however, become so marked already that the breathing is difficult and the muscles of the face appear to be affected The patient holds the spoon firmly as a wedge in order to keep the lips and teeth sufficiently open, since the nose is stopped up in consequence of the wound, and of the scabs that have formed.

No stiffness of the neck or of other groups of muscles. Temperature 98·0F. At 10 A.M. 5 ccm. of Behring's serum as mentioned above dissolved in 30 cc.m. of water was injected into the left median vein.

During the course of the day the trismus was apparently unaltered, the patient as before can only get his breath, by himself holding the spoon jammed between the teeth so as to hold the lips and teeth open. Up to this evening no increase of the tetanic spasm was observed.

14th November.—The wounds secrete pus freely, cultivation of which with agar was negative.

... a decided increase in the difficulty of breathing, and in the trismus, at the time of the morning visit he could of his own accord open his mouth to the extent of 1 mm., nevertheless he has still to keep the lips separated with the spoon; in order to make breathing through the nose easier, a sufficiently large drainage tube about 3 to 4 cm. long was introduced into each of the shattered and swollen nostrils. The masseters can still be felt from the mouth in firm contraction.

The patient complains of great dryness in the throat, which to a certain extent is relieved by means of plenty of fluids administered at intervals by means of a cup with rubber tube attached, the temperature in the afternoon reached 102·3°F.

15th November.—Slight pains in the neck, turning movements perfectly free, flexion limited, the muscles of the neck feel harder than before, trismus which had improved is also worse.

16th November.—When he was being dressed it was noticed that the right angle of the mouth hung down powerless and it was discovered that there was complete right sided facial paralysis, pressure over the point of exit of the facial nerve caused pain and increased the trismus, the spasmodic contractions of this side of the face are not relieved, the left facial nerve is unaffected.

Towards midday the difficulty of breathing became aggravated and there were passing spasms of respiration. The flexor muscles of the head are strongly contracted on both sides, the head is fixed in a flexed position and the other muscles of the neck and throat are in a condition of tetanic spasm. The paroxysm only lasts a short time, still after it has passed the muscles mentioned can be felt like tense cords. On account of the danger of suffocation, preparations were made for tracheotomy, and in the evening an enema of chloral and 20 drops of opium were given.

17th November.—This morning he feels well, the trismus is less and the difficulty of breathing and swallowing not so great.

As the wounds are still in some places covered with a thick coating the result of a previous dusting with airol, a thorough cleaning of them from all extraneous matter was undertaken to-day. This showed that beneath their coating a quantity of pus was concealed.

All the wounds were, as far as could be conveniently done, enlarged with a probe pointed knife, and thoroughly cleaned with a 1 per 1,000 solution of corrosive sublimate. This procedure apparently exhausted the patient very much, so that after it, there was a return of very severe trismus and difficulty in swallowing, chloral was repeated in the evening.

18th November.—Condition easier. In the course of the afternoon there was an important aggravation of the spasms of the muscles of deglutition and of respiration. At every attempt to swallow spasms came on and threatening suffocation. The temperature reached 103·7F. In the evening swallowing was altogether impossible and the patient complained of hunger. Nutritive enemata were given. A small stone was removed from the wound in the cheek.

The threatening condition appears to be an indication for an other injection of antitoxin. On this ... four different places in the ... manner adopted by ENGELMANN ...

19th November.—Had a ... visit the trismus was appreciably less, and the patient is again able to swallow without ... jectively he finds himself better. Nutritive ... still continued. Exanthem of neck and throat at the points of injection!

The wounds are healthy granulating well in places, Facial paralysis unaltered, less secretion from the wounds of the neck and lips.

20th November.—Difficulty in swallowing almost entirely gone, trismus so slight that the patient of his own accord can open his mouth 1 cm. wide, breathing quite free, the necessary nourishment is swallowed. Nutritive enemata stopped. Temperature normal.

22nd November.—Continued improvement in the trismus. Now and then when swallowing a sudden increase of trismus and of spasm of the muscles of deglution comes on.

23rd November.—These spasms occur to-day regularly and quite suddenly while swallowing, immediately after a small quantity is swallowed, further swallowing then becomes impossible and the breathing is so obstructed that slight cyanosis appears. Nutritive enemata have again to be employed.

24th November.—To relieve constipation aperients were given, after which copious stools came away. Swallowing still difficult. Now and then the patient has an attack of coughing, and the expectoration is very difficult on account of the spasms of the muscles of deglutition.

25th November.—Difficulty in swallowing less. Expectoration still subject to spasms. Continued improvement, trismus becomes less daily.

2nd December.—Patient can now swallow without difficulty and is able to take solid food. Facial paralysis still unchanged.

8th December.—To-day he can again draw up the angle of the mouth and can close his eye better.

15th December.—No pain now in the neighbourhood of the facial nerve, but on the other hand when the sensibility was tested it was found that there was no sensation in the skin of the cheek.

20th December.—Trismus still perceptible, the wounds of the face are healed except the large granulating place over the left side of the lower jaw.

22nd December.—The point of the nose which was split was to-day stitched up, after the edges were refreshed, under cocaine anæsthesia.

The further progress was uneventful. In the beginning of January a false eye was introduced, which to a certain extent follows the movements of the other eye.

Finally the wound of the under jaw healed by granulation without any exfoliation of the bone that was exposed. He was discharged on the 24th January 1896.

We must class the foregoing case of head tetanus amongst the most severe. Already four days after the injury trismus appeared, how far the muscles of the face participated in it at the beginning it is not safe to say, for the wound at the face was an horrible and disfiguring that a sufficiently careful investigation

[illegible] of the [illegible] that in the [illegible], could only be opened [illegible]; the swelling of the lips however makes it difficult to be certain on this point. The facial paralysis which appeared after a few days is according to Brunner a direct proof of the intensity of the infection and intoxication. The fact is that paralysis of the muscles of expression is always the result of a very severe local poisoning. According to the experimental researches of Brunner an isolated facial paralysis never results from a blood injection, but only from a concentrated local action.

Much depends upon the affection of the facial nerve concurrently with spasm of the motor Trigeminus. Trismus, etc., which was the primary lesion; facial paralysis or trismus? this cannot be decided with certainty. Whether in this case there was also paralysis of the muscles of the eye, which is prone to follow wounds in the neighbourhood of the eye, like the wound of the upper lid of the right eye which existed here, is difficult to decide, since the severity of the injury and the multiple wounds of the face rendered such an investigation difficult, and on account of the loss of the left eye a comparison with it was impossible. We think we are safe in pointing to the deep wound in the middle of the right cheek as the place from which the infection spread.

From this wound a small stone was expelled after several days, and I regret that this foreign body was not made use of for an inoculation experiment as cases are known in the literature of splinters of wood having been employed in this way, perhaps it would have led to safer conclusions. That the wound of the nose was not the seat of infection follows from Brunner's observations, for he shows that a wound in the median line leads to a double sided paralysis.

Such a severe infection with paralysis is according to Brunner only observed in the region of the nerves of the head and especially of the facial nerve. Moreover the facial appears to be an easily affected nerve, for in other injuries of a less severe kind it is connected with paralytic changes.

Further the rapid onset of the spasm of the muscles of deglutition and of the glottis is characteristic of head tetanus and of the severity of the case. In this case they were connected with reflex excitability of a high degree, so that when a drink was taken the effect of a few drops was sufficient to bring on spasm of the muscles of deglutation and to render further swallowing impossible. It was therefore necessary to support the patient's strength with nutritive enemata.

Now what effect had the injection of tetanus anti toxin in the second case. We have seen that it was injected not quite 12 hours after the onset of the symptoms, in the median vein; the condition was at first unchanged, considering the severity of the case this in itself must be looked upon as a favourable result, but its favourable effect appeared certain on the following morning when the trismus began to disappear, and the patient could again open his mouth to the distance of 1 mm. The difficulty in breathing also diminished, but no further effect was noticed.

[illegible] of importance [illegible] however important; and especially the lessening of [illegible] which has been observed by others to follow as a consequence of serum injection. As trismus is the first alarming symptom to appear, so also does it appear to be the first to be affected by the treatment.

But although the improvement in the trismus was maintained, on the next day a further development of the disease took place, the neck felt stiff though on movement there was no spasm. The next day there was contraction of the flexor muscles of the head, difficulty of breathing with passing spasm of the glottis. Narcotics gave relief.

On the next day mechanical irritation produced an aggravation in which the trismus participated, this increased on the following day to an alarming degree accompanied by severe spasms of the muscles of deglution and of the glottis. Accordingly antitoxin was again injected, this time into the affected muscles.

The consequence was again, a marked improvement in the trismus, and in the act of deglutition, the reflex excitability was undoubtedly diminished.

From this time there was continued improvement, interrupted now and again by spasms of the muscles of deglution. Finally the facial paralysis disappeared, it was not affected in any way by the injection.

Considering the objective signs, I think it is impossible to deny that in this case also the serum treatment had an undoubted good effect. The severity of the disease and the very unfavorable prognosis are almost a direct proof that it was the early injection of antitoxin which preserved the patient's life.

Following these two cases there came a third on the 4th February 1898, curiously enough from the same place as the first and sent in by the same physician.

Karl B, 28 years old an agriculturist of Waibstadt received on the 29th January 1898, a small wound on the lower lip from the thong of a whip, which he was cracking. The lip swelled up and the physician washed the swelling the next day with corrosive sublimate, on account of its trifling nature, he did not apply a bandage. The next day the swelling went down and the wound apparently healed, when suddenly on the 3rd February, after five days, when eating his mid-day meal he found a difficulty in chewing. He could not open his mouth as freely as before and by the evening he was unable to separate his teeth. Two days before his father had remarked that his right eye appeared smaller than the left. The physician who was treating him immediately sent him to the clinic.

Present condition.—4th February. A somewhat pale but well nourished man, internal organs sound, urine normal. On the lower lip 1cm below the right angle of the mouth there is a scab of the size of a millet seed. The surrounding tissue is much swollen the tissues appear infiltrated and there is some pain on pressure, no redness, no fluctuation. On the right side there is slight ptosis of the upper lid, obliteration of the naso-labial furrow, on the other hand the wrinkles of the right side of the forehead are accentuated. The

eye can be completely closed, and offers hardly less resistance to passive opening than the left.

Movements of the eye muscles unaffected. The Masseters feels stiff and from the inside of the mouth the anterior edge can by distinguished as a hard ridge, the right is more marked there the left. The cheeks on the whole are slack.

The teeth are firmly clenched the upper ones overriding the lower, with the strongest effort they cannot be separated. The tongue can be freely moved in the mouth, no difficulty of breathing or of swallowing. Fluid nourishment can be taken without much difficulty as it is sucked in between the teeth.

In the neck there is a perceptible hardness of the clavicular portion of the right sterno cleido mastoid, and the insertion into the mastoid process is also thickened and hard No other groups of muscles are affected, there is no spasm of the neck and the head can be moved freely.

Diagnosis. Head tetanus, with partial facial paralysis following wound of the lower lip.

After the patient was bathed and put to bed. Under chloroform, an eliptical incision was made round the wound and the enclosed tissue down to the submucosa of the lip removed ; the wound was then thoroughly disinfected with a 5 per cent. solution of carbolic acid, and swabbed with damp Orthokresol gauze (1 p.c.) ; at both ends silk worm stitches were introduced, and plaster put on. The anæsthetic gave no trouble and under it there was no diminution of the contraction of the frontal muscles, or of the trismus.

The excised portion of skin on section through the centre shows what appears to be the prolongation of a hair-bulb or of a sweat gland, a fibrinous wedge shaped plug which extends into the sub-connective tissue and there spreads out. This portion is not closed at the bottom and it appears as if the whole of the affected tissue has not been removed. The excised portion was divided into four parts which were placed under the skin of the back of two rabbits, one guinea pig and one mouse respectively.

During the night the patient complained of difficulty of breathing, spasms not marked.

5th February.—At morning visit it was observed that the wrinkles on the right side of the face were very strongly marked, on this account the whole face presents the appearance of risus Sardonicus. If the patient tries to drink he cannot suck in the fluid on account of spasm of the lips, and the effort brings on reflex spasm of the glottis with cyanosis of the face.

The movements of the head are no longer free, bending forward is specially limited, there is obvious spasm of he neck muscles, the flexors of the head are very tense and hard ; now and then there is slight opisthotonos. It is difficult to raise him up.

The patient is for the future to have nutritive enemata (three times a day, two eggs, beef-tea, wine water) also an enema of chloral.

The wound was dressed and the stitches removed, for the thorough disinfection of the wound it was carefully cleaned out with tincture of Iodine (Barta) and dressed with damp Orthokresol gauze.

At evening visit, frequently recurring spasms were observed for the first time, coming on every few seconds. On being questioned the patient said he had first noticed them about half an hour before, that is about half past four o'clock. They are not accompanied by pain. The breathing is not embarassed, and he says the tongue can be moved fairly well in the mouth. The trismus is however, so pronounced that his speech is no longer intelligible. The extremities are unaffected, likewise the pectorals. On the other hand the muscles of the abdomen are tense.

The spasms referred to chiefly show themselves in opisthotonos with the head drawn back and boring into the pillow, accompanied by strong contraction and distortion of the muscles of the face. Spasm of the neck is very pronounced. The right upper eyelid can no longer be as completely closed as the left one. There is constant profuse perspiration of the face and especially of the forehead.

The antitoxin that was telegraphed for arrived in the evening, this time in solution, a single dose of two small flasks (each 25 cc m —500 J,—E) this was immediately at 8 P M. injected into the left median vein. Morphia was also injected somewhat later.

Immediately after the injection there was no reaction, in the following hours the temperature rose and at midnight reached 103·6F. The rapidity of the pulse was much increased, 155 to the minute, but strong and regular. During the night the number of the spasms was unchanged, they are very frequent from 3-4 every five minutes, it often happens that a very severe one succeeds a mild one.

The patient on the whole presents a very grave appearance. The mouth is dry, and a dry secretion collects upon the teeth, the face is covered by profuse perspiration, a colossal perspiration burst forth from the whole body.

The phlegm which collects in the mouth can only be expectorated with great difficulty between the teeth. Any attempt to drink brings on at once repeated swallowing movements, then spasm of the muscles of deglutition and of the glottis sets in and makes further drinking impossible.

He can no longer suck as he has lost control over the movements of the lips ; when drinking he lets the water run into the left bucal cavity, then directs it into the gullet by throwing his head backwards.

In the course of the night the temperature fell again to 99.5°F

(*To be concluded.*)

PLAGUE IN CALCUTTA. THE WRONG CHILD?

While people in Calcutta, like a man recovering consciousness after some violent catastrophe, are beginning to look about them in a half bewildered way, and to ask themselves in a spirit of incredulous surprise what has become of the wonderful plague which was burst upon them like a bomb some three months ago, we would like very much to know how the official sponsors view the behaviour of the strange bantling, on which they were so eager to confer the redoubtable cognomen of Plague and exhibit in the face of the whole world.

Its behaviour has been so eccentric, and so utterly unlike what was confidently expected and prophesied by its god-parents, that many are raising the question in all seriousness, if it is not possible that the christening ceremony was undertaken for the wrong child.

When the new arrival was first announced, a perfect reign of terror seized the unhappy city in its implacable grip: no evil portent could have wrought greater havoc. Labour ceased, trade stood still, the streets were encumbered with refuse, which there were none to remove, while the people in a state of the wildest panic, rushed blindly forth in hundreds of thousands, flying from a plague stricken city, to seek safety at the furthest point they could reach.

The imagination of an excitable populace was raised to the highest pitch, one scare followed another, and behind every whisper seemed to lurk the most dire plots, and the awful shadow of death.

Bombay sent us kindly messages of condolence and warning beneath the thin veil of which we could read a sort of placid satisfaction that the enemy it had so long and vainly fought against, was about to bestow its unwelcome attentions elsewhere. Verily there is something in the misfortunes of our dearest friends which nature has enabled as to bear with ease and equanimity.

All this dark shadow has now passed away, the terror stricken have returned, the streets are once more crowded, and the noise and bustle of busy trade have once more resumed their wonted course. The plague was kind enough to regard the Sabbath as consecrated and so for five consecutive Sundays no plague cases were reported.

How has this miracle been wrought, how has this wonderful transformation been brought about! Has the government repealed its decision, and has the stigima of being plague stricken been removed? No, this has not been done; on this point the same doubt and uncertainty exists as before; but the people have courage, they have surveyed the situation for themselves and the quiet condition of Calcutta at present is due to the conclusions they have formed.

When it was noticed, after the first announcement of plague that the disease was not spreading very rapidly, we were told that this was always the case, that at first it was always sporadic, that it was incubating, and quietly gathering strength for the final spring which was to destroy us.

When this deadly spring was still further delayed, we were told that the weather was unpropitious, the weather conditions which were favourable or the reverse to the development of plague, were confidently discussed and laid down from the short experiences of Hongkong and Bombay, and we were warned to wait till the rains broke, then the excessive moisture and diminished sunshine would wake the epidemic into life.

The prophetic day has however come and gone, and yet we are still in the same state as before, if anything now that the monsoon is in full flood and the soil of the city is water logged, we have had no "plague" cases during the past past five days. The evil predictions have once more been unfulfilled. So we are now told to wait for an awful outburst the next cold weather.

This we are quite prepared to do, in the confident expectation that this evil prediction will prove as false and groundless as it predecessors.

In the meantime the Government stoutly, and as it appears to many, obstinately adheres to it first pronouncement; according to its declaration the City of Calcutta is infected with true Plague.

In view of the immense importance of this matter to all the best interests of the City, it is difficult to believe, nay more, it is altogether incredible that further researches on the subject have not been made; we should like to think that a continuous series of bacteriological investigations have from the beginning been undertaken, and are still being carried out; it would reassure many to know that this very essential action was being taken, but we have no information on the subject.

Is it possible that no further reliable bacteriological investigation into the so-called cases of plague in Calcutta has been undertaken since the disease was pronounced to be true epidemic plague on the 30th April last, on the strength of Mons. HAFFKINE'S statement that he had found the plague bacillus in some specimens which were submitted to him anterior to that date?

If such investigations have been carried out we are in ignorance of the fact, for nothing of the kind has been published; if they have NOT been carried out there is grave cause for censure in some quarters, such a dereliction, such a confessed failure to understand the overwhelming importance of the case, thrusts it as a paramount duty upon the Corporation of Calcutta to take up the strongest position and press the matter to the utmost; and this duty it owes to every citizen in this immense capital.

The government has been asked to provide an expert bacteriologist, it either cannot or will not; such an *impasse* cannot be supported much longer. It is high time that the Corporation should take action in the matter and provide one for itself.

The distribution of the so-called plague cases in Calcutta is worthy of close attention; that the disease should be limited at its onset to one quarter and that every endeavour should be made to prevent its spreading beyond these limits, is what many people would naturally expect from a malady of the nature of plague, which is above all things supposed to be an imported disease.

Far from this being the case, it appears to be everywhere, the evenness of its spread North, South, East and West, is little short of amazing. So much so that if one or two wards be excepted, it is difficult to say that one portion of the city is affected more than another, and in not a single ward has the disease assumed an epidemic form.

These facts argue strongly against an imported disease. They are on the other hand very strong evidence in favour of the disease being of an endemic nature, perhaps accentuated in severity by some conditions which do not always prevail, or by cyclical causes.

This position we have taken up from the beginning and we are very far from seeing any cause to alter it now.

It is a curious phenomena, we can call it nothing else, that there are to be found persons ready to attribute the non-spread of the plague to the energetic measures that have been adopted for its restraint, and to the vigorous way in which it has been tackled; we cannot see any grounds for such an assumption. Had it been demonstrated that the disease was imported into one definite locality, had it become epidemic there and spread rapidly, and finally had it been hemmed in and prevented from extending itself to neighbouring places, there might be some reason in such a contention, but it is a fact that these conditions have not been fulfilled in a single particular.

There is no definite evidence of importation, instead of their being one focus, there are hundreds of foci of disease and new ones are constantly appearing. While in not a single focus has the disease taken on a really epidemic action.

Are we to believe that the Calcutta measures are so much more successful than those of Bombay, or that the Calcutta disinfectants are so much more effective, that each of their foci is effectually dealt with and destroyed instanter? He who has faith to believe that this is the case, should not want for much in the world, for of a truth he could move mountains!

But even were such the case, how are we to account for the continual uprising of other foci of infection?

The endemic theory appears to be the only theory capable of throwing any light on the subject.

We have read that Mr. DYSON the Sanitary Commissioner, has said that it is all "bunkum" to deny that the cases, occurring in Calcutta are true plague, but in this new fangled style of official language, we do not impose much confidence; for in the first place we do not know that the Sanitary Commissioner is to be looked upon as an oracle, and in the second we believe that had he anything of weight or importance to say on the subject, he would have refrained from talking about "bunkum."

Plague or no plague, and putting all theories aside, there is one consoling reflection in which we in Calcutta can safely and complacently indulge. That is the unprecedented healthiness of the city, we are so accustomed to read day after day that our present death rate is below the average for five years, that a decrease of even twelve, per 1,000 does not astonish us. It is somewhat of an anomaly that a visitation of "true epidemic plague" should diminish the death rate, but we are reconciled to it, and we think that in this respect Calcutta may be proud of having made a record.

In spite of our evil sanitary condition, which has of late been if possible worse than before, the plague does not spread; and we view the gradual dwindling of other diseases, almost to the vanishing point, with satisfaction. There is no reason to be alarmed about our health, it continues good, so good in fact that there is absolutely nothing in Calcutta to attract the attention of foreign plague commissions, still we wish that some of these gentlemen would visit us, and tell us a little more about ourselves than we can learn from a parental government or its medical protégés.

COMMENTS AND NEWS.

SIR RICHARD THORNE THORNE ON ENTERIC FEVER.

In the Annual Report of the Medical officer of the Local Government Board for 1896-97, Sir RICHARD THORNE THORNE says with reference to Dr. BULSTRODE's report on Chichester.

"It goes to show that enteric fever, though mainly distributed in epidemic form by means of water or milk, is by no means always a 'water-borne' disease; and it raises anew the question as to how far recurring prevalences of enteric fever in one town or spot, can be due to the persistence in more or less active form, in certain soils of the organism of that disease. This question has, for some time past, been deemed in the Medical Department to be one deserving of more careful study than had hitherto been bestowed upon it. . . ." Dr SIDNEY MARTIN was therefore instructed to make experiments on the behaviour of the typhoid bacillus in different soils, and his report is appended. He further says .—

"Dr. MARTIN'S testing of the question submitted to him has not yet advanced beyond a preliminary stage, but already he has ascertained that the behaviour of this microbe is very different, when, in the absence of competing micro-organisms, it is implanted in organically polluted soil, and in soil from an altogether uninhabited and uncultivated area. In soil of the former sort, as, for instance, in samples of each from Chichester, the typhoid bacillus speedily increased and spread abroad, whereas in the virgin soil under like conditions of temperature and moisture, it languished and quickly died out. Dr. MARTIN'S researches in this connexion are still proceeding."

"In 'milk epidemics,' whether of enteric fever, scarlatina, or diphtheria, indication has now and again been forthcoming that infection of the disease current in a particular outbreak has, subsequent to gaining access to milk, multiplied therein before and after delivery of such milk to customers of the implicated dairy Nothing is however, with certainty known of the conditions which favour, or which are antagonistic to, multiplication in milk of one and another infection, though it has been surmised that certain of the numerous bacteria apt to be present normally in milk may have an important influence on the life processes of disease microbes that happen to obtain access to that fluid. With a view, therefore, to procuring knowledge on this subject, Dr, CAUTLEY was instructed to ascertain which of the bacteria ordinarily to be found, or abnormally present, in milk, tend to render that medium a multiplying ground for the typhoid bacillus. Dr. CAUTLEY has not been so fortunate as to obtain, among the numerous samples of every-day milk with which he experimented during several successive months, any one sample in which the typhoid bacillus conspicuously multiplied; so that thus far his primary object was not attained. Nevertheless he has ascertained that this bacillus can persist, though diminishing rapidly in number, many days in milk under the conditions in which it is delivered to and retained in households, and that it can be recovered in viable condition even though 'the kept' milk has turned sour. Incidentally he found that the micro-organisms commonly present in milk, though always extremely numerous, varied in abundance with the season of the year; and that in winter, when they were least abundant, the typhoid bacillus, after addition to milk, survived longest. Acting on this suggestion, he ascertained that in sterile milk, in the absence, that is, of a plurality of different competing micro-organisms, the

typhoid bacillus not only persisted, but even multiplied considerably. In sterile milk, in association with only a single competitor—as, for instance, bacillus lactis, oïdium lactis, or yeast—the typhoid bacillus was little hindered in its life processes. But none of these micro-organisms was found to actually facilitate its multiplication in that medium."

In another part of his report Sir RICHARD asks—

"What are the local conditions by reason of which certain areas, whether registration counties, towns or villages, have, for at least a generation, become identified with such persistence or periodic recrudescence of enteric fever, as has continued to secure for them death-rates from that disease in excess of other districts, with some at least of which they may not unfairly be compared? Already there are indications which serve to show that whilst much of the diminution in enteric fever has gone hand-in-hand with the abandonment of water services, which being subject to receive specific pollution, served for wide diffusions and sudden outbursts of enteric fever,—much of the persistent prevalence of that disease is associated with those systems for the disposal of excreta and refuse which still find favour in certain parts of this country, and which inevitably involve organic pollution of the soil. But the subject calls for much more study, both in its practical and scientific aspects, and this the more so since diminution, for the country as a whole in the death-rate of this typically preventable disease would seem to be coming to a standstill."

SIDE LIGHTS ON THE MAIDSTONE TYPHOID EPIDEMIC.

MR. R HARRIS REEVES, C E, has published an interesting paper entitled "Report on the Maidstone Typhoid Epidemic from the Sewer Gas Point of View" in the *Public Health Engineer*. This paper is of interest both on account of the facts it brings forward and because it throws a side light upon the way in which Epidemic disease is investigated in England We have already shown that there is a considerable conflict of opinion between the authorities who devoted their attention particularly to the water supply (*Indian Medical Record*, 1st May 1898) Mr REEVES views the outbreak from a different stand point

"It appears," he says "from the reports of the proceedings at the late inquiry at Maidstone into the cause of the epidemic of typhoid, that no evidence was produced showing the true sanitary condition of the town sewers in spite of what has been already written, and the opinions expressed by experts and others The facts are these —A town of 32,000 inhabitants, unquestionably healthy, its death-rate low, with typhoid fever, although never quite absent, yet never previously epidemic, is in the space of three months devastated by a preventable disease affecting 1,908 persons, from which 132 deaths occurred, causing a loss to the town estimated at a 2½*d.* rate for a period of 20 years Shortly after the outbreak the Medical Officer fixed on the water supply as being the cause; the water company were blamed right and left by the inhabitants, and at this point all scientific investigation appears to have ceased. On 29th September, the suspected water was cut off, and from that date, although the epidemic continued, no further steps were taken to discover infection from other sources. The prevalent opinion was expressed in a decided manner by Dr. ADAMS in his cross-examination, when asked whether, assuming the water to be all right, the state of the drains would not be sufficient to account for the outbreak of fever, and he replied "Certainly not."

But, previous to the outbreak of the epidemic of typhoid, diarrhœa was prevalent, and to say that diarrhœa accompanied by typhoid fever is not a result of sewer gas poisoning is contrary to previous known facts and experience. Cases have occurred in buildings where the sewers were supposed to be perfect from a sanitary point of view; yet on investigation it was found that the outbreak was entirely due to sewer gas. He then describes an outbreak which he helped to investigate where 60 cases of diarrhœa and 6 cases of Typhoid were notified. "The fact of sewer gas," he says, "being the cause of this typhoid epidemic was then not even questioned, the evidence being considered conclusive," He continues —It is a very open question whether there were not in the sewers of Maidstone, previous to the 29th September, gases which would produce typhoid in the same manner. To prove whether or not such was the case no examination appears to have been made, nor was an analysis of the sewage or the gases in the sewer made. Therefore, the question to be considered is, were there not in the sewers of Maidstone, previous to the 29th September, gases which would produce typhoid in the same manner as in the instance cited? We can only inquire into what would naturally take place in sewers under similar atmospheric conditions as those of last year. Unusual atmospheric and meteorological conditions are required to store up and disperse gases which would give typhoid. These meteorological conditions occurred in Maidstone last year, but not in previous years.

Town sewage similar to that of Maidstone gives off in transit 1 to 1½ cubic inches of gas per gallon per hour, these gases being produced by putrefactory organisms breeding in the sewage The analysis of these gases shows their composition to be—carburetted hydrogen, carbonic acid, nitrogen, sulphuretted hydrogen, with ammonia and sulphate of ammonia, and a putrid organic vapour, sulphuretted hydrogen, composing only about 3 per cent

In theory these gases are supposed to be destroyed by diffusion on mixing with the atmosphere at openings made for ventilation, but in most cases, during the months of May to September, it is only the lighter gases which escape, leaving the heavier ones in the sewers and branch drains, to be discharged by excessive rainfall, or when the atmosphere on the surface, either by increased weight or by wind pressure, has attained sufficient force as a motive power to remove them There is not the slightest doubt in my mind that sulphuretted hydrogen, produced from sewage organisms, whilst only forming 3 per cent. of the volume of gases produced, is the most active agent in undermining the health of a district During the months from May to September, persons passing open gratings in the streets, on noticing the effluvia given off from ventilating shafts, would notice gases of a bad odour issuing from them and form the conclusion that good ventilation was going on instead of which it was only the lighter gases which were being dispersed, leaving the heavier ones in the sewers.

It is a very unusual occurrence for atmospheric conditions to allow those gases to increase in volume to such a large extent as they did between May and September last. Usually they are dispersed by rainfalls accompanied by gales of wind, which render them harmless. On the 29th September, the amount of organic sulphuretted hydrogen was not less than 16,720 cubic feet in the sewers of Maidstone, and the volume of fresh air polluted would therefore be 123,651,851 cubic yards, or an atmosphere equalling 1,779 acres, 2 yards, 6 feet in height, such atmosphere being recharged by the sulphuretted hydrogen 10 times before it was exhausted. But this equal distribution of sulphuretted hydrogen did not occur; the excessive rainfall of September 29, amounting to 11·24 inches in one day, siphoned traps and forced up into and about buildings sulphuretted hydrogen not so extensively diluted by the atmosphere.

"SEWER GAS AND ITS INFLUENCE UPON HEALTH."

We quote the following from the review of M. ROECHLING'S book in the "*Public Health Engineer*."—This, as far as we are aware, is the first attempt to collect in a handy and fairly popular form the existing data upon which are based our knowledge of the behaviour of sewer gas.

In his Preface the author says :—"Questions affecting Nature, and the processes by which she works her marvellous changes, should, in the author's opinion, not be looked upon from one standpoint only, but ought to be viewed in their entirety and with their surroundings, otherwise one is apt to exaggerate the importance of one or more symptoms and leave others—equally important, or perhaps more so—altogether unobserved. It is, therefore, to the harmonious working together of a number of specialists, such as the chemist, the medical man, the bacteriologist, botanist and engineer, that the author looks for the true answer concerning a number of questions affecting the health of individuals and communities." It is in this thoroughly unbiassed and scientific spirit that the author approaches his subject.

Mr. ROECHLING, divides his treatise into six parts, to which are added as many as 12 appendices.

The first part deals with general considerations. The author, while insisting on the importance of the subject, points out that no comprehensive treatise on the influence of sewer gas on health has hitherto been published in any modern language, and then goes into the history of the sewer gas controversy in England and foreign countries. The author then points out that we still know very little of the changes which fœcal matters undergo after evacuation and insists very strongly on the advantages of the water carriage system when properly carried out. Of course the most interesting part of the work is that which deals with typhoid. After briefly referring to MURCHISON'S theory of the spontaneous generation of typhoid fever by sewer gas, and its demolition, Mr. ROECHLING says :—

"Although by no means universally accepted, it is now generally held that the typhoid-exciting cause is the bacillus typhosus, a microbe which was discovered probably by EBERTH, KOCH, MEYER and GAFFKY."

In Part II. Mr. ROECHLING deals with observed cases of injury to health from sewer gas. Chapter I. of this section is devoted to a consideration of cases in which outbreaks of typhoid fever have been traced to sewer gas, and gives BUCHANAN'S investigations. In Appendix IX these cases are briefly recorded. A very interesting chapter goes into cases of coincidence of typhoid fever and faulty drains, and gives the experience of Leicester, Bristol, Hornsey, and Leeds. The Birmingham sewer-gas case occupies a chapter by itself. After going into the debateable question of the health of sewer men, and giving instances of septic poisoning through sewer gas, the author proceeds to tackle the question of analysis, and especially of micro-organisms in sewer air.

From this section we cannot refrain from quoting the following admirable passages :—

"Assuming, for the sake of argument, that the bacillus typhosus is the true cause of typhoid fever, it must not be thought that it is present in every litre of sewer air, but being only an occasional and periodical inhabitant of it, it would be found only in isolated places. It is, therefore, a mere accident if the experimenter happens to take his samples of air in a locality where the typhoid germs are, and just at the time they are passing his place of observation in an air current ; the next moment they might be wafted away and beyond his reach. Further, in a large sewer they might pass round his instruments, and so escape him. It is clear, therefore, that their chances of not being taken in isolated samples of sewer air are innumerable, and the chances of catching them extremely remote. These or similar circumstances may account for the fact that only one observer (Uffelmann) has up to the present been able to discover the pathogenic germ of suppuration in sewer air."

In another passage he says :—

"Therefore, those who look upon sewer air as capable of carrying the typhoid germ are in no worse position than those who hold the water responsible for some outbreaks of typhoid fever."

In other words, the difficulty of finding the bacillus typhosus in water is as little destructive of the sewer-gas theory as the failure to find it in sewer-air is destructive of the water-borne theory.

We will conclude our notice of this most fascinating work, which should be read by everybody who takes the slightest interest in sanitation, by quoting a few passages from the author's concluding chapters.

"When the history of the sanitary progress during the present century, which is now fast sinking into its grave, comes to be written, a very important place will have to be assigned to what has been termed the sewer-gas theory, as it has exerted a most powerful influence for good in the matter of house and general sanitation ; indeed, it has been stated that the results, which the conviction that sewer air or sewer gas is dangerous to health has brought about, surpass in brightness, excellence, and importance the results achieved by any other sanitary doctrine."

Further on he says :—

"Sewer air or sewer gas has the power of predisposing the constitution to typhoid infection, so that if the typhoid bacillus (and probably also others) is introduced into the system in some way or other after exposure to sewer gas, it finds there a favourable soil for committing its ravages."

Mr. ROECHLING quotes Professor BOSTOCK HILL'S paper on a case of poisoning at Sutton Coldfield, and also the very interesting experiments of Dr. G. ALESSI in Rome. Altogether this is a most excellent work.

DR. M. O. KELLER ON "FLOATING KIDNEY IN WOMEN."

HAVING passed in review and discussed the different causes which have been put forward to account for the condition, Dr. KELLER in the above named work which is published in Germany, directs special attention to the points which are likely to interest the accoucheur and obstetrician.

He does not think that pregnancy is likely to favor its development ; for by increasing the internal pressure of the abdomen it rather tends to restrict the movements of the kidney.

On the other hand after childbirth, there is a sudden decrease of the internal pressure, and in proportion to the extent to which the abdominal walls have been distended, they are now relaxed : this condition is favourable to movements of the kidney.

Consequently M. KELLER recommends as a isophylastic measure that an abdominal belt should be worn during pregnancy, especially if the abdomen is large ; to favour the regression of the abdominal walls the lying-in woman should remain in bed, supine, for at least three weeks and not sit up before the 17th day ; the intestinal functions should be regulated, and if there is any difficulty in passing water it is better to pass the catheter than permit straining.

He recommends that a belt should be worn for at least six weeks.

The same precautions are necessary after the removal of large abdominal tumors.

[illegible] further [illegible] that displacements of the viscera, or peri-visceral inflammation tends to displace the kidney.

The various thin fibrous connections which unite between the kidney and the genital organs, and moreover that if a floating kidney co-exists with disease of the uterus, it is often difficult to determine the part played by each of these organs in the causation of painful symptoms.

It is often impossible to decide except by treatment.

It is rare to find a moveable kidney confounded with an ovarian tumor, and more rarely still with a uterine tumor. Still it happens that the kidney is found in the pelvis and perhaps adherent to the uterine appendages; while on the other hand an ovarian tumor may be fixed in the lumbar region and thereby the diagnosis made very difficult.

In general however as M. KELLER says, the moveable kidney is easily recognised, only it is not thought of. Further, in every case where the genital organs do not account satisfactorily for the symptoms of the patient, it should be ascertained that the kidney is in its right position.

M. KELLER gives the following advice regarding treatment. Endeavours should be made to limit the movements of the organ by an abdominal bandage reaching up to the umbilicus, and tighter below than above. Pads should not be used, for they are useless and even injurious.

A bandage should always be tried in the first instance and only in cases of absolute necessity should nephoraphy be performed, the result of which is often only transitory.

As a last resource nephrectomy may be necessary.

PROFESSOR D. D. CUNNINGHAM, M.B., F.R.S., C.I.E.

MR. J. P. HEWETT, C.I.E., Secretary to the Government of India sends the following State eulogium on Dr CUNNINGHAM'S services to the Director-General of the Indian Medical Service :—

"I am directed to say that, on the retirement from the service of Brigade-Surgeon-Lieutenant-Colonel D. D. CUNNINGHAM, M.B., F.R.S., C.I.E., Professor of Physiology, Medical College, Calcutta, and Special Assistant to the Sanitary Commissioner with the Government of India, the Governor General in Council desires to place on record his high appreciation of the eminent services rendered by him to the State.

2. After distinguishing himself at Netley, Dr. CUNNINGHAM proceeded to Germany in company with the late Dr. T. LEWIS to study the so-called fungoid theories of the causation of cholera, and on arrival in India he was placed on special duty to investigate this subject. His first paper thereon was published in the seventh Annual Report of the Commissioner with the Government of India and gained for him the warm approbation of Her Majesty's Secretary of State for India. From that time until 1879, Dr. CUNNINGHAM was continuously engaged in the study of the Etiology of Cholera and cognate and similar subjects, and published a series of papers, mostly in collaboration with the late Dr. T. LEWIS, including "Microscopical researches into the Agent or Agents producing cholera" (1871-73), "The Fungus disease of India" (1874), "The soil in its relation to disease" (1874), "The Oriental sore as observed in India" (1875), "Leprosy in India" (1875), "Cholera in relation to certain physical phenomena" (1876). All or nearly all of these contributions are classical and have rendered the names of LEWIS and CUNNINGHAM familiar to students of tropical hygiene and of tropical medicine.

3. In 1879 Dr. CUNNINGHAM was appointed to the Chair of Physiology in the Medical College at Calcutta—a post which he continued to occupy till he was compelled to take sick leave last year. By his zeal and devotion to his work he introduced a high standard of efficiency in the teaching of Physiology in the College. He was the first Professor to demonstrate histological preparations to the students in a systematic way, and also the first to teach them the practical use of the microscope. His generous sympathy with the earnest student and his unusual appreciation of all the best features in the character of his pupils enabled him to stimulate in a high degree the growth of scientific thought amongst those who attended lectures. It is difficult to exaggerate the effect of his personal influence in the development of medical education in Bengal, and the Government of India anticipate that it will be long before it ceases to be felt in the College.

4. In 1884, while the controversy regarding the significance of KOCH'S great discovery of the comma-bacillus was become acute, Dr. CUNNINGHAM was appointed Special Assistant to the Sanitary Commissioner for the purpose of investigating this problem, and the results of his labours have added to his reputation among Scientists throughout Europe.

5. Dr. CUNNINGHAM'S most recent labours have been directed towards investigations connected with Snake-bite and the discovery of remedy. In the course of these investigations he has been successful in clearing away many serious errors

6. Dr. CUNNINGHAM has twice received the thanks of the Government of India for reports submitted by him in collaboration with the late Dr. LEWIS on the Oriental or Delhi sore (1877), and Cholera in relation to certain physical phenomena.

7. In 1885 he was made an Honorary Surgeon to His Excellency the Viceroy. In 1891 he acted as delegate to the Congress of Hygiene and Demography of that year. In 1893 he was created a Companion of the Order of the Indian Empire and in 1894 he was deputed to Rome to represent the Government of India at the International Medical Congress.

8. By the retirement of Dr. CUNNINGHAM, the Government of India lose the services of one of the most distinguished of the scientific men who have served them, the Indian Medical Service one of its most eminent Members, and yourself an invaluable adviser. He carries with him on his retirement the warmest thanks of the Government of India for his long and distinguished services.

ANALYSIS OF AIR.

THE *Public Health Engineer* has some very apposite remarks to make on the subject of Air Analysis. As to the quality of the air, we consume, we generally know nothing. "We certainly have found means of expelling the air from our dwellings, but are we not a little careless about the quality of air we introduce? It may come to us from the ventilating shaft of a sewer, it may contain in it the unconsumed products of combustion of a factory, or the fumes of a neighbouring gas works. For all we know the air introduced into our rooms may be just as bad as the air we have expelled.

WANKLYN and COOPER are quoted as saying. "The air of Churches ought to be rigorously examined for reasons which need not be particularly mentioned. Defilement of the air is the result of fermentation, putrifaction, inspiration and combustion, and whenever these processes take place, there must be vitiation of the atmosphere, unless there is a free circulation of air. In short, the inside of all buildings affords scope for air analysis and the question which air analysis enables us to answer is this— Is the ventilation of the building sufficient?"

The *Public Health Engineer* continues "We have our water supply periodically tested by experts, is it not still more important that the air of Churches, Theatres and other places, where people most do congregate should be analysed also.

We know that the more foul a sewer is the more does it pollute the air it ventilates into. So well is this recognised that the most modern sanitary authorities affirm that the primary duty of the sanitarian is to prevent the sewers from getting foul at all.

If you keep the sewers sweet you do not pollute the air we breathe, that is very evident. Is not the same thing true of houses, and more specially of large colonies of houses, of towns, and particularly of manufacturing towns? These centres of population send into the atmosphere out of their badly-ventilated dwellings and factories, dense volumes of vitiated air, by which the entire town is polluted, until it becomes a danger to live in such a town; and medical authorities declare that the denizens of towns become in the third generation stunted in growth, emaciated and miserable, and eventually die out.

ENTERIC FEVER AND WATER SUPPLY.

Some remarkable and unexpected results have recently been put forward by Mr. A. H. Smee, the Chief Medical Officer of the Gresham Life Assurance Society, which show in a broad way that the mortality from Enteric Fever in various English and other towns is higher when the drinking water is obtained from either moorlands or chalk than it is when the supply is drawn from rivers and efficiently filtered.

These results are remarkable because they are at variance with what is usually taught in text books with reference to the selection of water supplies.

"They show that proper storage and filtration of river water and the action of light and air have a remarkable effect in reducing the risk of fever."

"Among the towns deriving their water supply from the chalk, Mr Smee instances the following death-rates from fever per million living in 1896 Hull, 280, Norwich, 193, Epsom, 190 (mean of 10 years), Portsmouth, 153 Among towns receiving their supply from upland and moorland surfaces are Belfast 560, Dublin 453, Liverpool 322, Glasgow 223, Leicester 206 Among towns supplied by filtered river waters are Hamburg 58, Cologne 49, Frankfort 42, Altona 41, while London, supplied from rivers and chalk, has a death-rate from enteric fever of 137 per million living. Taking the death-rates for the first three quarters of 1897, the results are more discrepant. Thus, Croydon (supplied from deep chalk wells) had a death-rate from enteric fever of 75, Portsmouth (chalk wells) of 185, Birmingham (partly wells in red sandstone and partly upland surface water) 130, London 79, Bradford (upland surface water) 82.

There are of course exceptions to this general rule, one of which Bristol, is pointed out by the *British Medical Journal*.

No doubt as Mr. Smee admits "Other considerations must be taken into account besides the source of the supply."

Let these considerations, however, be what they may Mr Smee's broad generalisation is a very curious and valuable one and we hope that it will lead to further investigations being undertaken.

The whole of our ideas concerning the part played by water in the production of Enteric fever, have lately tended to run in very narrow lines, and a widening of the outlook will be a very acceptable change.

In helping to bring this about Mr. Smee has done yeoman's service.

MEDICAL SLANDERING.

There is an old adage which says "an idle brain is the devil's workshop." This trite old truth has been strangely verified in Calcutta quite recently in the person of a youthful gay lothario of the Indian Medical Service, whose office is a perfect sinecure, since he is little more or less than a sort of camp follower or superior clerk. It is an appointment that demands nothing worth the name in the way of scientific ability, nor the glamour of a professional reputation, nor anything else to command respect or admiration. Failing to fatten on his handsome State salary and thus to become lethargic in both body and mind, he utilises his vast unemployed energy in torturing the minds of others by blackening characters and retailing unsavory morsels of slander into unwilling ears True to his satanic instincts, he breathes out poison caring little for its insidious and dire effects, and when hunted, in order that he might be pilloried and punished for his crimes, he shrinks into his hiding place, "a refuge of lies" Conscious of the ever present fact that his official position with its assured income does not need an unblemished character to establish and support it, he is oblivious to the stern reality that the practising physician knows that the mainstay, the sheet anchor of his success, necessitates the the straining of every effort to maintain a blameless record in thought, word and deed. To attack the practising physician's moral character, is to rob him of a priceless jewel and to deprive his children of their bread. It is impossible to denounce a slanderer in sufficiently scathing terms. Slander is a mean, cowardly, contemptible crime, a moral defect which cannot be guaged either in the depths of its depravity nor in the enormity of its baneful consequences. Once uttered, the hateful breath of slander permeates the longest span of human life and throws a dark shadow along its otherwise happiest and most prosperous career. We often wonder if men pause to consider the eternal heinousness of this worst of all social and moral sins, which never fails to find a Nemesis sooner or later.

Had this moral monstrosity—who unfortunately belongs to the medical fraternity—considered for a moment, the poisonous effects of his dark and shady dealings, he would never, as he has done quite recently, have vilely slandered a non official physician to one of his patients, nor would he, unless he were a perfect sample of the true genus of scandal-monger, have resorted to the cowardly device of denying the authorship of his slanderous statements, when threatened with a criminal prosecution. The "refuge of lies" is not always an invulnerable shelter, but the vision of threatening justice, will, it is hoped serve to warn this slanderer and one or two others of his ilk, that the throwing of stones is a dangerous practice, for like a boomerang, a stone has been known to rebound and destroy the hand that sped it on its evil mission

THE RESPONSIBILITY OF MEDICAL EXPERTS

Says the *Lancet* —"Public attention is once more directed to the case of Dr. Meloche whom the *tribunal civil* of St. Nazaire last year ordered to pay 1,000 francs (£40) damages to a woman accused of abortion. Dr. Meloche, who was the expert entrusted with the duty of examining the accused, believed that in all probability abortion had recently occurred. The woman's refusal to answer certain questions and her contradictory statements induced him to make a guarded diagnosis, and three days afterwards she was delivered of a five months' foetus; she had been arrested after his report was presented, but was immediately released, and believing that his mistake carried with it responsibility for her arrest she brought an action for damages

against him. The court in giving judgment against Dr. Melouch blamed him for not having made a chemical examination of the blood, entering thereby into scientific questions its imperfect knowledge of which led to absurd expressions of opinion. This judgment was reversed by the Appeal Court on several grounds. Firstly, because the medical man in question had acted with all necessary prudence and had only given an opinion that there was a great probability of abortion having occurred. Secondly, this judgment, by affirming the responsibility of medical experts, would render their action impossible for the future. The medical expert is fallible. When he is consulted by a magistrate it is his duty to give a candid opinion and it is for the magistrate to obtain further information by reference to another expert, if the report of the first one leaves him in uncertainty. An expert who, like Dr. Melouche, describes an offence as being highly probable could not be responsible for the conclusions which the magistrate, irresponsible himself, draws from the medical man's undecided opinion. Under these circumstances the case came before the Appeal Court of Rennes on 26th May, and judgment was delivered on 3rd June, reversing the judgment of the *tribunal civil*, and declaring that Dr. Melouche had acted prudently in not giving a positive opinion in a difficult case and in not committing himself to more than the probability of the condition referred to. Furthermore, it could not be said that the opinion given by Dr Melouche was the immediate cause of the arrest. This belongs to the province of the magistrate and consequently the medical expert cannot be held responsible for it.

THE C. D. ACTS IN INDIA.

A London correspondent sends us the following paragraph for insertion —' A Memorial, signed by upwards of 1,000 mothers in various parts of the kingdom, has been forwarded to Lord Salisbury by the Countess of Carlisle, protesting against the principle involved in protecting the health of British troops by means of the medical supervision of women. The Memorialists consider that such measures practically concede the reasonableness of vicious indulgence, and its right to protection by the State at the cost of others, thus giving it an appearance of State sanction, and that the demoralising influence thus created must necessarily spread from the army into civil life. They see reason to fear that such methods may, as heretofore, be extended and strengthened, in a manner more and more damaging to the national character; and they see no reason to hope that they will even then prevent the spread of disease, as they have hitherto proved almost or quite unavailing for that purpose. Much as they would dread the return of their own sons from foreign service wasted by revolting disease, which might be transmitted to their posterity, they would dread no less their return as dissolute and hardened men, expecting to have a class of women placed at their disposal under safe conditions by the State; and they urge that the State is rather bound to protect the young men who enter its service as well from moral as from physical contamination. They believe that a rapid and permanent diminution of disease is more likely to be brought about by the promotion of a higher moral standard throughout all ranks of the army, by maintaining the principle recently laid down by the Viceroy of India, that vicious indulgence, which unfits a man for service, must rank with treachery and cowardice as a sin unworthy of a soldier; and by the adoption, throughout the army, of judicious methods of discipline and encouragement, combined with a minute watchfulness of the progress made, and the special commendation of those officers who are most successful in promoting good conduct, and diminishing vice as well as disease among their men. Finally, they also urge upon the Government their responsibility towards the women of the rising generation, who must either share or suffer from the demoralisation produced—a demoralisation which cannot but impair both the sanctity and the happiness of the English home."

A SCHOOL OF TROPICAL DISEASES.

A proposal is on foot to establish a school of Tropical Medicine in London.

It appears that the Seamen's Hospital Society propose to utilise the large amount of clinical material in their hospitals and dispensaries for practical instruction in tropical diseases. With this object they have it in contemplation to build school premises, including residential quarters for eight students at their Albert Dock Hospital, which will be enlarged to accommodate forty patients. The staff at Greenwich and at the Albert Dock Hospital will be invited to co-operate with the Society in this new undertaking. The course of instruction will be based on a definite plan; the syllabus covering all the more important tropical diseases. The course will extend over a period of two months, and thus five batches of students will pass through the school every year, leaving August and September free for vacation. The residential system is considered desirable because of the distance of the school from town and because men will thus have opportunities of continuous observation so essential in the case of certain tropical diseases. Provision will also be made for non-resident students. For the residents an inclusive fee of 4 guineas a week is suggested, this amount covering all expenses of instruction, board, and lodging. For non-residents the fee will of course be considerably less.

It is estimated that a sum of £10,000 would be required to place the School of Tropical Diseases on a solid footing. In a country where the practical importance of scientific knowledge is better appreciated by the Legislature than it is here, the money would be given for such a purpose without hesitation.

A scheme of this description should certainly receive government support, and in the present instance there is every hope that it will. We hope soon to hear that the new school is safely launched.

THE MICRO-ORGANISM OF BERI-BERI

In the *Lancet* of June 25th, Dr. Walter K. Hunter publishes a "Note on the Etiology of Beri-Beri based upon two cases in the Glasgow Royal Infirmary. He concludes "that the white staphylococcus of Pekelharing and Winkler is in truth the specific micro-organism of beri-beri."

In both these cases specimens of freshly-drawn blood were examined at various times and on each occasion micro-organisms were to be seen in rapid motion in the spaces between the groups of corpuscles

These micro-organisms were successfully cultivated and rabbits inoculated. When killed the *post-mortem* examinations were negative as far as naked eye appearances go but the nerves showed unmistakeable evidence of parenchymatous degeneration.

The food of the two patients, one a native of Bombay and the other a native of Zanzibar, consisted of rice, split peas and two kinds of dried fish; from these, cultivations were made with the result that from the rice there was readily cultivated a white staphylococcus with similar morphological characters to the staphylococcus beri-beri which was grown from the blood of the two patients. This staphylococcus which was grown from rice liquefied gelatin in 19 days. Its pathogenic properties were tested

by injecting a fourth rabbit. The post-mortem results were the same as in the other cases. And the white staphylococcus was readily cultivated from the blood of the rabbit. Dr. Sawyer concludes that this white staphylococcus which was grown from rice is the same micro-organism as that which was found in the blood of the two patients, and therefore considers that rice taken as food may be a source of infection.

THE INDIAN MEDICAL SERVICE.

The second annual dinner of the Indian Medical Service was held at the Hanoverian Restaurant, London, on 9th June, and it is hoped that the agreeable opportunity thus afforded for meeting old friends will become an annual event. The chair was taken by Sir Joseph Fayrer, Bart., K.C.S.I., and, after the usual loyal toasts had been honoured, Surgeon General Du Rieux proposed that of the sister services. This was acknowledged in a very telling speech by Surgeon-General Jamieson, C.B., the Director-General of the Army Medical Department. He referred to the brotherly feeling which existed between the medical services of the army and of the navy, and to the even more intimate relations between the army and the Indian Medical Service. He claimed for the military medical services that they discharged their duties to the Empire in a manner which had not been surpassed by the medical service of any other country, and he enforced his claim by a reference to the comparative mortality of expeditions recently conducted by France and by Great Britain. He concluded by proposing the toast of the Indian Medical Service, which was acknowledged by Sir Joseph Fayrer. The toast of "The Guests" proposed by Sir Joseph Ewart was acknowledged by Sir R. Douglas Powell, Bart., and Dr. Sansom. Due acknowledgments were also expressed to the Chairman and to Mr. P. J. Freyer, the Honorary Secretary. Before the company separated Sir Joseph Fayrer made some weighty remarks upon the new army warrant which Lord Lansdowne has promised to issue constituting a Royal Army Medical Corps. He emphatically repudiated the allegation that the medical officers desired general military command, they did not desire to step out of their proper sphere, but they claimed that within that sphere they should have a defined position, and should possess definite army rank. This, he said, was essential in the interests of the service as a whole, for without it the medical services could not discharge their duties to the army at large with efficiency.

THE REGISTRATION OF MEDICAL PRACTITIONERS IN INDIA.

The *Philadelphia Medical Journal* says —"At the present moment it is open for any uneducated and unqualified person to practise medicine in India, while the sumptuous imagination of the Oriental offers a premium on quackery. Quackery is therefore rampant, but the English Secretary of State for India, Lord George Hamilton, has recently declared in the House of Commons that he does not see his way clear to apply the only possible remedy, *viz.*, a strict system of registration, which should make it unlawful for any except duly qualified persons to live by the practice of medicine. His lordship refused to introduce to the House or to support a bill for the registration of medical men in India, on the ground that it was natural that the natives should resort to native practitioners; and so far his attitude was in keeping with the best traditions of Anglo-Indian Government. The greatest respect has always been shown for native prejudices, although the sacred duty of every nation to progress has been considered before these prejudices. At the same time Lord George Hamilton's decision is open to criticism. The formation of an official list of registered practitioners need not interfere with native habits at all. It does not make the practice of unqualified persons illegal. It would simply provide a means whereby the native—and the white man too—would know at once the qualified quack from the unqualified, and if, with such means at his command, a native should choose to employ the unqualified the result must be regarded as of his own seeking.

INTRAMURAL BURIAL.

The dangers which may arise from intramural burial are well represented by the case of the church of St. George-the-Martyr, Southwark, which has, owing to the activity of "the Public Health Engineer," recently attracted a large amount of attention in London.

It appears that the atmosphere of the church is being poisoned by effluvia from the crypt which was formerly used as a burying place. Dr. Waldo the Medical Officer of Health stated, "that he had examined the crypt and found many coffins worn out and bones scattered upon the ground. A large crack in the wall would allow effluvia to escape into the church." "He considered the condition of the crypt dangerous to health. There might be 2,000 bodies in the crypt and the effluvia was very strong."

Professor Wanklyn and Mr. W. J. Cooper were deputed to make a chemical examination of the air; they reported that it contained 20·65 volumes of carbonic acid in 10,000 volumes of air, and they expressed the opinion that it was "dangerously impure." So we should think considering that this is more than 3 times the maximum of permissible impurity according to the best authorities.

How to get the bodies removed is now the practical point, but as the cost will be £1,000, none of the authorities appear anxious to undertake the task, and a good deal of ill-feeling amongst those immediately concerned, is the natural, if quite illogical result of the publicity so suddenly bestowed upon them.

ONE VIEW OF THE ANGLO-INDIAN PROBLEM.

Mr. Andrew Wilson, in his excellent book *The Abode of Snow*, page 75, says —

"In the North-West Provinces, however, while personally liked, (the viceroy) much animosity was excited, especially among non-official Englishmen, by what was considered to be his undue favouritism towards what are called the educated natives. I was somewhat surprised at the depth and fierceness of the resentment which had thus been excited. One man in a responsible position, went so far as to say that the next rebellion in India would be on the part of the Europeans and Eurasians, and that when such a movement arose, every English soldier who had been six months in the country would be on their side. This may appear very absurd to Indian officials, who know little of the passions raging in the hearts of the people round them, whether natives or Europeans but I think there is something in it, and that it correctly enough indicates the existence of feelings which are not without some ground. Another remark of this man, who was educated, shrewd, and had a wide and varied experience of the world, is worth noting, without attaching to it more importance that it deserves. He said: "The civilians think, that India was made for themselves and the natives alone, and it is becoming every day more impossible for non-official Englishmen to live in the country; but the natives are discovering that the civilians are quite unnecessary also, and it will end in our all having to go together the Englishmen to England, and the natives to massacre, famine and pestilence."

[illegible] AND INDIAN MEDICAL SERVICES.

The A. M. S., it appears, could at the highest numerical strength during the sixties, when it included within its folds about 1,100 martial medicos. For a considerable time subsequently the average strength was 950; but in its present depleted condition, the A. M. S. only numbers some 800 multitudinous officers. The non-effective list contains about 370 men; but of these 120 are liable to recall on the occurrence of emergencies, and 94 are actually filling retired pay appointments. The Unemployed Non-effectives thus amount to about 260; while the absolute non-effective—that is to say, those who are above 55, and are not liable to recall—come up to 200. Thus there are, on an average 20 non-effective to every 100 effective medical officers. As there are 7,500 officers on the non-effective list, the total number of Army Medical non-effectives (*viz*, 370) form 5 per cent of the numerically formidable non-effective brigade. With regard to the Indian Medical Service, the non-effectives number 300; while the average strength may be set down at 600, and perhaps slightly over this number. Thus there are nearly 50 non-effectives to every 100 officers on the Active List; and the Indian Medical Service supplies 4 per cent. of the total non-effective list of the Army, while both the medical services combined account for 9 per cent. of the grand total of Army non-effectives.

INDIAN AND ANGLO-INDIAN *VERSUS* BRITISH PLAGUE DOCTORS AND PLAGUE NURSES.

We invite correspondence and comments on this subject which is of considerable importance to India and Indian finances. At no time has greater point and significance been given to the injustice and the criminal cruelty of the Indian Government in the matter of its disregard of the claims, the qualifications, the rights and the privileges of local medical and nursing talent, than in the importation of British doctors and British nurses for dealing with plague and plague patients in India. That both these imported agencies were absolutely unnecessary, in view of the abundance of qualified material in this country, is proved by the ludicrous failure of the material sent out by the Secretary of State for India. If anything has recently been done by the Government to cause a most righteous and indignant denouncement of its heartless dealings with the aspirations and the legimate claims of the people of this country it is to be found in the appointment of outside labor when indigenous material of as good and even better quality was available and at hand. We shall have much to say on this matter, but at present we invite public criticism on the subject

ANGLO-INDIANS AND THE IRISH CAUSE.

When Gladstone was spending his last few days on earth at Bournemouth, he wrote a characteristic letter to one of the leaders of the Irish Cause—Mr. Dillon, M. P. The following paragraph from that letter dated the 9th March 1898, is peculiarly expressive of the socio-political condition of the Irish people as also of Anglo-Indians. Both the Irish and Anglo-Indians are oppressed by a form of government that is very galling to them, both these peoples have grievances common to each other in their disabilities and in the denial of their rights and privileges, and the advice of the greatest of modern English statesmen is embodied in these few words of Gladstone's pathetic lines to Mr. Dillon :—"Your cause is in your own hands, if Ireland is dissatisfied, her cause so long unwise hopeless, if on the contrary, she knows her own mind and is one in spirit, that cause is irresistible." May Ireland win the pathway to vitality and freedom that opens up to her, if she will but follow the Grand Old Man's advice. Anglo-Indians will find in these prophetic lines a complete and perfect reiteration of Lord Dufferin's well-balanced opinion. He said exactly the same thing of the Anglo-Indian race in India. UNITY and SUCCESS are synonymous terms. Let Anglo-Indians mind them aright.

CALCUTTA PLAGUE SPOTS.

The residents of Upper Circular Road have once more memorialised the Municipality in reference to the removal from that locality of the disgusting and filth-laden platform which pollutes the air and spreads disease around. These platforms were erected some thirty years ago when the conditions of the city were different from those obtaining now, and can find no possible justification at the present time, especially when plague is stalking through the city. In the words of Dr. Simpson these platforms, apart from the effect they have of seriously depreciating the value of property, are injurious to the health of those who live near them on account of the "breathing and swallowing of the filth which is wafted by the air into their houses." He adds: "The inhabitants of Circular Road are subjected to a serious nuisance, and a fine street is depreciated in its property value." The nuisance, in fact, is so great and so overpowering, that during the rainy season some of the respectable inhabitants are compelled to leave their houses and seek shelter elsewhere. We understand that a resolution was passed some time ago by the Commissioners sanctioning the removal of these disease-manufacturing platforms. It is high time that this resolution was given effect to, for it is no credit to Calcutta, or to the Municipality either, that such a festering plague spot should exist at the end of the nineteenth century within half a mile of Government House and almost in the heart of the Capital of India.

RADIOGRAPHY OF ARTERIES AND OF EXTRA UTERINE PREGNANCY.

At the meeting of the Biological Society of Paris, M. Turbert showed some radiographs, the first of which taken from a dead body, showed clearly the radial and ulnar arteries, and the course of these arteries could be followed even where their radiographic shadow was superimposed upon that of the bone. The vessels had not been injected. The second plate was taken from the foot of an old man The anterior tibial artery could easily be seen and followed throughout the greater part of its course. These plates are the first where the shadow of the uninjected artery has been obtained. M. Turbert also obtained some months ago a radiograph of a young woman, about twenty-five years of age, who had been sent to the hospital with a diagnosis of extra-uterine pregnancy. He was able to confirm this diagnosis in opposition to the opinion of some of his colleagues, who considered that she was suffering from either a hæmatocele or a growth. The radiograph showed clearly the presence of a fœtus of about five or six months, and the head and body and lower limbs were clearly shown upon the plate.

DIAMOND CUT DIAMOND.

The recent death of Sir Richard Quain, who had been what some Americans might call a "hustler," has brought forward the following anecdote of London high-life practice. Dr. Quain, as the *London Practitioner* states it, had in a very high degree the power of inspiring confidence, which is of vital importance in the equipment of a successful city physician. He was a past master in the art of managing patients. There is a legend, however, that he was once driven from the field by a still more consummate artist. A financial magnate of Israel had been suffering for a long time from renal

trouble of a grave character, and which it was considered expedient by QUAIN and other physicians in attendance to conceal from the family. The wife insisted, much to QUAIN'S annoyance, on calling in Sir WILLIAM GULL, who, she said, would be sure to tell her what her husband was suffering from, which apparently none of the doctors knew. Gull, when interpolated on the subject, replied in his most oracular manner: "Madam, your husband is suffering from a cachexia." "There," said the lady, triumphantly, "I knew Sir WILLIAM GULL would tell me.

THE DIPLOMA OF THE APOTHECARIES SOCIETY.

A CORRESPONDENT of *The Lancet* writes to that journal as follows:—"SIR,—With your permission I should like to make a few remarks respecting the late prosecution of a L. S. A. Lond. by the General Medical Council for describing himself as a physician and surgeon. I presume that the proceedings were taken under Section 40 of the Medical Act, 1858, for *wilfully and falsely pretending to be recognised by law as a physician and surgeon.* In 1883 the following letter was published in the leading medical journals:—

Society of Apothecaries, London,
Blackfriars, E. C., 27th Sept. 1883.

My Dear Sir,—The title of Surgeon has long been in use, implying medical practitioner, but the L. S. A. is a licentiate in surgery as well as in medicine. It cannot be said that he is not a surgeon. It seems to me he may call himself what he likes—physician if he pleases.

Yours faithfully,
F. P. Moles, Esq., T. PEREGRINE, M.D., Secretary.

After such a statement, publicly made and never challenged, I cannot see that a L. S. A. who describes himself as a physician and surgeon can be said to *wilfully and falsely* misdescribe himself. I have in perfect good faith described myself as a surgeon for several years and I contend that we are recognised by law as such. Sec. 2 of the Medical Practitioners' Act, 1876, says: "All legally qualified medical practitioners, with qualifications in medicine and surgery registered under 'the Medical Act.' shall be capable of being elected surgeons to county infirmaries or hospitals in Ireland."

THE PASSING OF THE REFLEX.

DR. PATRICK (*Intercollegiate Medical Journal*), writes as follows: "And this leads me to mention what has already begun and what, God grant, may soon be consummated—the passing of the reflex. When to the nerve specialist comes a case of epilepsy, with a note from the family physician saying that the ovaries have been removed without effect, and so perhaps the trouble is in the brain; or a case of convulsive tic, with the message that the spasm has continued in spite of cauterisation of the turbinates; or as occurred to me a few days ago, he sees a born neuropath with typical traumatic neurosis who has undergone five pelvic operations for relief of her nervous symptoms— he groans in spirit and looks longingly forward to the millennium, when the man who operates shall have or procure an adequate understanding of that for which he cuts. In the meantime, under the keen scrutiny and rigid requirements of neurology, the so-called reflex as a cause of great nervous disorder is gradually being pushed into its rightful place—that is, among the relatively unimportant curiosities of etiology.'

NEW HOSPITAL FOR BERLIN.

A PROJECT is on foot to construct a fourth grand hospital replete with everything that is required by modern hygiene, in the northern part of Berlin.

A sum of sixteen and a half million (marks we presume) will be devoted to the construction of the building. The hospital will cover an area of forty-seven hectares (116 acres) of which thirty-seven will be taken up by hospital wards, which for the most part will consist of one storied pavilions.

There will be twenty-seven pavilions with a total of 1,650 beds.

Annexed to the hospital will be the Institute for infectious diseases which is supported by charity, a Lying-in Hospital and a School for the instruction of nurses.

The new establishment which will be completed in 1902 will be lighted by electric light and will comprise a hydropathic section with various baths, simple and medicated, a section for physical methods of treatment and especially for mécanotherapie.

In addition to two Medical Directors and the heads of each department, there will be an assistant physician for each 50 patients.

THE "BRITISH MEDICAL JOURNAL" IN HYSTERICS.

WE note with amusement that the telegraphic account of Dr. KOCH'S speech at the Colonial Society of Berlin on Malaria, which was wired to London, has caused the *British Medical Journal* to break out in a mild attack of Hysterics.

The result is a short leader entitled "Honor to whom Honor is Due" in the issue of 18th June.

The cause of the attack is *not* that Dr. KOCH claimed to have been the discoverer of the mosquito theory of malaria, for no such claim was put forward, but the bare suspicion that some people might think he had made this claim. This is surely carrying one's sensibilities a little too far, and such an outburst is hardly seemly in the columns of a sober and respectable, if lamentably dull Medical Journal.

Let it once and for all be known to all men that the *British Medical Journal* is the sole proprietor of the wonderful "mosquito" theory, and that only to mention it is to impinge proprietory rights. The managing agents and advertisers are MANSON ROSS and Co. We are sorry to say we have no faith in the evidence put forward as to the soundness of the concern, and cannot recommend it as a good speculation.

PLAGUE IN BOMBAY.

THE plague mortality, which began to decline in the middle of March, maintained a steady decline until the week ending the 7th of June. Since that week the mortality has shown an irregular record as follows:—

Week ending 7th June	...	... 44
14th "	...	... 26
21st "	...	... 15
28th "	...	... 53
5th July	...	... 38

These figures show that the decline has been regular and constant and has only increased in the last two weeks, when 53 and 38 deaths were recorded. Why the mortality should suddenly jump up from 15 in the week ending 21st June, to 53 in the the next week, cannot easily be explained. It is true the mortality has again declined from 53 last week to 38 in the present week, but whether this second decline will continue, and for how long, or to what extent, is matter of pure conjecture.

CIVILISED MANNERS FOR THE MEDICAL PRACTITIONER.

As the gentleness and sympathy of the Medical adviser very often effect half the cure the *New England Gazette* tells us that a doctor must learn to:—(1) laugh (2) tell a story, (3) keep his own troubles to himself (4) stop croaking, (5) hide his own pains and aches under a pleasant smile (6) not to cry and to (7) meet his friends with a smile, because while the good humoured soul is always welcome, the hypochondriac

or the dyspeptic is most always an insufferable nuisance. Besides which a good laugh and well told story are a god-send to a sick room. Then the world which is too busy to care for your ills or sorrows is just as indifferent to your pains and while tears do well enough in novels they are out of place in real life where it is kinder to do good, than harm, and paddling in dirty water must soil the paddlers' clothes.

THE NORTH-WESTERN FRONTIER WAR.

We give the following abstract from a letter of a young army surgeon, which appeared in an English paper:—

"On the 25th, Christmas Day, we marched to a place called Karumma, which is a valley with about a dozen villages, with towers in each. A reconnaissance went out that day (two companies), and I sent my assistant in charge with stretchers, &c. All went well until the party was returning when the rear company was fired on by men who were concealed high up in a cave, the mouth of which was protected by a wall or sangar. It was too late to think of attacking the place. One man was killed at once by a shot through the head, and another man was wounded seriously in the knee. Military Assistant Surgeon BONNAR acted with great coolness, going back some distance under fire and bringing the men off on stretchers. The dead man was buried next morning early, in the valley just below our camp and some fodder was burnt over the grave so as to conceal the place of interment, as the Afridis are not above digging up a corpse in order to subject it to indignities.

STATE SANITATION IN INDIA.

THE *Indian Planters' Gazette* says:—"It is comforting and really reassuring to find one medical journal at least in this country which keeps a very keen eye on the failures of the Sanitary Commissioner with the Government of India. The *Indian Medical Record* of the 16th July, criticises with remarkable clearness and with pointed effect the erroneous conclusion into which the Sanitary Commissioner has been led by the statistical reports of the various presidencies and provinces in regard to the prevalence of enteric fever in this country in relation to water-supply. This dreadful scourge and its strange antics are very little understood, and what is worse still, nothing worthy the name, in the way of research towards the discovery of its causation, is being carried out, and this and other facts the *Record* exposes mercilessly.

THE PARKES' MEMORIAL PRIZE.

THIS Prize, founded in memory of the late Professor E. A. PARKES, M D., F R S, and awarded triennially, is open to all medical officers of the army, navy, and Indian services of executive rank on full pay. The prize, which is of the value of 25 guineas, accompanied by a bronze medal, has been awarded this year to Surgeon-Captain FRED. SMITH, of the Army Medical Staff The assessors were Dr. ARTHUR RANSOME, F R S, Dr. JAMES NIVEN, and Professor SHERIDAN DELEPHINE, M D. of the Victoria University. The assessors also declared that Staff Surgeon W. W. PEYN, R.N., and Surgeon-Lieutenant-Colonel ANDREW DUNCAN, Indian Medical Service, contributed essays of great merit. The subject was. "The Etiology, Prevalence, and Prevention of Diphtheria."

STEPS TO PREVENT THE SPREAD OF EPIDEMIC DISEASES BY SOLDIERS IN FRANCE.

IN order to avoid the spread of epidemic diseases in France the Military authorities have issued an order that all men leaving the corps either on discharge or pension, must be medically inspected on order that those who are suffering from contagious diseases may be treated before their departure.

The same rule applies to men going on furlough, who are to be kept back if they present symptoms of even slight and non-contagious affections. Commanding officers are as much as possible to grant leave, in suitable cases, to sick men to return to their native places for cure, and will regulate the length of the leave to the probable time required for the cure of the malady.

THE DEATH OF "SIR ROGER TICHBORNE."

THE hero of the extraordinary Tichborne trial has just died in London. Although it is now 27 years since the litigation began, which terminated 5 years later in the recently deceased man being condemned to 14 years penal servitude under the name of ARTHUR ORTON, public interest in the case has not entirely died out. All the English newspapers are giving short résumés of the proceedings at the trial. ORTON was largely convicted on medical evidence, as the indelible nature of certain scars and vaccination marks ruined his case.

A CURIOUS LAWSUIT.

A VIENNA specialist received $35 for ridding a man of a tapeworm. Afterwards the patient thought he had paid too much and demanded $20 back. The doctor demurred and was sued. He could not, he argued, put the tapeworm back where he took it from, and if he could he was not sure that either the patient or the law would let him. Besides, the tapeworm was dead. The patient complained that it was only a short one. The doctor said he could not fine any precedent for removing tapeworms at so much per yard. Finally the doctor gave the patient back $2 50!—"Literary Digest."

SHORT ITEMS.

Dr. Raghavandra Row, who was elected by the Committee of the Tata Higher Education Scheme to proceed to England to read Medicine in general, and Bacteriology in particular, having obtained the Degree of M.D. of the London University in 1897, has now been elected to the Grocers' Company's Research Scholarship of £250 to proceed to Bombay to undertake an Investigation on the Typhoid Fever Bacillus. This is the first distinction conferred upon an Indian from amongst a large number of scientific English workers, who applied for the Research Scholarship. Dr. Row will leave England early next month, and will work in the Petit Laboratory.

The committee to consider the improvement of Field Hospital equipment has commenced its sittings at Simla. The President is Surgeon-Colonel Townsend, lately Principal Medical Officer with the First Division, Tirah Expeditionary Force, and the Members are Surgeon-Majors Burke, Shearer, and Duncan. The principal matter that will be taken into consideration will be the question of improving the mobility, by lessening the weight of appliances.

A very sad case is recorded from Bombay of the death of an European student who, while helping the Professor of Pathology to perform a *post-mortem* examination in a case of plague, accidentally cut his finger. The lad, who is described as "a promising and industrious student, and a conscientious worker," contracted plague and died within a week of the date of the wound. Two similar fatal cases of plague, contracted by *post-mortem* wounds, have lately occurred in Calcutta.

Rumour has it that Lieutenant Colonel George Ranking M D. I.M.S. intends while on furlough placing the grievance of his unjust removal from the Superintendentship of the Presidency General Hospital before the Secretary of State for India. Unquestionably it is unfair to offer and even to give a *medical* appointment to a professor of Oriental languages and Shakespeare, and then to snatch the gift from him However let us see what that hateful bugbear of an India Office does to soothe a *rankling* spirit.

The rules and regulations for the Calcutta plague nurses are being freely commented on at Bombay among the plague doctors and nursing sisters as cruel and insulting. Several

of the Hotels at present off duty owing to the closing of the hospitals, and whose services are at the disposal of Government, have expressed their determination to resign rather than accept a transfer to Calcutta under such conditions.

On Dr. King's return from furlough, Surgeon-Major Henry Thomson, acting as Sanitary Commissioner, Madras, will take up the duties of Durbar Physician to the Maharaja of Travancore, in succession to Surgeon-Lieutenant-Colonel Esmonde White, whose period of service in that appointment has expired.

A Parsee wrestling-master laid information against Dr. Babadarjee of Bombay charging him with offering indignities to the body of his child, by exposing it to view at the hospital in a glass bottle in spirits of wine. The Magistrate consented to call on the accused to show cause why a process should not issue.

A proposal has been made to Government by a powerful syndicate in London to make a permanent railway bridge over the Hooghly and to connect the railway lines of Howrah and Sealdah to a large central Station in Calcutta. For good or evil this gigantic proposal needs consideration from a sanitary point of view.

In spite of "make-belief" to the contrary, "the Risley-Plague" of Calcutta which so accommodatingly and reverently *observes* the Sabbath, will, it is surmised, by those who know it, obligingly go into a state of somnolence in the winter months out of respect for the Viceroy's presence in the metropolis.

It is understood that it has been practically decided to extend the Simla drainage system by the construction of a sewer which shall serve the northern portion of the station, including the houses at the back of Jakko, Elysium Hill, Kaithu, and the Chowra Maidan district, in the manner already adopted on the southern slope.

The Government of India has sanctioned the grant to Lady Superintendents of the Indian Nursing Service of a deputation allowance of Rs. 5 per day, for the period they are absent from their stations on inspection tours, in lieu of the present detention allowance.

The *New York Medical Record*, writes —"It is said that uneducated and unqualified persons have as much right to practice medicine in India as fully qualified practitioners, and that in the present condition of that country it is impossible to prevent the people from employing the uneducated native practitioners."

Ether spray for hypertrophied spleen has proved extremely efficacious in relieving the respiration, the congestion of the organ and the pain, in twelve new observations of malarial hypertrophied spleen. The left half of the abdomen was sprayed twice a day with 25 to 30 grams ether, and in about a month the spleen was reduced to normal size.

A son of Mr. Jordan, chemist, Pontardawe, recently qualified as a chemist, and a telegram announcing the fact reached the proud father in the following terms :—

Sorrow vanquished ;
Labour ended,
Jordan passed.

The case against Dr. Sheppard of Darjiling, the pseudo-Russian General, was concluded on the 18th instant before the Deputy Commissioner of Darjiling. Dr. Sheppard was convicted on three charges of cheating, and sentenced to twelve months' rigorous imprisonment. He is called "doctor" but has no diploma of any kind

Military Assistant Surgeon [illegible], who has been temporary duty, has been reappointed Medical Officer to the [illegible]ed to the Eastern Bengal State Railway at [illegible], and Military Assistant Surgeon G. E. O. Neal will be Medical Officer attached to the same Railway at Sealdah.

It is understood that Surgeon-Colonel Stephen, Sanitary Commissioner, Assam, succeeds Surgeon-Colonel Raye, as Inspector-General of Civil Hospitals, Punjab, the latter going next month on eight months' furlough, prior to retirement.

A writer in the *Medical Press* says : "It is computed that there are 26,500,000,000,000 of cells in the adult human body, of which 4,000,000,000,000, are fixed, and 22,500,000,000,000 vagrant." The cells of the nervous system are said to number 3,000,000,000.

A man dropped his wig in the street, and a boy who was following close behind the loser picked it up and handed it to him. "Thanks, my boy," said the owner of the wig. "You are the first genuine hair-restorer I have ever seen."—

Some eminent medical men now declare that there is no such disease as hydrophobia. They claim that it is nothing more or less than a nervous terror which takes possession of the patient, who in reality dies of pure fright.

Acetic acid injected by means of a glass syringe into all cracks and crannies of beds infested with bugs is said to be an excellent remedy against these troublesome pests, as a drop of acetic acid infallibly kills a whole nest of them.

In the Crimean War 63·5 per cent. of the amputations proved fatal. Antiseptic surgery has reduced the fatality, so that in our Civil War only 43.1 per cent. proved fatal, and in the year 1890 the mortality had been reduced to 6.9 per cent.

The warrant reconstituting the Army Medical Staff has been published in England. It is understood that the Government of India has been asked to submit proposals with regard to the Indian Medical Staff.

Dr. Cook, the Health Officer, is to be relieved of his plague duties in order that he may devote his attention specially to the conservancy of the city. Dr. Bannerman, who has had great plague experience, replaces Dr. Cook for the present.

Dr. Vanderstraaten, junior will bring forward, at the next meeting of the Ceylon branch of the British Medical Association, an important motion urging the adoption of a scheme of Medical Registration in Ceylon.

The Catholic authorities at Rome have rendered a decision forbidding the practise of artificial impregnation, devised by Sims. The reasons for this prohibition are not stated in the decree.

Mr. William Gabriel Rockwood, M.D., (Madras), has been appointed an Unofficial Member of the Legislative Council of the Island of Ceylon.

Surgeon-Captain D. M. Moir, M.B., Editor, *Indian Medical Gazette* has just married a handsome Armenian lady of Calcutta.

The Government of Western Australia has passed a law prohibiting persons suffering from contagious diseases from entering the Colony.

Surgeon-Captain O'M. Mois, Pres. Resident Surgeon, Presidency General Hospital, Calcutta, is allowed furlough for a year, and Surgeon-Captain T. O'Kinealy is appointed to act in his place.

Drainage Tubes are used by Delagenière, made of nickel perforated throughout, with a wide rim, to prevent its escaping into the wound. A cotton wick inside absorbs the fluid like the wick of a lamp, and ensures perfect drainage.

It is understood that a Royal Warrant, dealing with the Indian Medical Service, on lines similar to those followed in the case of the Army Medical Staff, will shortly be issued at home.

Surgn.-Lieut.-Col. C. H. Joubert continues to act as Secretary to the Calcutta Martiniere and as general practitioner in the city and suburbs.

The word "microbe" was first introduced to the scientific world by M. Sedillot in a communication presented to the Academie des Science of Paris, in 1878.

Dr. V. L Watts, Civil Medical Officer, Bogra, is appointed to be Civil Medical Officer, Bankura, but will continue to act in his present appointment.

In France, if a person dies with more debts than can be covered by his estate, the doctor's bill has precedence over all over other claims.

Brigade-Surgeon-Lieutenant-Colonel Preonath Mookerjee, Civil Surgeon of Sagaing, has died from a carbuncle, after a lingering illness. He was very popular.

Surgeon-Colonel H. S. M. Price, Army Medical Staff, has been appointed Honorary Surgeon to the Viceroy, *vice* Surgeon-Colonel C. Atkins, vacated.

Dr. J. L. Hendley, Civil Medical Officer, Bankura, is appointed to be Civil Medical Officer, Puri, vice Surgeon-Lieutenant-Colonel K. P. Gupta, retired.

Cases reported as *true plague* in Calcutta continue to be eliminated as being other than plague. Hence a Nathan must arise and declare the David of Bengal to have erred.

We learn that Miss A. Church, M.B., is likely to be appointed later on in charge of the new Victoria Dufferin Hospital in Amherst Street, Calcutta.

Surgeon-Lieutenant-Colonel Backhouse, Indian Medical Service, is permitted to retire

Dr. Budin has been appointed as Tarnier's successor to the chair of Obstetrics in Paris.

Dr. Arnold Caddy of Calcutta has gone home on a brief holiday.

Dr. Charles Banks has begun private medical practice in Calcutta.

Surgeon-Major D. M. Crawford is doing excellent work in the South Suburban Hospital, Calcutta.

We regret to announce the death of Surgeon-Lieutenant H. H. Miles, I.S.M.D., of Bright's disease on the 20th July.

The Medical Register and Directory of the Indian Empire is now ready and is issuing to all registered subscribers. No time should be lost to secure copies.

Current Medical Literature.

MEDICINE.

Alcohol as a causative factor in disease of the Central nervous system.

In the general outline of the facts concerning alcohol as a factor in central nerve disease, Dr. T. D. Crothers, points out (1) That alcohol is a poison of the narcotic class which acting on the body psychologically, physiologically and pathologically is, next to syphilis the most frequent cause of diseases of the brain and has so profoundly distinctive an action on waste and repair that it predisposes to many diseases by becoming a literal paralysis and disunion that enfeebles all the powers of life and lowers their power of resistance. (2) It seems to have a special toxic action on the peripheral nerves stimulating them at first then accentuating them, then over-exciting them after which they are depressed, their activity perverted and the power of nutrition from nutrition destroyed. (3) The apparent recovery from the narcotism of single-drunk paroxysm is never real as the convulsive discharge of nerve energy, through its influence, permanently deranges the dynamic equilibrium of the nerve centres and its repetition now only fixes this condition, but also so lessens the power of resistance to disease that local inflammations from infections, injuries, strains or drains can *not* be overcome and death closes the chapter of woes. (4) Alcohol disturbing the functional processes and diminishing the sensory activities induces a general psychical paralysis beginning with the ego, blunting or obscuring the moral and ethical senses, inducing insomnia, melancholy suspicion and various delusions, changing the emotional states and extending to all parts of the body ends in muscular depression and mental enfeeblement. (5) Periodic drinking is a convulsive disease like epilepsy and belongs to the same family group. (6) Alcohol both releases and concentrates nerve energy. The increased and diminished vascular actions with diminished sensory power point to profound disturbance of the dynamic forces of the brain in which there is a continuous gathering and discharge of nerve energy. This is increased, retarded and perverted by drugs, food and environments and the change of this nerve energy is seen in the functional disturbances of the body which are very prominent in early and in late life. —*Jour. Amer. Med. Assoc.*

Blood Reaction in Diabetes.

Loewy records some further investigations of Brehmer's reaction in the blood of diabetic patients. The original method of obtaining the reaction was to stain a film of blood in two solutions, each consisting of a mixture of 0·5 per cent. solution of eosin with a saturated solution of methylene blue, the one contained excess of the former, the other excess of the latter stain. After passing the film through these two mixtures successively, Brehmer found that in normal blood the red corpuscles were stained deep brown, whereas in diabetic blood they are left pale yellow or greenish yellow. Loewy, in his experiments, used the simpler modification which has lately been suggested. The blood is stained two minutes in 2 per cent. methylene blue, and then 10 seconds 0.125 per cent. eosin solution. Keeping strictly to the technique described by Brehmer in this method, Loewy found that in every case of diabetes in which the amount of sugar in the urine was more than 2 per cent., the blood gave the characteristic reaction. In one case, where dieting had already caused the sugar to disappear, the reaction was still obtained in the blood. The failure of several observers to obtain the reaction in diabetes is probably due to their not

[illegible]

in [illegible] cured by trying it in [illegible] have found the reaction. The [illegible] for the reaction; 5 c.cm of blood [illegible] from a vein of a diabetic patient, and separated from the plasma by a centrifuge; the corpuscles were then washed with normal salt solution until the washings showed no trace of sugar; the typical BREMER reaction was then obtained with the blood corpuscles. It was also found that normal blood treated with a weak acid gave the reaction.—*Brit. Med. Jour.*

Extract of Suprarenals as a Stimulant in Dangerous Chloroform Narcosis.

FORMING the subject of a series of observations made upon dogs by Dr. F. A. MAGNKOVSKY who concludes that compared with the procedures of SCHULLER, LABORDE and KONIG MAAS, intravenous injections of even 15 to 30 grains of a 1 per cent. solution of suprarenal extract are (1) preferable on account of its more rapid action and (2) capability of saving the life of extremely chloroform narcosed dogs by (3) exercising a marked influence upon the respiration, the blood pressure and the tone of the heart muscles but (4) it is wise to keep a freshly prepared and sterihoid solution of suprarenal extract ready to hand to controvert any sudden collapse during chloroform narcosis and (5) but the best results (in cases of imminent death due to chloroform are obtained by combining the intravenous injections of suprarenal extract with massage of the cardiac region and the subcutaneous injection of physiological salt solution.—*N. Y. Med. Jour.*

Causes of Subnormal Temperature.

DR. JANSSEN sums up the causes of this condition as follows: 1. After the direct withdrawal of heat from the body, as in cases of exposure of unconscious or drunken persons in a very cold atmosphere, or after immersion in very cold water. 2. After the lost of great quantities of fluids from the body, as in severe diarrhœa, enteritis, cholera, or profuse hæmorrhage. 3. In conditions of cachexia and inanition such as cancer of various parts of the alimentary canal, severe forms of diabetes, pernicious anæmia; during convalescence from febrile affections; and in many chronic mental diseases. 4. In grave circulatory disturbances, as in cardiac failure. 5. In various diseases of the central nervous system, in tuberculous meningitis, at the onset of cerebral hæmorrhage and embolism, in some cases of brain tumor, and in general paralysis of the insane. 6. After irritation of sensory nerves, as in intestinal strangulation, in renal and gall-stone colic, internal perforation of the intestines, ect., and after surgical operations. 7. In skin affections involving large areas, such as scleroderma and extensive burns. 8. After fevers, when the temperature may long remain subnormal, or in the course of certain fevers, as in pyæmia. 9. In cases of poisoning by phosphorus, atropine, morphine, carbolic acid, and in alcoholic intoxication; also in the auto-intoxication of uræmia and in diabetic coma. In some healthy persons subnormal temperatures are occasionally observed without any apparent cause.—*N. Y. Med. Rev.*

Cure of Werlhof's Purpura Hæmorrhagica by Crude Bone Marrow.

THE *Bull. Gén. de Thérap.*, notes a case recorded by Voinitch and epitomised in *Vratch*. A girl, eight years old, was suddenly attacked by fever (38 to 39 C.), anæmia, and articular pains. The painful joints became covered with purpuric lesions, which extended to the internal aspect of the lower extremities, and the dorsal aspect of the elbow and carpal joints. Then fœtid bloody diarrhœa set in; the belly was distended and the seat of severe colic.

Calomel, quinine, and antipyrin were given; ice was applied to the abdomen and astringent injections and ergot and salicylate of soda were administered. As the gravity of the case increased, calf bone marrow was administered to the extent of two tablespoonfuls daily.

Three days after a steady improvement set in.

The marrow was prepared by trituration with boiled water, cooled to ordinary temperature, filtered, and some milk added to make it more agreeable.

[illegible]

[illegible] in [illegible]

THE previous practice on a [illegible] is essential to correct [illegible] Dr. W. Wood who [illegible] following [illegible] (1). Lift the epiglottis against the tongue by [illegible] left fore-finger, protected by strapping [illegible] and drawing it forward between the [illegible]. (2). Let the handle of the introducer, touch the chest when the tube is put into the mouth then raise the handle till the tube touches the left fore-finger, which is then slipped behind the tube and the handle raised to a right angle while the tube passes into the larynx. (3). Place finger on top of the tube as the obturator is withdrawn. (4). Do not let the child sit up and if very young, stiffen the elbows with cardboard and strapping. (5). Feed with the head lying back over the pillow. (6). The retention of the silk in the tube, is most necessary so that the tube may be quickly removed should it become blocked with membrane or in case of extreme dyspnœa. (7). If the silk has been bitten through invert the child and express the tube by pressure from outside. (8). Remove tube in two or three days and re-intubate if necessary. (9). The steam tent is useful in dyspnœa after removing the tube.—*Amer. Gyn. and Obstet. Jour.*

Successful Ovariotomy in a child four Months old.

A breast-fed girl, aged 4 months only was placed under the care of Dr. CARR for an enormously distended and very tense abdomen which measuring 20.5 inches in girth (at a point 2 inches above the umbilicus) and 10.5 inches from symphysis pubis to xiphi-sternum tip was dull to percussion, but gave a well-marked thrill. The urine was normal and legs not œdematous. Abdominal section was performed and as soon as the peritoneal cavity was opened a small quantity of fluid escaped and a smooth shiny bluish colored ovarian cyst, was seen with numerous blood vessels ramifying over its thick walls. To enable the circulation to adopt itself to the altered abdominal condition 40 oz. of a clear yellow fluid were slowly drawn off from the cyst which was then removed from the abdomen, emptied of its remaining 19 oz of fluid and seperated from its pedicle which was transfixed and ligated with file silk, and after division dropped back into the abdomen. The child was a little collapsed after the operation, but soon rallied and made an uneventful recovery in 14 days.—*B.M.J.*

Treatment of Sarcoma and Carcinoma by Injections of mixed Toxins.

IN a paper recently read before the Harveian Society of London, Dr. MANSELL MOULLIN mentioned that many sarcomata that were opposite to other treatment and had been given up as hopeless, even after repeated operations, had absolutely and entirely disappeared when injected with Dr. COLEY'S mixed toxins (1 minim gradually raised to 8 minims for each hypoderm) under which lupus, keloid, syphilitic deposits, carcinomata and other such growths have also disappeared rapidly and permanently its matter whether the toxins were injected directly into the growths or into some distant part of the body. The effect is most striking in rapidly increasing sarcomata, slowly growing ones appear to have much more resistance. The toxins are useless unless the cultures are taken from a virulent case of erysipelas or are made virulent by passing the streptococcus through rabbits. They cure sarcomata not by starting inflammations but by [illegible] an intensely rapid form of fatty degeneration (and absorption), something like that of yellow atrophy of the liver. If inflammation and

[illegible] slough[illegible] of the [illegible] must be continued [illegible] so small that [illegible] with considerable [illegible] and there is always danger of the [illegible] or sloughing sore [illegible] the growth.—[illegible]

Treatment of Fractures.

Dr. W. L. [illegible], in an article on the treatment of fractures, says:—

1. Unless a fragment is threatening to break through the skin, the fracture should never be reduced except by a physician, and then only when apparatus is at hand to keep the parts in permanent apposition.

2. Men carrying an injured person should not keep step, as the jar to the wounded part is much greater.

3. Strychnia for shock, morphia for pain, but no alcohol.

4. Always give anæsthetics for reduction of a simple fracture. It is better and easier to reduce and set compound fractures without anæsthesia.

5. It is very rarely necessary to make a patient go through the double agony of temporary and permanent setting of the broken bones.

6. In simple fracture gentle rubbing of the ends will assist in getting rid of shreds of tissue which invariably are caught there.

7. Now-a-days a surgeon will rarely be satisfied that a bone is properly set, until verified by the X-rays.

8. Plastic splints, preferably plaster of Paris, are surely the best apparatus when they can be applied.

9. Ambulant treatment is coming more into vogue. No simple fractures require constant confinement to bed, except of the innominata and upper third of the femur.

10. It is not necessary and sometimes very harmful to wait for swelling to disappear before putting on a permanent dressing.

11. A well-applied splint with good apposition of fragments should not be removed too early. It is not necessary to apply massage early in ordinary cases.

12. Proper time for massage is two or three weeks after fracture of upper extremities and four or five weeks for lower extremities—if the bones are slow to unite firmly.—*Med. Brief.*

Croupous Rhinitis.

J. T. Cambell who has collected 120 cases of this disease, finds that in 80, bacteriological examinations were made with the demonstration of Klebs-Loeffler bacilli in 65. This would seem to be a rare disorder, but this is extremely doubtful, for the abstracter has seen two cases at least which he has not reported. The indications for treatment are only those which become obvious after the bacteriological examination, whether the antitoxine for diphtheria or streptococci should be used, antiseptics and tonics not being neglected.—*Treatment.*

Ozæna and its Relation to Sinus disease.

Ozæna and its Relation to Sinus Disease was discussed by T. J. Harris at the New York Academy of Medicine and he says that in only five cases of all the ozænas under his care was there any accessory sinus disease. From this he believed it right to consider ozæna as a symptom only, with no constant cause; that genuine atrophy in all probability does exist; focal disease is a common and important cause. At the same time Bosworth criticised this supposed connection most severely, saying there was as much connection between cirrhosis of the liver and atrophic rhinitis as between it and sinus disease.—*Laryngoscope.*

[illegible] peri[illegible] enlargement [illegible] of which is [illegible] ty and former [illegible] It is not associated with hysteria and Dr. [illegible] who has had one case to deal with and microscopically and otherwise examined the pathological specimens of two other cases reported by Dr. Griffiths and [illegible] to the London Obstetrical Society, finds that it differs from pseudocyesis in the existance of definite changes in the uterus and from pregnancy either topic or ectopic in that it was the development within the uterus, in the absence of intra-or extra-uterine gestation, of a membrane having the essential characters of the decidua of pregnancy (though formed entirely from maternal structures) and accompanied by the signs of early pregnancy; and its separation and expulsion from the uterus with hæmorrhage so simulated abortion that diagnosis was impossible until after the discharge of the cast which was devoid of chorodate tissues and certainly was not an ovum.

Two explanations of this condition were possible:—(1) that an ovum was actually fertilised, but perishing at a very early period left no trace of its presence though the genetic reaction in the uterus and in the general organisms progressed as in pregnancy, and (2) that some stimulus other than the presence of a fertilised ovum in the genital tract might lead to the formation within the uterus of a complete decidua and might hold the menstrual functions in abeyance. Provisionally, he adopted the first explanation.—*Lancet.*

Treatment of Puerperal Infections with Aromatic Essences.

A Spanish *confrère* has been following this method of treatment with "surprising and immediate success." He states that a single thorough application should be followed by a fall in the temperature in a few hours and he has never observed any secondary effects. He uses turpentine or essence of bergamot, and was led to attempt the treatment by his success in treating infected ulcers and wounds with turpentine. The essence applied on a wad of cotton, inserted with curved forceps, and the intra-uterine surface painted with it, squeezing the essence well into the tissues, but never leaving it permanently. No speculum is required, although a preliminary vaginal irrigation is advisable. This treatment has been applied to all cases at the Maternity and in his practice for over a year, with invariable success. One application a day is sufficient, except in case of gangrene or diphtheritic patches. He begs those who wish to observe the results of the treatment to apply it first in cases of infection of the vulva or entrance to the vagina, when they will see the aspect of the ulcerations alter before their eyes. Wherever applied the fall in the temperature is constant.—E. Commenas.—*N.Y.M.J.*

Action of the Vaginal Plug in Accidental Hæmorrhage.

Is similar to that of a tourniquet in controlling the circulation of the uterine arteries and may safely be relied on in the majority of cases not amenable to other treatment. When properly applied the vaginal tampon is not only the most suitable mode of stopping the worst forms of accidental hæmorrhage, but it also dilates the cervix by exerting peripheral force on that structure and exciting uterine contractions not as the consequence alone of cervical dilatation, but chiefly by the accumulation in the uterus of carbonic acid

impregnated by the tampon. According to E. Hastings, Twenty, Eyre, F.R.C.P.I. the best material to use is sterilised cotton wool treated with a weak antiseptic solution and the proper way to apply the tampon is:—(1) Throw many pledgets of cotton wool as large as a closed fist into a basin containing some weak antiseptic solution and let them soak while, (2) the patient is brought to the edge of the bed, (3) placed on her left side, (4) her vagina and vulva rendered aseptic and (5) her bladder emptied. She is now ready for the packing which is done by taking, (6) the pieces of cotton wool—one by one—squeezed out to almost dryness and compressed into as small a compass as possible and so inserting them without the aid of a speculum—that the cervix is surrounded by pledgets before the os is covered. Each piece is packed as tight as possible and (7) then the vagina is filled with cotton wool pledgets to its utmost capacity down to the urethra, (8) a diaper is placed between the thighs and a tight abdominal binder completes the operation.—*Brit. Med. Jour.*

Diagnostic Value of the Abdominal Reflexes in Gynecology.

Bodon believes from examination of 800 cases in the Budapest Hospital, that the condition of the abdominal reflexes may be of use to the gynecologist, as well as to the neurologist. To be of any diagnostic value, the reflexes must be distinctly weaker on one side than on the other, or completely absent on one side as in many persons presumeably healthy they cannot be elicited. Bodon found that the reflexes were most easily brought out in young nulliparæ, with thin abdominal walls. He examined the reflexes in several cases of pelvic cellulitis and peritonitis, with a view of differentiating them, and although he admits the almost constant combination of the two conditions, yet he believes the results obtained might assist in the prognosis and treatment to be applied.

In pelvic cellulitis he found the abdominal reflexes unaffected; whilst in pelvic peritonitis they were lost or greatly weakened. In bringing out the reflexes in very acute cases, it was found to produce sudden pain on the affected side. This Bodon attributes to slight imperceptible muscular contractions, sufficient to cause slight displacement of the peritoneum with consequent pain

Bodon raises the question of the existence of a reflex in the female, corresponding to the cremasteric reflex. Reference is made to the work of Gingel, who regards the inguinal reflex as equivalent to the cremasteric reflex. Bodon bases his observations from the cremaster muscle in the male corresponding to the round ligament in the female, both receiving fibres from the internal oblique muscle; a forward movement of the uterus towards the contracting round ligament corresponding to the upward movement of the testicle in the cremasteric reflex.

In order, if possible, to bring this out, Bodon placed one finger against the anterior fornix, so to as note any movement of the fundus, and with the other hand irritated the skin on the inner surface of the thigh—result negative. He then introduced a sound into the uterus, and irritated the skin of both thighs at the same time, to ascertain any forward movement of the uterus. The result was, that the sound moved in a backward direction; showing, Bodon thinks, that the fundus had jerked forwards. He regards the subject worth further observation.—*Edin. Med. Jour.*

PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

Gastric Secretion.

Pernet notes that the whole process of gastric secretion which (1) beginning five to six minutes after the commencement of a meal and gradually weakening down after lasting for four to five hours, is (2) purely reflex from beginning to end, (3) and most of the secretory fibres reach the glands by the vagus, (4) whose fibres must be intact for a fictitious meal to cause a really active secretion. (5) That the influence of food on the pharyngeal mucous membrane is psychic, not mechanical and that it varies with the kind of food ingested, was proved by Ganotzki, Lobassoff and others adopting Pawlow and Nencki's modification of Heidenhain's mode of *unknown* to the animal passing certain foods through an artificial gastric fistula, (6) where they remained undigested unless a psychic influence was brought to bear. (7) Gastric juice, which appears to be of two sorts, the (8) pneumogastric and (9) the sans-pneumogastric secretion, is (10) not of uniform composition in the same animal and as (11) the mucosa adapts itself to the food present, since (12) each kind of food requires a special kind of secretion differing in quantity, quality, acidity, activity and length of latent period, the (13) vagus contains fibres as well for the mucous as for the gastric juice glands and foods may be divided into (14) those which require the psychic influence of the appetite for their digestion, and (15) those that can cause secretion of gastric juice without it, but (16) in the latter case secretion occurs later, lasts longer and is lower in quantity, acidity and activity than the psychic juice.—*Brit. Med. Jour.*

Normal Size and Location of Stomach.

A. L. Benedict, A.M., M.D., Professor of Physiology and Digestive Diseases, Dental Department, University of Buffalo, calls attention to the fact, that it is difficult to find exact statements in text books as to the *normal* size and location of the stomach; and it is by no means uncommon to find physicians making the diagnosis of gastric dilatation who are not able to state either just how large the stomach is, or how large it should be. Speaking from some six or seven hundred examinations by auscultatory percussion of normal and abnormal stomachs—accurate records of about 200 have been preserved—it may be stated that the area of the normal, empty, adult stomach, is an ellipse, whose major axis is inclined at about 45 from the horizontal, whose lowest point is about an inch above the umbilicus, and half way between the middle and axillary lines, and whose right curve does not pass appreciably to the right of the median line, though the stomach itself does so. The area of the normal, full stomach reaches quite to, or perhaps half an inch to the right of the median line, and the lowest point is not less than half an inch above the umbilical equator Large, fleshy women often have a descent of the abdominal wall, so that the stomach, though by no means small, is two or three inches above the umbilicus In children, the stomach is relatively larger than in adults, being absolutely of about the same size after the age of fourteen. Thus the adolescent stomach is not more than a quarter of an inch above the umbilical equator, and the stomach of a child of two or three years reaches fully to this line.—*Virginia Semi-Monthly.*

Beginnings of Mental Life.

This was the title of a brilliant address delivered by professor Donath at the annual meeting of the Budapest Hospital Association. He started with an interesting description of the faculties of some of the lower forms of animal life and concluded that mental life is an evoluted form of cell activity.

He then delivered the address of the session at the late annual meeting of the British Medical Association at Montreal, in which it was stated that mental disorders are to be attributed to starvism Professor DONATH is of opinion that the principal cause of the spread of mental disorders in the present day is first to be sought in the very hard struggle for life and secondly, but in no lesser degree, to the spread of syphilis and alcoholism. It is very interesting to note that he tried to prove that mental faculties taken grossly are the same in the savage as in the civilised man and that it is principally the absence of mental exercise and the different mode of living which explain the lower mental standard of the former —*Lancet.*

Venom J. Naja Haje.

BETTER known as Cleopatra's asp is so fatal that in Ceylon alone some 20,000 persons annually succumb to it. ARMSTRONG, CALMETTE, REICHARDT, WALL, WEIR MITCHELL and others who tested it declare that the venom is chemically identical with the poison of Naja Tripudians and when dried appears as transparent scales easily soluble in water, very slightly so in alcohol, chloroform or ether and its aqueous solution which is neutral to litmus paper, has an unpleasant odor, but GRARIANI (*Rif. Med*) who made a physiological study of it finds that it has a considerable affinity for the kidneys and liver, and that extremely minute doses proved rapidly fatal to guinea pigs, who a few seconds after injection became paralysed in the hind limbs, foamed at the mouth, made violent attempts to vomit, respiratory embarassment soon follows together with vomiting and abundant secretion of frothy saliva and finally death from asphyxia. Immediate autopsy discloses heart still feebly beating other lungs pallid and the blood in the organs very dark. The brain and cord with their coverings are anæmic and there are effusions into the muscular tissues while the red blood corpuscles are in great measure broken down, but the central nervous system shows no particular changes The kidneys are very hyperæmic with marked degeneration of the epithelium lining the glomerlui and convoluted tubes The liver also is hyperæmic with partial necrosis of its cells —*Brst Med Jour*

Biology of the Tubercle Bacillus.

MARPMANN claims to have opened up a new point of view in bacteriological pathology by his researches on the growth of the tubercle bacillus This has long been known to secrete a cellulose capsule, which is a characteristic of aerobic microbes, whereas those which are an-aerobic are distinguished by the formation of volatile gases such as marsh gas, sulphuretted hydrogen, phosphoreed hydrogen, and ammonia. The author finds that tubercle bacilli grow readily on a new medium, consisting of crude lecithin rendered germ free by repeated warming to 50 C. At first only traces of volatile gases are given off, but after five or six days, if the access of air is prevented, the presence of phosphoretted hydrogen can be demonstrated by the contained gases blackening paper impregnated with silver but not lead. MARPMANN concludes that the tubercle bacillus is capably anaerobic, and can give rise to reduction as well as oxidation products The formation of phosphoretted hydrogen is much more marked in the case of cholera bacillus, and it is suggested that the symptoms of cholera intoxication may be due to that gas. Similarly it is possible that this and other gases may be the causes of the symptoms of other bacterial infections, if this is the cause, treatment should aim at neutralising them as well as at increasing the resistance of the tissues to them. It is this new suggestion which the author considers may lead to most important results.—*Brit. Med. Jour.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Asepsis of Towns and Dwellings,

AT the request of the Organising Committee of the International Congress of Hygiene and Demography held at Buda-Pesth, 1894, Professor CORFIELD prepared a series of resolutions relating to the sanitary conditions of towns and dwellings. These resolutions were submitted to a special joint meeting of three of the Sections of the Congress, and were the subject of a very animated debate. They were ultimately referred to an International Committee consisting of the following members: Professor CORFIELD, London (proposer); Dr. PISTOR, Berlin (seconder); HERR ANDREAS MEYER, Chief Engineer of Hamburg, M. G. BECHMANN, Ingenieur-en-Chef des Ponts et Chaussees, Paris; Professor FODOR Buda-Pesth, Mr. ARTHUR CATES, Architect, London; HERR BERGER, Chief Architect, Vienna; HERR LINDLEY, Engineer, Frankfort-on-Maine; and Dr A. J. MARTIN, Member of the Consultative Committee of Public Hygiene of France.

The resolutions were revised by this Committee and were submitted to the International Congress recently held at Madrid, where they were adopted as resolutions of the Congress They may be taken to represent the maximum amount of agreement possible at the present moment among sanitarians of different European countries. They are as follows:—

1 That the general health of the population is improved and the spread of diseases prevented in town and dwellings by the immediate removal of all foul matters, and by a copious supply of pure water.

2. That the paving of streets should be smooth, and as far as practicable impervious, to facilitate cleansing and also to prevent contamination of the subsoil

3. Special measures should be taken in the construction of houses to prevent the access of ground air and moisture to the floors and walls

4 House drains should be arranged so as to avoid stagnation of their contents, and to secure a rapid flow to the street sewer. They should be impervious to liquids and gases, freely and continuously ventilated, and provided with siphon traps to prevent the access of foul air to the houses.

5 The public sewers should be so constructed as to ensure the rapid and uninterrupted flow of the sewage to their outlets They should always be freely ventilated.

6. The streets should be as wide as possible in proportion to the height of the houses, this proportion should be fixed in each locality, regard being had to local circumstances and to climate, Every inhabited building should be well-lighted throughout its whole depth, and arranged so as to have an access of air from at least two sides.

7. Special regulations should be made in each locality by the public authorities with the view of enforcing the practical application of the principles herein laid down

Governments and municipalities should resolutely and energetically carry out the preceding recommendations, especially those concerning the healthiness of dwellings.—*Brit. Med Jour.*

Sterilised Water.

IT betrays an incomprehensible ignorance on the part of the public in respect alike of scientific and of industrial matters that tourists and others should imagine that when travelling in foreign countries or residing in India they can avoid the risk of infection with cholera or typhoid by restricting themselves to the so-called aerated and mineral waters, as if the addition of a few grains per gallon of carbonate of soda and the impregnation of a contaminated water

with carbonic dioxide could have any appreciable influence on the pathogenic microbes that may be present. PROF. BIZZOZERO, of Milan in an able and popularly-written pamphlet urges the boiling of all waters open to the least shade of suspicion as the only trustworthy and rational procedure. The addition of chemicals in quantities compatible with potability he shows to be utterly futile, while the great majority of filters are delusions, and even the few effective forms, as PASTEUR'S and the BERKEFELD, need attention; whereas boiling cannot fail to destroy every germ, whether pathogenic or innocent. He combats the prejudice against boiled water as a beverage, maintaining that the "taste" frequently complained of is really caused by the state of the kettle or other vessel in which it has been boiled, as it can scarcely be due to the escape of the CO_2 or dissolved air, of which water from wells of great depth often contains very little which is rapidly restored by exposure or by agitation. At any rate, the balance is so overwhelmingly in favour of the practice of boiling all water (and milk), of the purity of which one is not absolutely certain, that it should never be neglected save in the case of deep wells or water-works under unimpeachable management.—*Practitioner.*

Inference from removal of Ovaries.

IN some cases injuries are sustained which are of such a nature as will, in themselves, warrant an inference that they will permanently affect the injured person's health, or lessen his or her capacity to labor. But the United States circuit court of appeals declares, in Western Union Telegraph Company *vs.* MORRIS, that it can not say that the injuries inflicted by a surgical operation, which consisted in removing ovaries and Fallopian tubes, were of such a character that a jury was at liberty to infer therefrom that the health of the person upon whom the operation had been performed would be permanently affected, or that her capacity to labor would be thereby impaired. It is just as reasonable to suppose, in the absence of any evidence on the subject, continues the court, that she sustained no loss in either of these respects. On the other hand, the court holds that it was not reversible error to leave the jury to determine whether a telegraph company's failure to properly transmit a message summoning a physician was not the proximate cause of the plaintiff's being subsequently compelled to undergo such a surgical operation, when the physician testified that if he had reached the patient at the time he would have, but for the mistake, he believed that he could have rendered the subsequent surgical operation unnecessary.—*Jour. Amer. Med. Assoc*

Death from Cocaine.

DR. G. DANFORD THOMAS held an inquest at Paddington on 18th April, on the body of FLORENCE EMIN, the wife of Dr. M. EMIN, of 149 Ledbury Road, Bayswater, who died from the effects of poison self-administered. The deceased was occasionally very depressed, and eight months ago, she swallowed a quantity of laudanum from a phial she found in her husband's black bag, assigning no reason for doing so, but telling her husband immediately after the act. Antidotes were applied, and she soon recovered. On the day of her death she informed her husband that she was feeling ill, and producing a small bottle from her pocket (which she had obtained from her husband's bag, as in the previous case), said "I have taken cocaine; go for a doctor." Dr EMIN said deceased had apparently swallowed half an ounce of a solution of cocaine containing from 40 to 48 gr. of the alkaloid. He hurried off for a doctor, and on his return she was unconscious, and died in about a quarter of an hour. Dr. A. DAVIS, of Cronwall Road, Bayswater, who was called in, and had made an autopsy, stated that death was clearly due to cocaine-poisoning. The jury found a verdict of suicide while of unsound mind.—*Chem. and Drug.*

THERAPEUTICS AND PHARMACOLOGY.

Diphtheria and Rhododendron.

Dr. ROBERT T COCHRAN (*Calc. Jour. of Med.*) calls attention to a peculiar pathogenitic symptom of Rhododendron closely resembling a peculiar form of paralysis following that disease and Dr. HALE WHITE tells of how unilateral paralysis of the palate so attacked a man 21 days after a severe attack of diptheria that while drinking some tea he began to cough violently and within 10 minutes died. At the necropsy 1·5 ounce of tea was found in the bronchial tubes as the real cause of death.

Dr. RENE ST CROIX uses tincture of Rhododendron to combat the evils of diptheritic paralysis and veterinary Surgeon COLLING (*Field*) says that some two years back he had to deal with a flock of 150 sheep that were believed to have been poisoned by eating rhododendron leaves. Some 50 or 60 were put under treatment which resulted in the recovery of all but 9. Two of these dying immediately on having a dose of stimulant being given, a *post-mortem* was held which showed that the fluid administered had proceeded the wrong way, reaching the lungs instead of the stomach as these sheep had evidently lost all power of swallowing.—*Brit. Med. Jour.*

Some Therapeutic uses of Olive Oil.

AT the seventh annual meeting of the Association of Military Surgeons of the United States, Dr. M O. TERRY, Surgeon-General of the National Guard of this State, advocated the treatment of appendicitis with sweet oil. He said he had treated forty-five cases of appendicitis, only two requiring operation; and all recovered. His method is as follows: A cathartic is given at once, together with a "colon or high enema, fomentations with flaxseed poultices and applications of hot sweet oil, the prolonged use of sweet oil taken internally and a poultaceous diet." His choice of cathartic is castor oil one part, with sweet oil two parts. A high injection of one-half to one pint of sweet oil is given, followed by a soap suds enema Sweet oil is also given internally, a half ounce in a glass of hot water three times per day, This is continued as long as there is tenderness in the region of the appendix.—DR. O. M, TERRY in *Post Grad.*

Indications for and against the Use of Dubois.in.

AFTER an extensive trial of the sulphate of dubois, SKEEN finds that (1) in epilepsy it sometimes relieves and sometimes increases the excitement without lessening the number of spasms; but though (2) it gives excellent results in excitement due to hallucination and delusions and (3) forms an useful sedative in all forms of excitement in chronic insanity it is (4) positively dangerous in melancholia or acute mania and (5) should be limited to physically healthy persons; since (6) it produces reactional excitement and its continued use results in (7) a rapid loss of weight and (8) a tendency to syncope.—*Jour. of Mental Science.*

How to Administer Creosote.

IN order to obtain the best results from the use of creosote more attention should be paid to the method of administration. According to a writer in *La Med. Modern*, the best of all the numerous methods suggested is to give the drug by month in capsules, each one of which contains $\frac{1}{10}$ grain of pure creosote, emulsified with 1 grain each of cod-liver oil and balsam of tolu. In this manner the disagreeable taste and odor are avoided, while this emulsion is one of which all the ingredients exercise a favorable influence upon the respiratory tract and do not irritate the mucous membrane of the stomach. Many writers have at different times reported

[illegible] with the administration of this drug by inhalation, friction, introduction into the rectum, and by subcutaneous injection, but none of these methods have stood the test of experience.—*Med. News.*

Therapeutical Application of Curdled Milk.

In 1883, Dr. Paschayan was physician for the municipality of Palos, where he had occasion to observe the therapeutical effects of curdled milk in diseases of the digestive tract and in febrile affections. He noticed that the natives obtained good results with curdled milk in acute enteritis; the patients were often cured in three or four days without the employment of any other medication. It was likewise employed in typhoid fever as a cooling drink. Since that time the author has recommended curdled milk to patients affected with acute enteritis, dysentery, and acute and chronic gastritis. He has also administered it as a cooling drink in typhoid fever. The patients find it agreeable and easily digested; the diarrhœa ceases, the dyspepsia becomes less, and the general condition is improved.—*La Medecine Moderne.*

Injection for Gonorrhœa in Women.

Lutaud employs the following formula :—

Alum, Borax,	each ...	... 450 grains.
Quinine sulphate ..		... 15 grains.
Carbolic acid, Essence of thyme,	each	... 30 drops
Glycerin	...	... 3,000 grains

M. A tablespoonful, in a pint of warm water, to be used as a vaginal injection two or three times a day.—*Jour. de Med. de Paris.*

Powder for Difficult Dentition.

Dr. S. Santoir, of the Borough of Brooklyn, sends the following formula to the *New York Medical Journal*, and says that he has used it with great success for over twenty years in hospital private practice ,—

James' powder, Calomel,	each ...	1 grain
Sodium bicarbonate	...	12 grains
Dover's powder ...	...	2 grains
Sugar of milk ...	...	12 grains

M. Divide into twelve powders. To a child from six months to two years old a powder may be given every four or five hours, in syrup or in milk and water.

Palatable Emulsion of Castor Oil.

℞ Pulv. acaciæ ...	...	... ʒiv.
Ol. ricini	...	... ℥i.
Elix. saccharini	...	... m. xx.
Ol. amygdalæ amaræ	...	... m. i.
Ol. caryophylli	...	... m. ii.
Aq. dest. ...	q. s. ad.	... ℥ii.

M. Dissolve the gum in sufficient water, add the oil gradually, and finally the flavoring agents.—*Med. News.*

Boils.

℞ Acid. carbol	...	... gr. v.-x.
Ext. ergot	...	... ʒi.-ij.
Pulv. amyli	...	... ʒij.
Zinci oxidi	...	... ʒij.
Rosæ aquæ ung	...	... ʒviij.

M, S. Apply locally.

—L. Duncan Bulkley.

Multiple Warts.

Sublimed sulphur	...	... 2½ drams.
Glycerin ...	...	... 6 fluidrams.
Pure acetic acid	...	... 75 grains.

Mix.

To be well shaken, and applied to the affected parts daily until the excrescences are detached.

—M. Kaposi.

Correspondence.

GOVERNMENT DOCTORS AND PRIVATE PRACTICE.

I.

To the Editor, "Indian Medical Record."

Sir,—"The following article from the *Simla News*, the liberal organ of the summer capital of India, will be read with interest by all who peruse the *Record*.—

"The eleven non-official medical men of Mussoorie appear to have raised a spirit which will not readily be laid, when they memorialised the Government on the subject of curtailing the privileges of the civil surgeon and giving a fair field to the independent practitioner. That these pioneers in the first instance memorialised the wrong Government is immaterial; it was easy to rectify that mistake, and get on the right track according to Cocker. That they also in the first instance emphasised an argument that broke down under the emphasis is not merely immaterial, but a distinct advantage to the movement they inaugurated; because they have thereby drawn from the N.-W. P. and Oudh Government in rebutment such a categorical statement of the proper duties of the official surgeon of a station, as renders it self-evident that the efficient discharge of these is fully enough to occupy his time and energies, afford scope for this professional ambition, and honestly earn a liberal salary—and thus virtually places the Government in the witness box on behalf of the complainants.

The Mussoorie Eleven have not started a fresh ball. They have only given a powerful kick to a ball that was already rolling by its own weight. Government will be taken by surprise, no doubt, by this decided expression of dissatisfaction, both because things are to their liking as they now are, and also because it is characteristic of the bureaucratic mind to be eminently satisfied with everything that bears the credentials of *the Red Tape* and surprised when any one else objects. So most likely will the civil surgeon fraternity, who must also find the existing state of things immensely to their liking; for they also are bureaucratic, and have been apt to look upon their non-official brethren as only half-brothers at the best, and very often, as little better than poachers trespassing upon their legitimate preserve; and besides, they are human, though official, and can hardly be expected to see beyond their horizon. But among the increasing class of unofficial medical practitioners in India the sense of unfairness has been astir for a long time. Things as they are, have pressed hardly on individuals; and the Indian Medical Association by combining the individuals, has been quietly nursing the germ that has now rather suddenly sprouted into the Mussoorie Memorial. And the general public are in a state of more advanced preparation for a change than the other three elements of the problem are probably aware. Invidious comparisons *are* made of the civil surgeon with the private practitioner; complaints *are* rife that he has not time to go thoroughly into individual cases, and the question is asked why then is he so jealous of his independent colleague; and tales are told in confidential chat of needless suffering inflicted on helpless patients because the official surgeon must go to his tennis-match

on the dinner-party, or is otherwise happy, and there is no other clients of a doctor.

Now when you come to think of it, these four classes, who have just been shown to be interested in the question, comprise pretty well the whole community; which looks very much as if the Mussoorie Memorial concerned us all. And so it does. It would be a great and regrettable mistake if the lay public, who are the sum total of patients and patients' friends, turned away from the subject with the idea that it is merely a squabble among the doctors, who are proverbially prone to disagree, and that all they (the public) have to do with it is to leave the said doctors to fight it out and settle it among themselves, with the comfortable confidence that a paternal Government will step in to prevent their settling it after the fashion of the Kilkenny Cats, who fought till they had eaten each other up all but the tips of their tails, for of course we must have doctors of some sort. This being so, we shall be doing our readers a service if we offer them a concise explanation of what the question at issue really is, promising that we desire to state it fairly and impartially, but that necessary limits of space forbid our touching upon all the arguments adduced *pro* and *con*.

The Mussoorie Memorialists, then, backed by the Indian Medical Association, respectfully call the attention of Government to (*a*) the violation of their avowed policy, so stringently applied to the officers of all other Departments of the State, in the case of the Indian Medical Service; and (*b*) the hardship thereby inflicted (increasing naturally with the increase of the European population, and with the spread of education among the native population), *viz.*, that of the independent qualified medical profession in India. The Government policy in question which is approved and its extension recommended, is that which prohibits State-paid officials, responsible for important duties, from engaging in private remunerative occupation. It is admitted that exception in favour of the officers of the I. M. S. may have been justifiable, perhaps even necessary, a couple of generations ago; but it is pointed out that the conditions prevailing then have undergone important modification since. The hardship complained of is that, while qualified doctors, both Anglo-Indian and Native, are being trained in large numbers, and the social development of the large centres of population invites private professional enterprise, the independent medical practitioner finds himself confronted by unfair competition in the shape of the state-salaried official surgeon enjoying unlimited freedom of private practice. This unfair competition involves both remuneration—because these officials, receiving a salary proportionate to their rank in the service, and in the case of senior officers a very handsome salary, are in a position to "undersell" their less favoured colleagues in private practice; and also professional reputation and standing—because the same officials, being specially accredited by the fiat of their State appointment, enjoy an artifical prestige at the expense of their independent colleagues, who may nevertheless well be their equals, and conceivably even their superiors in academic qualification, practical experience, or professional skill. This in brief is the case for the independent members of the medical profession. On behalf of the public it is urged that medical officers, whose time and energies are already completely by their interestingly and importantly duties for which they receive their official complimental salary, cannot, by the operation of the common laws of time and space and of physical and mental endurance, which limit the activities of us all, be in a position to perform efficiently, in addition to these, the responsible duties of a more or less large private and family practice. In view of the facts it is respectfully submitted that the time has now arrived for withdrawing the privilege of private practice from state-paid doctors in large cities and hill stations and for thus throwing open a fair field and no favour to medical enterprise in India as elsewhere. This is proposed primarily in the interests of the independent medical profession and of the public but also partly in that of the, at present, greatly over-worked civil surgeon himself; and it is characteristic of the reasonableness and moderation of the proposed reform that it is stipulated, also in the combined interest of all three parties, that the civil surgeon should still retain the right of consultation with private practitioners in family and general practice.

On the other side, in behalf of the civil surgeon whose special privileges are directly attacked, will be urged all the arguments that always are urged in support of monopolies, vested interests, class privileges, *et hoc genus omne*, when the time comes to each in turn for re-adjustment; and they will be answered now as they have been answered over and over again, ever since the days began for the overhauling of these venerable institutions. In behalf of the also highly privileged class of State officials non-medical, for whose particular benefit the civil surgeon is so liberally endowed, it is argued loudly that they and their families have pre-emptive right to the very best medical attendance that can be provided for them gratis, or nearly gratis, and that if the door were opened to professional Goths and Vandals in the persons of independent practitioners, this enviable privilege would be lost to them. Apart from the protean plea for class-privilege which re-appears in this argument, it is intrinsically funny in its naive taking for granted that the civil surgeon always and everywhere is the very best man—he and nobody—else, and not much less so in its "convenient dismemberment" that even the very best man is apt to be just a little better for being handed over to the wholesome discipline of competition. The proverbial plain man will be inclined shrewdly to suspect that the best men are most likely to come to the top when no one is either held down or propped up by artificial means.

Last of all, but by no means least, what is to be said for the Government to whose lot it must ultimately fall to devise means for rectifying the abuse, doing justice all round, and satisfying all complaints, and whose hands are already so full? Fair is fair all round; and honesty compels the admission that the settlement will involve some practical difficulties. The withdrawal of permission for private practice from a certain number of civil surgeons, and these as a rule the senior and most capable and experienced men, will certainly evoke the outcry that Government has broken faith with medical officers who entered the service on the understanding that certain plums were to be had. The abolition of the large Civil Surgeoncies, which has been suggested as an alternative

[illegible] at the scope of [illegible] will also [illegible] officials [illegible], who [illegible] that they would [illegible] fees; [illegible], in these [illegible] complicated [illegible] for a short [illegible] in the [illegible] might happen to coincide with severe illness [illegible] and a heavy doctor's bill. That there will be difficulties in rectifying the injustice is undeniable, but with a good will and long heads to the work they will not be insurmountable; though they may not improbably be made the excuse for postponing the matter and meanwhile the grievance is a real one and likely to grow.

The Mussoorie Eleven have played a bold game; but the time is ripe for their stroke, and the ball they have set rolling will not stop short of the goal, and all lovers of fair play and opponents of privilege and monopoly and class legislation will shout, "Go it Mussoorie and the I. M. A.!"

Yours, &c. J. M.

Simla, *24th July 1898.*

II.

To the Editor, "Indian Medical Record."

Sir,—The following correspondence article from the *Morning Post* will interest readers of the *Record* :—

"A Self-aided Mussoorie Practitioner" writes :—

"Allow me to thank you for your able and masterful handling of the State-aided medical practitioner question in your article of the 11th instant. Let me assure you that when we want a liberal opinion we do not look to your contemporary of Allahabad for it. You have so clearly demonstrated that it is all favour for the official and all discouragement for the non-official, that the argument advanced by your contemporary of "fair field and no favour" is delirious nonsense. In fact, it is we, the non-officials, who are the claimants for a fair field. Permit me to enlarge on this point. The Civil Surgeon starts his private practice in a station with a salary of Rs. 1,000 a month derived from our taxes, with all the official backing possible, to wit ; he has a military medical title as a prefix which is emblazoned in large letters on his sign board ; he has another official title as an affix, he has all the powers of an Health Officer, Factory Surgeon, Police Surgeon, and Vaccination Superintendent. He is also in some places Superintendent of a Jail. In the latter capacity it is especially injurious to the welfare of the State, when it permits him to engage in private practice. Supposing a relation of a convict is desirous of pleasing the Superintendent, so that some punishment of his imprisoned father or brother may be relaxed. He sends for the Civil Surgeon on some slight pretext. A great number of our official brethren are strong enough to resist this temptation, and will in all probability refuse to attend this relation, but there are some weaker ones also, in whose path it was cruel and iniquitous to place such an inducement of evil. It is not necessary to dwell on this point further. Be it said to the honor of my profession, both official and non-official, that the weaker ones are remarkably few. When the Post of Health Officer is now advertised in India the condition of "no practice allowed" is invariably attached to it. The Civil Surgeon is, however, ex-officio Health Officer of his station. We all know, and many honest Civil Surgeons will acknowledge that they have not devoted half-an-hour a day to this portion of their duty, until the advent of the plague. I will now take my [illegible], the practising Civil Surgeon as Health Officer, and see how he is liable to abuse this power. For this purpose [illegible], two reports being presented to him by the sanitary inspector where two houses require new latrines. One of the householders is a patient of his, another belongs to a brother practitioner. Here he may be tempted (and weak human nature is such a flimsy diaphanous article) to prosecute one and leave out the other. In a similar way it could be illustrated how each of the various appointments may be abused for private gain.

The suggestion of your medical friend that the Civil Surgeons are a war reserve has been fully gone into by your Allahabad contemporary, in a fit of liberalism, and that theory totally exploded. Civil Surgeons constitute as much of a war reserve as any other body of independent medical practitioners. A great number of these gentlemen have been for ten, fifteen, and twenty years in civil employ, their swords have become rusty, and their uniforms moth-eaten. Were they prevented from private practice each of their places would be taken up by at least two independent practitioners of medicine, mostly Europeans, and the Government would have a double or treble war reserve as it has at home.

Your contempory advances the argument that the public would have a decided grievance if the choice of a doctor were limited by the exclusion of the Civil Surgeon. I have just stated that two practitioners would certainly take the place of each Civil Surgeon in large towns. The supply would increase with the demand. Room would be opened up for specialism which is entirely non-existent in India. In the United Kingdom and all other European, Asiatic, American, and Australian countries, there are no State-aided private practitioners, and yet your contemporary will admit that there is no lack of choice, nor has the complaint been made that these countries and continents are inadequately served. There are four universities in India which grant medical degrees and diplomas, and yet one rarely sees students at these centres training for purely private practice. The usefulness of these universities is handicapped by this iniquitous custom. In the race for existence in medicine the Civil Surgeon is started with Rs. 1,000 in his pocket every month to set up house with, supply himself with horses, besides being supplied at the public expense with instruments, assistants, and chaprassies to help him in his work, and yet your contemporary talks of "fair field and no favour." Bah! Have done with such nonsense. Acknowledge that those in power will help others in power till some one stronger dislodges them. So far we have not found him. We expected him in Sir Antony MacDonnell, but he has sorely disappointed us. Perhaps there is a Cobden or Bright in Simla, but certainly there are many in the vicinity of St. Stephen who will see justice done.

If this privilege of private practice is continued to the Civil Surgeon I see no reason why the other branches of the public service should not be permitted to add to their salaries by following out in their leisure hours some pro-

fession or trade for which they may have qualified. I see no reason why the Judge, who is a barrister, may not close his Court whenever he has a case in the Magistrate's Cutcherry, to go and plead there; I see no reason why the Superintendent of Police may not utilize his acute powers of Sherlock Holmesism by opening up a private detective agency for the prosecution of Mussoorie divorces; I see no reason why the District Engineer may not build Kapurthalla's chateau; I see no reason why the Depôt Commandant at Landour or his Staff Officer may not organise a ladies' shooting gallery, charging a gold mohur entrance fee; or Sir JAMES WESTLAND, able financier as he is, open a large banking corporation at Calcutta, and I certainly see no reason why Mr. SECRETARY MILLER may not edit the Allahabad paper. The public have a decided grievance in being deprived of the services and talents of these excellent officers.

Yours &c., L.R.C.P. & S. Edin.

ALLAHABAD, *20th July 1898.*

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MALTHUSIANISM.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Your contemporary, *The Bengal Times*, has found fault with your arguments against Malthusianism, although he admits that "Malthusianism is in direct opposition to Divine teaching, and is so great an offence, as to have incurred, for its first disciple, no less penalty than that of *death*. Not only, then, does nature's instinct revolt against an act that frustrates its ordained end, but it may incur a visitation of divine wrath dreadful in its consequences. You abstained purposely and for obvious reasons from introducing religious or theological considerations, though you are convinced, that purely human philosophy is not, as a rule, a sufficient deterrent from moral evil. I am bound to say that your contemporary has not a single argument against Malthusianism, except this reference to the Bible; and the objections which he thinks fit to make against your arguments, would in their logical conclusions, militate against his own position "that nature's instinct revolts against an act that frustrates its ordained end." Why should nature's instincts revolt, if nature's propensities and inclinations *are* (as your contemporary holds) the proximate determinants of human actions? You maintain probably, in spite of the confident assertion of your contemporary that you are evidently (!) off your perch and that you have somehow missed the point, that propensities and inclinations, as such, that is to say, independent from the control of reason, are not the proximate determinants of human actions, and you must stoutly deny that the human will (you used the words "rational will") is subordinate to impulsion. According to your contemporary "human will is merely a subordinate mechanism to mental, moral, and sometimes even to physical impulsion." There is a denial of free will, if ever there was one. Man feels a "mental" impulsion to murmur against God, because he considers God the cause of his child's death,—or he feels a "moral" impulsion to defend his honor by a duel, which his judgment condemns; or he has a "physical impulsion to get drunk;—why, he cannot help himself, for his will is but a subordinate mechanism" to these impulsions. I confess I do not see why, on the showing of your contemporary, the will should only "sometimes" be subordinate to physical impulsion, for the latter is generally far stronger than mental and moral impulses. The fact is you both are not agreed on your terms. You hold intelligence and will to be supersensual attributes, and therefore you spoke of the "rational" will. The office of the intellect is to pursue truth, of the will to embrace goodness. The former may err in its pursuit, the latter may refuse to accept the true good and agree to what is only apparently so; for example, physical satisfaction in the presence of its moral condemnation. But intelligence and will are both above sense as attributes of the soul whereas you thought you had made it clear that you understood by "propensities and inclinations" those blind forces of the sensual "appetites," seeking the immediate satisfaction of the corporal organs, without reference to higher or more remote good. Surely these inclinations must be refrained by the will, and their use dictated by reason.

Yours &c., A. READER.

SOUTH INDIA, *16th July 1898.*

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WHO IS MR. HAEGERT? IS HE A QUALIFIED MEDICAL MAN.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Enclosed you will find a clipping from the *Indian Witness* of 8th July which seems to have been written to advertise Mr. HAEGERT's wonderful (?) skill!

No doubt the medical profession throughout India, will be glad to know of the existence of such a medical monstrosity in their midst. Should any of the brethren come across a case which they cannot manage, let them write the *name* and *age* of the patient on a *ten-rupee note* and send to Mr. HAEGERT'S address. He will in return send a bottle of "Panacea for all diseases."

Whatever Mr. HAEGERT'S motives are, no doubt they are good, it seems to me that a man professing to be a follower of the "meek and lowly one" should be a little more reserved in the use of the "ego" and in making assertions that it is hard for an intelligent person to believe.

Yours &c., W. W. ASHE.

M. E. MISSION, PAURI, GARHWAL, *18th July 1898.*

Extract from Indian Witness, 8th July 1898.

"A REAL JUNGLE WALLAH."

"DURING the year I had the privilege to *attend medically* the Missionaries and their families of nine different Societies —English, Scotch, Americans and Germans. Some wrote to me from 100 miles to get medical advice. This shows wonderful confidence. They *passed by scores of Doctors* to come to ME. A Lady of the C. M. S wrote: "I can never thank *you* sufficiently for the good *your medicines* did me" A Baptist Missionary had his daughter cured. I CURED her when others could not; and yet this sinner never wrote to thank me. No doubt he often thanked God for the cure. A real American said that "*my medicines* had done him a mighty lot of good." A Canadian wished to send my fee by instalments. I replied: "You will have to work it off on your knees by praying for the success of Christ's Kingdom in these jungles." A Scotchman thinks that *our prescriptions* are "better than what you can get anywhere else," and recommends them right and left for eighteen years, etc., etc. However, when "The Professor" comes under my treatment, I shall give him a dose of medicine to make him jump for joy.

The poor I attend daily. The last patient came half-an-hour ago. However a few doctors, several engineers, and

some of the tip top people were also attended medically by me during the year. A rich lady, with about Rs. 300,000 in the bank, and a great sufferer, *whom twelve good doctors* had failed to benefit, in India and England, appealed to me. I cured her as if it was child's play. Every farthing of my fee has gone into the mission box. My master keeps me with food and clothes, and keeps me alive; so I cheerfully serve Him. Beside He says: "Be thou faithful unto death, and I will give the a crown." Praise Him.

Our 1800 Christians live in 120 villages. There is every reason to thank God and to take courage. If you get to heaven before me, then look out for the Jungle Wallah, with 10,000 at his back. Praise ye the Lord. We will all shout, when we get up there. Just now I am hard up for Rs. 500 to help the poor things that come daily asking for seed, food, and oxen to plough their fields. Best look into your banking account and see whether you cannot send us a good cheque. All things are yours, but do not forget that you belong to Christ."

Yours &c., A. HAEGERT, L.M."

Bethel, via Jamtara, 25th June 1898.

(We would like Mr. Haegert to tell us what the letters L.M. signify to him. To medical men and women they signify the possession of a University degree (Irish) or a diplomate in midwifery. What school of medicine does Mr. Haegert hail from? We fail to find his name on any medical register.—ED, I. M. R.)

———:o:———

PROMOTION UNLAWFULLY DELAYED.

TO THE EDITOR, "INDIAN MEDICAL RECORD"

SIR,—Would you kindly give the following grievance a place in an early issue of your esteemed paper, in the hope that it may catch the eye of some one who has it in his power to alter the lax state of things which causes a great deal of dissatisfaction and grumbling at present in the Sub-Medical Department.

It appears to have been the custom for years to fill up vacancies for promotion twice a year, lately this has not been done, I believe that one vacancy, caused by the death of a first class Assistant Surgeon in June 1897, has not yet been filled up and besides this old standing one there are a large number of others which have occurred since. Anxious eyes have been scanning each gazette as it has appeared up to time; but their hopes and expectations have been a clear waste of anxiety and patience. It seems unaccountable to me why it is necessary to keep things so far in the back ground, it is not because anything is gained or saved thereby, for the promotions carry with them back pay up to the date when the vacancies occurred.

This department would have some thing to be thankful for if those in office, who see to these things, could put forward the promotions every quarter, that is, every 3 months. To us there would then be some meaning in the announcement with which each issue of the Indian Army List comes out, *viz.*, "corrected up to the 30th——— 1898." If any one thinks that in looking into this publication at present he will find it up-to-date he will soon see he is mistaken, if he has kept any notes of men who have gone off, or gone out within the last 6 or 8 months.

In the Commissariat, the miscellaneous, and the Ordnance Departments, the way they manage this business is an example to ours, but I suppose this is owing, a great deal, to the fact that the clerks who have to see to this are themselves on the same list and have, so far a personal interest in the matter that they expect some day to see their own names nearing the top of the roll.

If more regularity in putting forward the promotions for publication can be brought about by any means, I am sure the whole service will feel under a debt of gratitude to any one who will help to do so.

Yours &c., A. JUNIOR.

20th July 1898.

ON BEHALF OF EUROPEAN AND INDIAN LEPERS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—I would again press the needs of this Asylum on your charity, as our daily requirement of food alone is hard to meet. Such a charitable institution must appeal to every one who has ever seen the helpless condition of the leper. By the repelling nature of the disease he is cut off from friends, by its suffering he is cut off from any share in their business which supports them; for sanitary reasons he is excluded from any work for self-support, so he becomes of necessity an object of charity and pity, for even in well-to-do families the leper is an outcast.

The establishing of Asylums is to secure the public against the pernicious influence of roaming lepers. For these reasons, I have boldness in urging yet again our ever recurring needs on the public who have here-to-fore helped us so generously and to whom our thanks are due.

At present there are two Europeans in this Asylum and nearly one hundred Indian lepers. Friends help us with your means. Small sums under rupees three are welcome and to save cost, can be sent in postage stamps.

Every year a Report with "balance sheet" is published and sent to subscribers and to others who may ask for the same.

Your donation may be paid into the "Alliance Bank of Simla, Head Office," to be credited to the "Sabathu Leper Asylum Fund," or sent direct to the Superintendent.

Yours &c., M. B. CARLETON, M.D.,

Superintendent, Leper Asylum.

SABATHU, *21st July 1898.*

———:o:———

DR. MATHEW DIAS OF HYDERABAD.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—There passed away, at Karachi, on the 5th of this month, a medical practitioner, MATHEW DIAS, deeply regretted by a large circle of friends and relations and an immense *clientele*. The town of Hyderabad, Sind, which was the field of his labours has lost in him a man who, for his devotion to his patients and his love and charity for the suffering poor, had deserved well of one and all. His name corrupted into "Mathoo" was a household word in Sindhi homes and will remain so for a long, long time. In his own quiet and unostentatious way he rendered such good service to suffering humanity that his death is a real calamity to the town. For 20 years Mr. DIAS bore alone with courage and patience the burden and strain of his heavy work and to this circumstance must be attributed the sudden breakdown and snapping of the thread of life while yet in the prime of manhood. He was only 46 at the time of his death. It is a pity, that a life as useful as his was, should have been cut short so prematurely, for it has deprived his large family of its only support, and his patients, who could be counted by thousands, of their best friend and healer. But the good are always called away first.

Yours &c., A GRATEFUL PATIENT AND FRIEND.

SHOLAPUR, *25th July 1898.*

CHYLO-SEROUS URINE.

To the Editor, "Indian Medical Record."

Sir,—Will you or any of your numerous readers kindly suggest a treatment for the case of a Parsee widow, middle-aged, mother of two children, who has been suffering from diabetes for some time past and whose urine has latterly been chylo-serous. I have given Gallic Acid, Tincture of Iron, &c., without success. Can a reader of the *Record* suggest anything else likely to do good, and oblige.

Yours &c., Alaric.

(Try good daily doses of sulphate of magnesia and full doses of quinine morning and evening.—Ed., I. M. R.)

Book Reviews.

OUTLINES OF MEDICAL JURISPRUDENCE FOR INDIA.

(Fourth Edition, 1898.)

By J. D. B. Gribble M.C.S., & Patrick Hehir, M.D., F.R.S. & F.R.C.S., Edin.

Surgeon-Major, I. M. S. and C.

(Publishers: Higginbotham Co. Madras.)

That a work such as "Gribble, & Hehir's Jurisprudence" was needed and is needed in India is proved by the self-asserting fact that this work has passed rapidly through four editions in a few years. It covers the whole range of practical Forensic Medicine as it presents itself to the practitioner in India, and as a standard text-book for this country, it stands second to none.

INTRODUCTION TO CHEMICAL METHODS OF CLINICAL DIAGNOSIS.

By Dr. H. Tappenier.

Translated from the German Edition with an Appendix on Micro-biological methods of diagnosis by Edmond J. McWeeney, M.D.

(Publishers: Longmans Green & Co., pp. 152.)

In this little work the student is provided with a handy guide to the simpler chemical and biological manipulations required in the diagnosis of disease, selecting, as it does, only methods of proved efficiency. In a small compass much practical information is compressed, and a succint account given of the more useful modern diagnostic procedures clinical, and biological.

INFLUENZA, WITH SPECIAL REFERENCE TO SOME PECULIAR SYMPTOMS.

By William Gray, M.D., C.M., (Edin.),

(Publishers: H. K. Lewis: London. pp. 71, 8vo.)

With a view to drawing attention to some of the special symptoms of Influenza, the work before us furnishes a description of some of its more unusual relationships. The author has had the advantage of considerable practice during the Influenza epidemics of recent years; and there is little doubt he has succeeded in making his descriptions both valuable and interesting to members of the profession.

INFLAMMATION OF THE BLADDER AND URINARY FEVER.

By C. Mansell Moullin, M.D., (Oxon.), F.R.C.S., *Surgeon and Lecturer on Surgery at the London Hospital; Examiner in Surgery at the University of Oxford, &c.*

(Publishers: H. K. Lewis, London, pp. 156.)

This book furnishes us with a valuable series of observations upon cystitis and urinary fever. Considerable attention is paid to those important points having a direct bearing upon the relations that exist between the walls of the bladder and the organisms that invade it. The principles of aseptic surgery still seem to stand in need of an advocate where the bladder is concerned, and the treatise before us, which has been ably and thoughtfully written up, will doubtless serve the useful purpose for which it is intended.

VITA MEDICA: CHAPTERS OF MEDICAL LIFE AND WORK.

By Sir Benjamin Ward Richardson, M.D., LL.D., F.R.S.

(Publishers: Longmans Green, and Co., pp. 96.)

The volume before us forms more or less of an Autobiographical record of a very distinguished surgeon. Owing to his lamented death, before the last proof-sheets were revised, the work is now given to the world by his son, Mr. Bertram Richardson. It would not be possible in a brief and cursory notice like the present one, to afford any adequate idea of the variety of subjects embraced in the book which has scarcely a dull page. The revolutions that have taken place in Physic alone during the author's medical career, extending as it did over half a century, provide interesting reading. Indeed not only every medical man, but the general reader should not fail to find something both to entertain and to edify, in the subjects to which that long and eminently useful life was devoted.

Government Medical Gazettes.

GOVERNMENT OF INDIA.

To be Surg.-Col.

Brig.-Surg.-Lt.-Col. Thomas Holbein Hendley C.I.E, Bengal Estab. 2nd April 1898.

Sur.-Majors to be Surgn.-Lt.-Cols., 30th March 1898.

Bengal.—Jarlath ffrench-Mullen, M.D; Eugene Cartin, Andrew Duncan M.D.; George Frederick Nicholson M.D.; Samuel Ferguson Bigger, Sir George Scott-Robertson, K.C.S I.

Madras.—Thomas Henry Pope, M.D; Robert Pemberton, Damodar Purshotam Warlicker, James Joseph Moran, M.D.; William Adair Quayle, M.D.; Henry Armstrong.

Bombay.—Charles Monks, Phirozsha Jamsetjee Damania, George Henry Bull, M.D,; Frederick Fitzgerad MacCartie, C.I.E.

Surgn.-Captns. to be Surgn.-Majors, 1st April 1898.

Bengal.—William Grant Thorold, Patrick Hehir, M.D.; Lionel John Pisani, Basanta Kumar Basu, M.D.; Narendra Prasanna Sinha, William Rice Edwards, M.D.; Charles Mactaggart, John Fenton Evans, George James Hamilton Bell, Joseph Thomas Daly, Henry Fooks, Ernest Hudson, Arthur William Dawson, M.D.; William Henery Banner Robinson.

APPOINTMENTS FROM THE GAZETTE.

Surgn.-Capt. Bennet Bradshaw Hunt, Madras Estab., 1st March 1898.

Brig.-Lt.-Col. James Arnott, M.D., Bombay Estab., 1st April 1898.

Surgn.-Lt.-Col. James Moorhead, M.D., Bengal Estab 29th May 1898.

Surgn.-Lt.-Col. James Charles Harding Peacocke, Bombay Estab., 14th May 1898.

Asst. Surgn. and Hony. Surgn.-Capt. Joseph Holmes, Bengal Estab., 17th Feb. 1898.

Asst. Surgn. and Hony. Surgn.-Capt. Francis Green, Madras Estab., 9th Sept. 1897.

CHANGES.

The services of Surgn.-Capt. G. S. Thomson, M.B., M. CH., I. M. S. (Bombay), are replaced at the disposal of the Mily. Dept.

The services of Surgn.-Lt.-Col. D. P. Macdonald, M.D., I. M. S. (Bengal), Senior Med. Officer, Port Blair, are replaced temply. at the disposal of the Mily. Dept.

Surgn.-Major H. C. Hudson, I. M. S. (Bengal), to officiate as Senior Med. Officer, Port Blair.

The services of Surgn.-Capt. E. A. W. Hall, M.B., C.M., I. M. S. (Bengal), are placed temply. at the disposal of the Chief Commr. of Assam.

The services of Surgn.-Capt. C. E. William, M.B., B.S., I. M. S. (Bengal), are replaced at the disposal of the Govt. of Burma, from 27th June 1898.

The services of Surgn.-Capt. C. C. Manifold, I. M. S. (Bengal), are replaced at the disposal of the Govt. of the N.-W. P. and Oudh.

The services of Surgn.-Capt. W. Young, M.B., C.M., I. M. S. (Bengal), are replaced at the disposal of the Govt. of the N.-W. P. and Oudh.

The services of Surgn.-Lt.-Col. E. Muir, M.B., I. M. S., (Bengal), are placed temply. at the disposal of the Govt. of Bengal for employment as Offg. Insp. Genl. of Jails, Bengal.

Surgn.-Col Sir George Thomson, M.B. K.C.B., I. M. S., Bengal, is permitted to retire from the service, from 6th July, 1898.

Surgn.-Lt. Col. Joseph Backhouse, I. M. S. (Madras), has been permitted by the Secretary of State for India to retire from the service from 1st July 1898.

BENGAL GOVERNMENT.

The services of Asst. Surgn. C. R. W. Bancroft are replaced at the disposal of the Govt of India, Home Dept.

Surgn.-Capt. D. M. Moir, First Resident Surgn. Presy. Genl. Hosp., Calcutta, furlough for one year, from the date on which he may have availed himself of it.

Surgn.-Capt. F. O'Kinealy, Second Resident Surgn. Presy. Genl. Hosp., Calcutta, to act as First Resident Surgn.

Surgn.-Capt. B. C. Oldham, Civil Surgn. of Backergunge, to act as Second Resident Surgn., Presy. Genl. Hosp., Calcutta.

Dr. J. L. Hendley, Civil Med. Officer of Bankura, at present acting as Insp. Med. Officer, Khurda Road Stn., to be Civil Med. Officer of Puri.

Dr. V. L. Watts Offg. Civil Med. Officer of Bogra, to be Civil Med. Officer of Bankura.

Asst.-Surgn. Satis Chandra Basu, Puri Pilgrim Hosp., was on deputation at Calcutta, for the purpose of giving evidence at Court, from 18th April to 5th May 1898.

Asst.-Surgn. Sarat Chunder Biswas, to do supy. duty at the Med. College Hosp. Calcutta, from 5th July 1898.

Asst. Surgn. Sasi Bhusan Mukerjee, Chanchal Dispy. leave for three months.

Surgn.-Capt. D. M. Moir reported his departure from India, on furlough, 26th June 1898.

Dr. W. Forsyth, Health Officer for the Port of Calcutta, privilege leave for three months, from 21st July 1898.

Dr. J. L. Hendley, Civil Medical Officer of Puri, to act as Health Officer for the Port of Calcutta, until further orders.

Surgn.-Capt. A. H. Nott reported his departure from India, 18th June 1898.

Surgn.-Major F. S. Pask, Civil Surgn. of Muzaffarpur, privilege leave for three months, from 27th July 1898.

Surgn.-Lieut.-Col. T. Graham, Offg. Civil Surgn. of Champaran, to act as Civil Surgn. of Muzaffarpur, until further orders.

Asst. Surgn. Nagal Charn Chatterjee, Medical Dispy., to have med. charge, civil station of Champaran.

Asst. Surgn. J. C. Gilmour, to be an Inspg. Med. Officer at Chakradharpur Stn., Bengal-Nagpur Ry.

Asst. Surgns. Surgn. F. J. Daley and A. H. Tighe, to be Inspg. Med. Offrs. at the Khurda Road Stn., Puri.

Babu Chunder Kumar Dutt, a student of the Med. Coll., Calcutta, is admitted into Govt. service as an Asst. Surgn., from 14th June 1898.

Asst. Surgn. M. B. Musgrave to be the Inspg. Med. Officer at Chakradharpur Stn. Bengal-Nagpur Ry. Singhbhum.

PUNJAB GOVERNMENT.

Hosp. Asst. Ram Tikaya, Travelling Hosp. Asst. N.-W. Ry. Bhakkar Section, 15 days' privilege leave from 19th June 1898.

Hosp. Asst. Lachman Das, doing genl. duty at the Mayo Hosp., Lahore, to the Sahiwal Dispy. Shahpur dist., 25th June 1898.

Hosp Asst. Parmanand resumed charge of the Jail and Police Hosp., 22nd June 1898.

Hosp. Asst. Kartar Singh obtained privilege leave from 11th to 30th June 1898, when he reverted to Gujranwala and resumed charge, City Branch Dispy., 1st July 1898.

Hosp. Asst. Moti Ram, Rawalpindi jail and Lock-up Hosp. three months' privilege leave.

Hosp. Asst Lal Din, doing special plague duty Jullundur dist., one month's privilege leave from 2nd July 1898.

Hosp. Asst. Ata Muhammad, Wana Dispy., having passed the English Qual. Exam. is entitled to the highest rate of pay of his grade from 31st May 1898.

Hosp. Asst. Abbas Ali Shah was placed on genl. duty at Peshawar from 1st July 1898.

Hosp. Asst. Ganpat Rai obtained one month's leave without pay from 22nd June 1898.

Asst. Surgn. J. D. Rebeiro, doing gedl duty at the Mayo Hosp., Lahore, was placed on special plague duty at Ludhiana in connection with the Detention Camp from 27th June, 1898.

Hosp Asst. Bama Charan Ghose was appointed to the N.-W Ry Hosp Saharanpur, 24th June 1898.

Asst. Surgn Harnam Das Imperial List, was appointed on special plague duty at Beas, Amritsar dist from 3rd July 1898.

Hosp Asst Nankul Sain, doing genl duty at Peshawar, to 5th divn. Chenab Canal, 27th June 1898.

Hosp Asst. Abdul Hamid resumed charge, Budhlada Dispy. Hissar dist. 5th July 1898.

Asst. Surgn. Ilahi Bakhsh, doing special plague duty from Jullundur dist. privilege leave for 2 months and 22 days from 11th June 1898.

CENTRAL PROVINCES GOVERNMENT.

Hosp. Asst. Murlidhar, doing duty under Civil Surgn Jubbulpore, was on Plague duty from 3rd to 18th Dec. 1897, and in charge of the Government Orphanage from 19th Dec. 1897 to 28th Feb. 1898.

The following Civil Hosp. Assts. were deputed on Famine duty, under the P. W. D during the period noted against their names :—

Abdul Bari, Wardha, from 1st May 1897 to 23rd Oct. 1897.

Ashutosh Chatterji, Nagpur, from 29th July 1897 10th Nov. 1897.

Ahmadullah Khan, Saugor, from 2nd April 1897 to 16th Nov. 1897

Hosp. Asst Beni Parshad, Central Jail Hosp. Raipur, to report himself to Officer, Narsinghpur, for duty at the Main Dispy.

Hosp Asst. Vasudeo Ganesh, doing duty under Civil Surgn. of Nagpur, Police Hosp, Chanda.

Hosp Asst. Shaikh Abdul Rahim, Saugor City Branch Dispy., to do plague duty, Saugor Ry. Stn., from 30th May 1898.

BURMA GOVERNMENT.

Hosp. Asst. K. Kanaren assumed charge Genl. Hosp. Akyab, 31st Dec. 1897.

Hosp. Asst. K. Kanaren assumed charge Dispy. Zigon, Thayrawaddy dist., 24th June 1898.

Hosp. Asst. P. V. Govindarajalu Mudaliar assumed charge Genl Hosp. Rangoon, 13th July 1898,

Hosp. Asst. No. 100, Shaik Choenooeuddin assumed charge Police Hosp., Katha, 12th July 1898.

Hosp. Asst. Makkan Lal Warma, to Shwebo dist., 15th July 1898.

Hosp. Asst. T. J. Venkatachellum Naidu assumed charge Police Hosp, Kindat, 9th July 1898.

Hosp. Asst. Bishan Lal, assumed charge at the Ry. Dispy., Naba, 10th July 1898.

Hosp. Asst. Sunder Singh assumed charge at the Civil Dispy., Katha, 12th July 1898.

Hosp. Asst. Chowdhry Mowla Buksh, on transfer to Mergui dist., relinquished charge Genl. Hosp., Rangoon, 15th July 1898.

Hosp. Asst. C. Krishnan assumed charge Police Hosp., Katha, 10th July 1898.

Hosp. Asst. Maung Po Myin assumed charge Genl. Hosp. Rangoon, 13th July 1898.

Hosp. Asst. Maung Maung assumed charge Genl. Hosp, Rangoon, 13th July 1898.

Hosp. Asst. No. 197, Daniel Paul, assumed charge, Police Hosp., Magwe, 23th July 1898.

Surgn.-Major E. P. Frenchman, on proceeding on three and half months' privilege leave, made over, and Surgn.-Capt. E. J. Dewes assumed charge of the duties of the Civil Surgn., Bassein, 30th June 1898.

Surgn.-Capt. J. H. Sellick, made over, and Surgn.-Capt. T. W. Stewart assumed charge, duties of offg. Supt. and and Med. Officer, Central Jail, Insein, 30th June 1898.

Hosp. Asst. Khabiruddin, relinquished charge, Contagious Disease Hosp., Rangoon, 2nd July. 1898.

Hosp. Asst. F. A. Jeycela Rao, leave for three months, 30th June 1898.

Hosp. Asst. Nawab Khan, assumed charge, Outpost Hosp., Tagaung, 23rd June 1898.

Hosp. Asst. Guru Das Barwah assumed charge, Outpost Hosp., Talowgyi, Myitkyina, 25th June 1898.

Hosp. Asst. P. K Panigrahi assumed charge, Outpost Hosp., Shwedwin, Upper Chindwin dist., 8th May 1898.

Hosp. Asst. Makkan Lal Warma assumed charge, Civil Hosp, Kyaukse, as a supery., 5th July 1898

Hosp. Asst. Maung Me Nyo relinquished charge, of duties, Police Hosp., Shwebo, 9th May 1898.

Hosp. Asst. Amirate Lal Guha assumed permanent charge, Allo Hosp., Pokokee, 23d June 1898.

Hosp. Asst. Bishen Lal assumed charge, Police Hosp., Katha, 4th July 1898.

Hosp. Asst. Sawan Singh assumed charge, Outpost Hosp, Myothit, Bhamo dist. 22nd June 1898.

Hosp. Asst. T. Venkatapernmal Reddy assumed charge, Outpost Hosp. Nampaung Bhamo dist. 21st June 1898,

Hosp. Asst. Hussain Buksh assumed charge Ooutpost Hosp. Kabaing Ruby Mines dist. 28th June 1898.

Hosp. Asst. K.G. Mariasusai Naidu assumed charge Contagious Disease Hosp., Rangoon, 2nd July 1898

ASSAM GOVERNMENT.

The services of Surgn.-Major E. F. H. Dobson, I M S., Civil Surgn. Goalpara, are replaced at the disposal of the Govt. of India Home Dep.

Babu Hara Lal Shome is confirmed as Third-grade Hosp. Asst. in Assam, from 26th March 1898.

Privilege leave for three months, is granted to Hosp. Asst. Nabin Chandra Das, Bholaganj Dispy., Sylhet dist. from 6th July 1898.

Hosp. Asst. Anukul Chandra Das Gupta, a Supy., Sylhet dist, to the med. charge of the Bholaganj Dispy. in that dist. from 6th July 1898.

Babu Satis Chandra Chatterji, a passed student Campbell Med. School, Calcutta, is appointed on probation for six months, a Civil Hosp. Asst. in Assam, and is posted to Sylhet for duty as a Supy. from 9th July 1898

Hosp. Asst. Satis Chandra Chatterji, has passed the English Qual. Exam, 14th July 1898.

Hosp. Asst. Brajendra Mohan Goswami, a Supy., Sibsagar dis to the Titabar Dispy. in that dist. from 15th May 1898

Hosp. Asst. Fakhrul Islam, Titabar Dispy., Sibsagar dist. to Naga Hills dist. Wokha Dispy. from 31st May 1898.

Hosp. Asst. Ramani Mohan Das, Naga Hills dist, to Sibsagar dist., Titabar Dispy. from 15th June 1898.

Hosp. Asst. Bishnu Charan Sanerji, Bhanga Dispy. to Manipur Dispy. and Jail and Police Hospls. from 16th June 1898.

Hosp. Asst. Brajendra Mohan Goswami, to Darrang dist. as Supery. for duty under Civil Surgn. from 24th June 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Re. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTH.

PISANI.—On the 10th July, at Aligarh, wife of Surgeon-Major L. J. Pisani, Indian Medical Service, of a son.

MARRIAGE.

HENDLEY—PETRIE.—On the 7th July, at the Parish Church, Eastbourne, by the Rev. J. H. Copleston, Rector of Offwell, Devon, assisted by the Rev. H. B. Ottley, Vicar of the Parish, Surgeon-Captain Arthur Gervase Hendley, I. M. S. youngest son of the late Surgeon-General John Hendley, C.B., to Jessie Graham, eldest daughter of J H. Petrie, Esq., 5, South Cliff, Eastbourne.

DEATHS.

MORICE.—On the 2nd June 1898, at 29, Trebovir Road, South Kensington, Surgeon-General John Charles Morice. I. M. S, aged 61 years. (Other papers, please copy.)

RUSSEL.—At Bareilly, on 22nd June, from heat apoplexy, Surgeon-Captain A W. F. Russel, I. M. S, youngest son of A. E. Russell, Esq, The Gabbles, Crockham, Winchfield, Hants, in his 29th year.

CHERRY.—On the 27th June, 1898, at Cawnpore, Hubert Maxwell, eldest son of Surgeon-General William Cherry, of Oreywell, New Ross, Ireland.

MILES.—At his residence, Kensington Road, Bangalore, on the 13th July, 1898, of Bright's disease, Surgeon-Lieutenant, H. H. Miles, I S.M D. Aged 51 years.

NOTICES TO CORRESPONDENTS.

R. E. W. (Dehra Doon).—Many thanks. We gladly welcome the return of old friends.

E. M. (Cawnpore).—We know of no institution which assists indigent lads to prosecute medical studies.

G. E. C. (Bandikui).—Thanks for your paper. Next number.

S. N. S. (Tala).—Your name has been registered.

P. R. (Jullunder).—Hospital Assistants are members of the Subordinate Medical Department and not of the Army Hospital Native Corps. The later are menials the former educated medical assistants.

J P. P (Tenkasi).—Thanks for your paper.

A. S (Merta).—The case you describe is one probably of Hysteria.

Another interested.—The matter of the Chief Medical Officership of the E. B. S. Ry., is now before the Government of Bengal. We trust a suitable man will be appointed.

S. Y. K. (Manyzeer).—Hospital Assistants are *not* entitled to put the word Doctor before their names. Read back numbers of the *Record* for your further enquiries.

M. C. C. (Shillong).—You will find all the information you want in the new edition of the *Medical Register and Directory of the Indian Empire*.

GENERAL ARTICLES.

THE ARMY MEDICAL STAFF: ITS PAST SERVICES AND ITS PRESENT NEEDS.*

By Peter Alexander Young, M.D.,

Fellow and Treasurer of the Royal College of Physicians of Edinburgh.

At the present time there has been much discussion regarding the medical staff of the army and the difficulty of getting candidates to offer themselves for the examination for commissions in the service.

The main objection seems to be the absence of definite rank and titles. The titles at present in use are so cumbrous that they can only be used in official correspondence, and cannot be employed in ordinary social life; the result being that medical officers, after a long and distinguished career, retiring with say the nominal rank of major-general, are invariably addressed in civil life as plain "Dr." or "Mr."

In the service the supposed rank of the medical officer is set aside, and he is spoken of as simply "the doctor." He is thus deprived of the prestige the military rank confers, he finds himself at a disadvantage when associating with other officers, and he feels that under many circumstances he is snubbed. Although exposing himself equally with other officers to the perils, casualties, and fatigues of campaigns, he has been spoken of in the highest military circles as "a civilian." Can it be wondered at, then, that young men of spirit and talent hesitate before they join a service where they may be subjected to social disability, and cannot enjoy the status that military rank should give?

It may be of advantage and interest, before further discussing this subject, briefly to look at the evolution of the medical department of our army, and to find if, during the past two hundred years, it has not, by its services to the country, deserved more consideration, and earned for itself a right to be a component and military part of our army. For an account of the chief facts of this historical sketch, I am very largely indebted to Surgeon-Major Albert A. Gore, who, in his work, "Our Services under the Crown," has given a most interesting account of the medical service of our army.

In 1680, the army consisted of but four regiments, and, when Tangiers belonged to Britain, medical officers were sent with the army of occupation. The chirurgeons were attached to regiments, and their names appeared in the Army List. In the Guards they received 4s. a day, and had a horse to carry their chests. Chirurgeons'mates were also attached to regiments, but, as they received their warrants from the regimental colonels, their names do not appear in the Army List. The Company of Surgeons of London seems to have provided the chirurgeons and chirurgeons'-mates. About this time the chirurgeons are returned before, and presumably ranking before, captains. During the reign of James II. it was by no means uncommon for medical officers to hold double commissions—purchasing their commissions as ensigns, and obtaining 2s. 6d. a day for extra hospital service. Medical officers who held double commissions were exempted from all combatant duty, such as guard-mounting and attending courts-martial. They ranked as staff officers. In 1685, we have mention of surgeon-general, who occupied the chief position in the Army Medical Service. The officer had, as one of his duties, to certify soldiers who had lost a limb, in order to get a bounty of one year's pay. Sometimes regiments went on board ship to act as marines. When this occurred their surgeons did not go with them, but remained on duty ashore.

In the reign of William III. we find the title of physician-general occuring as the medical head of the army in Ireland. Dr. (afterwards Sir) Patrick Dun was the first to fill this post. For army service he had 10s. a day. Money left by Sir Patrick went partly to found the hospital in Dublin called after him, and which exists to this day, and where soldiers' wives are at present trained to become army midwives. Sir Thomas Molyneux, who afterwards occupied the position of physician-general, was the first medical baronet of Ireland. Thomas Proby, who was chirurgeon-general of the army in Ireland at the end of the seventeenth century, was *ex officio* examiner for the diploma in surgery. In 1697, the Company of Surgeons of London had a bowl of 160 oz. presented to them, "in acknowledgment of their services in examining the surgeons for the army and navy." Marlborough took a great personal interest in the surgeons, with whom he was in constant communication. At Blenheim one in five soldiers was wounded. After Malplaquet 12,706 wounded fell to the allied surgeons. In 1795, Radcliffe attended Lord Albemarle at Namur in camp, and also William III., and received a fee of £1700, and declined a baronetcy. In 1714, the terms surgeon and surgeon's-mate were used instead of chirurgeon. During the reign of George I. a surgeon and surgeon's-mate were attached to the Ordnance Department, which afterwards became the Royal Artillery. During the time of George II. an increase of the army took place, and the regimental staff was arranged thus—chaplain, surgeon, adjutant, quarter-master. In 1743, George II. was present at Hoetch with the army under Lord Stair, and John Ranby, prime sergeant surgeon, was in attendance on the king—the last time a surgeon to the king was present in action. During this campaign it was arranged between Lord Stair and the French commander that the hospitals should be mutually protected, an arrangement strictly observed by both sides. Dr. Francis Horne, afterwards Professor of Materia Medica in the University of Edinburgh, served in Flanders as an army surgeon. Sir John Pringle wrote of the medical arrangements at Dettingen, which were chiefly regimental, with general hospitals in the rear. This surgeon accompanied the army to Scotland during the rebellion of 1745. When the troops advanced on Carlisle the sick were left *en route* in the towns, under civil surgeons and apothecaries. After Culloden, two malt-barns at Inverness received the wounded—broadsword cuts were common, and healed well. Sir John Pringle retired with a baronetcy, and was appointed physician-in-ordinary to the king. In 1716, Sir Hans Sloane was created the first medical baronet in England by George I., and appointed physician-general to the forces. He served in Jamaica on the staff of the Duke of Buckingham. In 1719, he

* Reprinted from the *Edinburgh Medical Journal* by request.

was presented of the College of Surgeons, and succeeded Sir Isaac Newton as president of the Royal Society. He was appointed apothecary-general by George II. in 1747, and had the privilege of providing the medicines for the land forces of Great Britain. Properly equipped hospitals were introduced by Middleton, surgeon to the forces, in 1748, patients being provided with separate beds, clean linen, and trained nurses.

Up to 1745, there was no medical inspection of recruits, but after this time rupture was assigned as a disqualifying disability. In 1751, medical officers wore the uniform of the corps to which they belonged. The medical officers of the 39th Foot, in 1787, were the first surgeons of the British Medical Staff who saw service in Bengal.

In 1756 a Hospital Board was formed to control medical affairs, but after a time fell into disuse, and the principal hospital surgeons did the work of the Board.

Oliver Goldsmith obtained a nomination for the East India Company as surgeon's-mate, but failed in his examination at the College of Surgeons. A surgeon's pay in 1760 was £73, while a captain's was £182.

Brocklesby, a distinguished army surgeon, considered that the pay of the army surgeon was too small. He thought that it should at least be £250, as it had to be obtained by purchase, and cost £500. He was of opinion that the medical service should be recruited from young gentlemen, duly qualified, of a good education and liberal turn of mind, with £700 in their pocket to purchase their commissions. He recommended that the examination of candidates should be transferred from Surgeons' Hall to one of the censors of the College of Physicians, conjointly with a physician who knew the proper characteristics requisite in aspirants for the post, it having been the practice, in many instances for some great man to recommend raw youths just released from their apprenticeship. Brocklesby recommended the use of hut hospitals, which resulted in a lessened mortality amongst sick soldiers.

Donald Monro, a near relation of Monro *primus*, Professor of Anatomy in the University of Edinburgh, was physician to St. George's Hospital and His Majesty's forces in 1761.

Medicine and surgery were considered distinct professions in the army at this period, but a physician or surgeon could hold a regimental appointment. The department was governed in London by a physician-general and a surgeon-general.

The morning visit to a military hospital seems to have been a very perfunctory affair—consisting in calling the roll, and ordering something the patient could not procure from the half-crown a week allowed, which was expended under the direction of the surgeon by the hospital sergeant. The mates did the work, and were frequently warned not to use too much medicine, as it was provided out of the senior officer's annual allowance. Mates were promoted to the rank of surgeon only after a long period of service, and then only by a lucky chance. They were not required to pass an entrance examination. Previous to 1783, surgeons' appointments were bought and sold, but after this period the sale of commissions was legally suppressed, but for long after was still carried on. The officers required simply a certificate from a private teacher to get an appointment; no diploma or Surgeons' Hall certificate being necessary. John Hunter, the famous surgeon, said "that it was not necessary for a man to be a surgeon to practise in the army." Promotions were few and far between; surgeons could sell their commissions if they wished to retire, but they had no superannuation allowance. Surgeons to general hospitals received about £200 a year, regimental surgeons £100, and apothecaries 10s. a day.

The physicians of the army, who were highly educated and often University graduates, were looked upon as the *élite* of the profession, and paid very much in advance of regimental surgeons. Occasionally during war a surgeon was raised to the rank of a physician. Surgeons'-mates, although non-commissioned, enjoyed some of the privileges of the surgeons, and had a place assigned to them on parade. The titles master-surgeon, deputy-director, and director of hospitals are first found at this period.

In 1787 we first find the title surgeon-major. The higher titles appeared during a war, when staff surgeons and physicians were selected from civil life on the spur of the expedition, and very rarely from the regimental surgeons.

In 1786, John Hunter was made deputy surgeon-general, and in 1791 appointed to the joint office of surgeon-general and inspector of regimental infirmaries. He had served as senior staff surgeon at Belleisle in 1760, and in Portugal in 1763, when he was designated "surgeon-general, deputy purveyor-inspector, and director of general hospitals." John Hunter made it a rule that the higher ranks should be filled from the lower, but after his death the arrangement that Oxford and Cambridge graduates, or members and licentiates of the College of Physicians should fill the highest grades, was reverted to. After his death, the office of surgeon-general merged into a Board consisting of physician-general, surgeon-general, and one inspector of regimental infirmaries. This arrangement continued till 1808, when it consisted of a director-general and the principal inspectors. After the peace of 1815, these inspectors ceased to be borne on the return of the staff of the army.

Sir Lucas Pepys, who was physician-general and president of the College of Physicians, recommended physicians for the army. The Surgeon-general recommended surgeons for the post, and he could delegate his duties to superior surgeons, who were called principal officers of hospitals. The surgeons were placed under the inspector-general. This complicated system was proved inefficient, and led to a new order of inspector-general, appointed from the surgeons of the line, as knowing military duties better. The surgeons provided diet for the sick from a fund allotted for their support—the prices were checked by the commanding officer of the regiment, who signed the surgeon's accounts.

The Duke of York nominated for the office of physician to the force. Dr. Jackson, without the intervention of the College of Physicians, thus breaking the monopoly. Dr. Jackson had served in America and the Peninsula with great distinction. He particularly urged the claim of the medical department of the army to a share of the military honours and distinctions, on the grounds "that it shared in the fatigues and dangers of war, and, in just return, it is entitled to a share of its advantages." He

further says: "If a medical officer be professionally skilful and morally correct, he is entitled, as he is eminently useful in his vocation, to a respectful place of rank in the military fabric; the medical officer claims to himself the rank of a gentleman, and the respect which is due to a man of science. Rank is everywhere the gift of power. If the officers of the medical staff were advanced by a just and legitimate rule of gradation, the staff surgeons would class with captains, the physicians with lieutenant-colonels, and the physicians-in-chief with generals. *The rank accorded to the medical officer does not injure or even interfere with the military. Rank is of no intrinsic value to the man of science, but the opinion connected with rank makes an impression on the soldier which aids materially in giving force to medical authority, and consequently to medical utility.*"

Until the termination of the year 1793, the rank of the medical staff of the British army was not distinctly defined. The assistant-surgeon joined a regiment with the rank of lieutenant, and the surgeons took rank with captains, according to date of commission. When staff-surgeons were introduced they did duty in the general hospitals, and were quite distinct from regimental surgeons. Assistant-surgeons followed in rear of the fighting line, and the quarter-master, pioneers, and band removed the wounded to rear, beyond the range of fire. At this time the term Medical Staff was introduced. In 1802, surgeons, called district surgeons, to examine recruits were appointed.

At the beginning of this century, there was some difficulty in getting officers to join the medical staff, and the Dublin School was requested to send officers, and inducements were held out to them to join the service. In 1804 a warrant was issued, granting higher rates of pay. Infantry and cavalry surgeons received 11s. 4d. per diem, and both had to keep a horse. Inspectors and deputy-inspectors of hospitals were nominated in 1805. Sir JAMES M'GRIGOR, a distinguished graduate of Aberdeen was one of the first of those appointed. In 1794, he had referred to the difficulty in getting medical officers, and says: "It is not only in the sense of humanity, but in that of sound policy and real economy, that the State should provide able medical and surgical advice for the soldiers when sick or wounded. I look upon it to be an implied part of the compact of the citizens with the State that whoever enters the service of his country as a soldier, to fight its battles, should be provided with the same quantity of medical aid, when sick or wounded, which they enjoyed when a citizen."

As a result of the disaster to the Walcheren Expedition, important changes were made in the constitution of the Army Medical Department. The army Board was dissolved, and a director-general and principal inspector were appointed. Dr. WEIR was the first director-general.

During the Peninsular War, Sir JAMES M'GRIGOR induced the DUKE of WELLINGTON to mention in the *Gazette* the services of the medical officers. The DUKE did this, for the first time in the history of the army. In this war the want of an ambulance with the British army, and of a hospital corps to furnish the means of assisting and conveying the wounded, was very much felt. Sir JAMES M'GRIGOR was director-general for thirty-five years, and received during his term of office £2000 a year. He had the relative rank of major-general, and retired in 1851. Sir ANDREW SMITH, succeeded, and was called superintendent of the Army Medical Department. He received only £1200 a year. The organization of the Army Medical Department underwent no material change till the end of the Crimean War. The want of a properly trained corps was much felt, the bandsmen carrying off the wounded on stretchers. They had no special knowledge of how to give first aid to the wounded, and this necessarily increased the work of the medical officers. The department suffered in this general break-down of all the arrangements. Although individually the medical officers behaved well and did their part bravely, yet they were dreadfully hampered by the want of supplies and medical comforts. More than one medical officer took combatant rank, and afterwards commanded his regiment. Assistant-Surgeon WILSON, of the 7th Hussars, "with the greatest gallantry and coolness, assembled a few men of the Guards, and led them to the charge, and utterly routed and dispersed the Russians threatening the Duke of Cambridge's life, whose horse was killed under him. At the close of the day, Mr. WILSON, was called to the front of his regiment and publicly thanked for saving, in all probability, the DUKE'S life."

By the end of the Crimean War, the Medical Department was in a much better state of efficiency than it was at the beginning. A medical staff corps was formed, with distinctive uniform.

A Royal Commission had reported that the weakest point in the Medical Department of the Army was the want of prestige, to give the officers that due importance among their brethren, so essential to the efficient performance of military duties. In a memorial of the medical officers to the Secretary of War, they say: "We submit that we ought to be classed amongst the purely military branches, and reap our share of the honours accorded to them, the exclusion from which, in all campaigns, we deeply feel."

The corporations of Great Britain and Ireland expressed the opinion that—(1) "The existing regulations of the service did not appear to hold out sufficient encouragement, either by present or prospective remuneration and rank, to induce students of the higher order, as to education and attainments, to seek for these appointments"; and (2) "that considering the valuable services which, by universal acknowledgment, were rendered by the medical officers during the late campaign, their self-sacrifice, moral courage, and devotion to their arduous duties, under trying circumstances, the present seems a suitable opportunity for the recognition of the claims of this important branch of the service to higher status and emoluments." The Commission reported: "It is not, however, by money alone that the ablest and most accomplished men will be attracted to the army medical service; the rank, the position, and the honours which are to be obtained constitute perhaps, the stronger inducements to the higher class of minds."

When the commander-in-chief assumed command in 1855 of the Royal Artillery and Royal Engineers, Sir ANDREW SMITH, became "Director-General of the Army and Ordnance Departments."

At that time the rating of medical officers was as follows: namely, Inspector-General of Hospitals; Deputy-Inspector-General of Hospitals; Staff or Regimental Surgeon, after twenty years' service Surgeon-Major; and Staff or Regimental Assistant-Surgeon. Mr. ALEXANDER at this time was Director-General. In 1860 took place the first examination for entry into the Army Medical School, which was opened at Fort Pitt, Chatham. In 1878 a committee appointed by Lord CRANBROOK reported, amongst other points, in favour of (*a*) giving a new title to the army medical service, such as "Royal Army Surgeons," or "Royal Medical Staff"; (*b*) that the Army Departments should have no precedence *inter se*, but be arranged alphabetically; (*c*) that honours and good service pensions be bestowed on the scale applicable to combatants; (*d*) that the names of the Queen's honorary physicians and surgeons be printed in the *Army List*, immediately after those of Her Majesty's aides-de-camp. They further thought that the medical officers should be associated with the combatant rather than with the administrative services.

The regimental system was abolished in 1874. Medical officers now belonged to the Army Medical Department, and were only attached to regiments for duty. They wore a departmental uniform, and no longer the regimental uniform they formerly did. The reason of this change was mainly that it gave the department more elasticity. When officers belonged to a regiment, under the regimental system, there were usually a surgeon and two assistant surgeons in each regiment. On active service all these medical officers might not be required with their own regiment, while some other regiments might require more than their complement of medical officers, owing to the regiment being broken up into several detachments, or from some other cause. The medical officers could not be changed from one regiment to another as they were required. Under the departmental system this could be easily effected, as the medical officers did not belong to regiments but were only attached to them, and could at once be sent where required. At first the departmental uniform was scarlet, while the uniform of the Medical Staff Corps, which was under the command of the medical officers, was blue. Gradually the uniform of both officers and men was made the same, and a blue uniform adopted, as it is at the present time.

In 1880, Lord CAMPERDOWN's committee recommended that for the title "Medical Staff," which had two or three years before been introduced instead of the "Army Medical Department," the title "Royal Medical Staff" should be adopted, and that compound titles showing relative army rank, should be introduced. The titles were surgeon-general, surgeon-colonel, surgeon-lieutenant-colonel, surgeon-major, surgeon-captain, and surgeon-lieutenant. This recommendation was not at once agreed to, but a part of it, as far as titles and relative rank are concerned was introduced afterwards when Mr. STANHOPE was War Secretary. The titles used were changed slightly—surgeon major-general being employed instead of surgeon-general, and an additional grade, brigade-surgeon-lieutenant-colonel added.

In the month of April of this year the present Government promised to give medical rank and titles in their own corps, and, possibly put the medical staff corps on a footing somewhat similar to that of the Royal Engineers. It is presumed that medical officers will be styled captain or colonel, Medical Staff Corps, or possibly Royal Medical Corps. This latter is doubtful. The cumbrous compound titles will not be used, and medical officers will be called by titles which can be employed in the social circle and civil life, and will be thus placed on an equality with other officers. This is a point that army medical officers have contended for since the introduction of the departmental system. When medical officers were regimental officers the question of rank did not enter acutely into their consideration. If they were pleasant and made themselves agreeable, their position was assured. Being officers of their regiments, they took a great interest in all that concerned its welfare; they were members of the mess, and one of them was often president. Rank was not considered, and the want of titles was not felt. The medical officers of the navy are in that position now; they are officers of the ship, and rank does not come prominently forward. When, however, the Medical Department was formed, and medical officers were only attached to regiments, the want of distinct titles and rank was felt, and medical officers suffered under a disability which was the cause of much discontent. The desire for command outside their own corps has never been expressed—all that was contended for was substantive rank and title, which would convey to the mind of the soldier and the public an exact idea of the position of the officer in the army. The non-commissioned officers of the Medical Staff Corps, when promoted to commissioned rank, are called lieutenants and captains. Officers who have to do with the transport and the commissariat of the army, and who are not nearly so much exposed to the casualties of war as medical officers, have rank and titles. Even the bandmaster of the Guards ranks as a lieutenant in the army. Why were medical officers alone excluded from this, to which they felt themselves entitled?

The question of courts-martial, mixed boards, and some sanitary boards also required reconsideration. On these, medical officers have no seat, but are requested to attend to give evidence, and have no deliberative vote. The question of pay and pensions is not a burning one. The paucity of numbers renders medical officers liable to frequent changes of station, entailing much expense and great inconvenience. The same cause also leads to the time of service in India being too much prolonged. This further prevents medical officers having study-leave, to enable them at some civil hospital to go through the necessary study to keep themselves abreast of the advances in medicine and surgery. These and other causes, which need not be particularly mentioned here, have prevented men of ability and ambition seeking the medical service of the army as a career, who under more favourable conditions, might have been attracted to a service which in many ways might be most desirable.

If it be the duty of the Government to arm the soldiers of our army with the best weapons of defence as well as of offence, as every reasonable person will concede, it is surely their duty also to provide the best means of healing the soldier when stricken by disease or wounds in the service of his country, and to have a thoroughly

equipped, well trained, and contented medical department.

At the present crisis this can only be obtained by granting the privileges and status indicated in the preceding pages, the more especially when the demands are so moderate, easily given, and will lead to no increased cost to the country.

Since the above was written, Lord LANSDOWNE has intimated that the Government intend to grant definite rank and titles to the Medical Department. Medical officers of the army will now be styled Lieutenants, Captains, etc, up to the rank of Colonel. As the rank of General is to be reserved for those having army command, the highest title in the Medical Department will be Surgeon-General, ranking as Major-General, Her Majesty the Queen intends graciously to form the Medical Department into a Royal Corps, under the title of "The Royal Army Medical Corps." These important concessions should now cause the friction between the Government and the Medical Department of the army to cease, and lead to medical men of ability and position joining the army in sufficient numbers to fill all existing vacancies, and if necessary increasing the numbers of medical officers which will be required for the contemplated enlargement of the army.

The medical officers of the army and the profession generally are much indebted to Lord LANSDOWNE for his courage in making these important changes.

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INTESTINAL WORMS.

By SURGEON MAJOR R E. WRAFTR.

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THE presence of worms in the intestinal canal carries with it such decided evidence of the existence of disease, that it has from the earliest ages been a constant subject of investigation with medical writers. HIPPOCRATES and GALEN have written concerning worms; and in our own times the attention of many distinguished pathologists has been directed to the same inquiry. With all this, it is singular how little is really known concerning them which may illustrate their origin, or direct us in our methods of treatment. It is true, indeed, that their varieties and everything relating to their national history has been fully and ably detailed; but to the practitioner of medicine these are mere objects of curiosity, which may claim attention in an hour of leisure, but are wholly useless as applied to practice. That which to him would be desirable, a knowledge of the general pathology of worms, of the state of body in which they originate, of the symptoms which they immediately excite, and of the extent to which they influence the production, or modify the symptoms and progress of other diseases—is, it must be confessed, still involved in remote obscurity. Yet these are points, which will be found in practice, of essential importance, and the investigation of which appears to require only patient attention. We cannot doubt that the subject will some day receive that full investigation which it merits.

The intestinal canal in the human race is infested by five different kinds of worms *viz.*, the ascarides lumbricoides or large round worm, the ascarides vermicularis or common thread-worm, and three varieties of tænia, namely, tænia solium or common tape-worm, tænia medio-canellata or hookless tape-worm, and tænia lata or broad tape-worm, the latter almost peculiar to inhabitants of Switzerland, Russia, and Poland. Of these the two latter are so rare as not to require a detailed notice here. Our attention may be confined therefore to the three varieties well known under the familiar appellation of the round worm, the tape worm, and the thread-worm. In treating of them I shall briefly allude to such circumstances only in their history as appear susceptible of practical application.

1. The ascarides lumbricoides, or round worm, resembles in its general aspect the common earth-worm; but there are many points of difference between them, as well in their external appearance as in their internal structure. It is from eight to twelve inches in length or longer, and infests principally the small intestine. It sometimes ascends to the stomach, and has been found in the wind pipe, mouth or nostrils, a few instances occur of its being solitary. In the generality of cases, however, there are at least two, and occasionally thirty or shoals in number, they are much more common in the intestines of poor wretched and neglected children from 4 to 6 years of age than in those of persons full-grown or advanced in life, in fact, they are rarely met with after fifteen years of age.

2. The tænia, or tape-worm, white, flat, jointed, head small, triangular, flat and armed with hooks and suckers, is frequent in this country, both among children and adults. This worm is often very long, extending in many cases to twenty or thirty feet. It occupies the upper part of the intestines, and feeds on the chyle It is commonly imagined to be solitary, and has from this circumstance been called tænia solium. This is not, however, strictly the case. The detached joints of this worm measure on the average a quarter of an inch wide by half an inch long and have the appearance of gourd-seeds, and it has hence received the name of the vermis cucurbitinus. It has been supposed that each joint possesses a kind of independent life; but this notion is altogether unwarranted.

3. Ascarides vermicularis, or thread-worms commonly called seat worms, a small creeping animal about half an inch, or even more in length, having the appearance as its popular name implies, thread-like, inhabiting the lower bowel close to the fundament and remarkable for their very quick motion. Their true domicile is the mucus and thin faces of the rectum and colon, they occasionally also find their way into the vulva, vagina and urethra of female children. Mucus is probably the food by which they are nourished. Thread-worms are probably the most common of all intestinal parasites; they infest persons of all ages, but children much more frequently than adults, they are, however, never found in the sucking infant. When women are affected during pregnancy, there is tendency to slight fever after delivery, and in my experience their children incline to eczema or other cutaneous disorders.

Symptoms.—The symptoms occasioned by worms are often very indistinct. They may be characterized generally as those of dyspepsia, irregular action of the bowels and nervous irritation. A sense of tightness

across the epigastrium, with inability to swallow, although the appetite was good, were the chief symptoms of tape-worm in a very severe case occuring in adult life which in times past fell under my care. I am not aware that it is possible to distinguish between the symptoms occasioned by the round and tape-worm. It can only be stated generally that the former produces symptoms of greater intensity, and being so much more generally found in children than the tænia, may commonly be suspected at an early period of life.

In adults, on the other hand, affected by symptoms of worms, the presence of tænia is rendered probable. Children who are troubled with worms complain of a gnawing uneasy feeling about the stomach, which is removed or diminished by eating. The appetite is deranged and variable, often more than ordinarily voracious. The belly is hard and turned, there is picking of the nose, hiccup, disturbed sleep, and grinding of the teeth. The countenance acquires a peculiar character (pasty and sallow), not easily described, but well known to those who have the care of children. Irregularity of the pulse, a slow remitting fever, and emaciation, are also observable in some cases. The irritation which worms occasion in the delicate constitutions of children has frequently brought on symptoms marking an affection of the brain and nervous symptoms, such as giddiness, dilated pupils, and epileptic fits. Nothing perhaps more strikingly characterizes the presence of worms than certain anomalous symptoms, not observed in other diseases, or not accompanied by those which under common circumstances would appear along with them. A short, dry, sympathetic cough, or pains in the thorax without corresponding dyspnœa or affection of the pulse, are among the most unequivocal symptoms of worms which I have ever witnessed. In like manner, I have seen worms occasion every symptom of peritoneal inflammation, with the exception of hyperpyrexia. The difficulty of making an accurate diagnosis between the symptomatic nervous affections brought on by worms and genuine hydrocephalus has long been acknowledged. In many cases I presume it to be quite impossible, the two diseases existing together, and probably standing in the relation of cause and effect to each other. Worms will not only produce other diseases, but they will serve to modify the symptoms of such as may accidentally arise. This I have frequently noticed in the case of whooping-cough. It appears therefore difficult to assign any limits to the degree of constitutional disturbance which worms occasion. There can be no doubt that worms frequently exist in the intestines of adults (and even sometimes of children) for a very long time without giving rise to the least uneasiness. In this way only can we account for the extraordinary length which the tape-worm has frequently attained. In many cases the first notice of the complaint which the patient has, is the passing of some portions of the worm by stool. I have seen a person from whom they dropped in any exertion of walking. In other instances adults having worms suffer some of the inconveniences usually attendant on dyspepsia or colic. It is not often that the nervous system sympathizes at an advanced period of life. From incessant practice, medical men can tell many diseases by one look of the face, tongue and body, but the most experienced practitioner requires ocular proof of the presence of worms. From the foregoing it is evident that threads-worm especially worry infants; round worms trouble older children, and tape-worms as said before are rare in early life. Ascarides seldom occasion anything more than local uneasiness, a constant, often intolerable itching about the anus and pudenda, with a sense of heat in the parts, tenesmus, and slimy stools. These uneasy sensations almost always come on towards evening, and prevent sleep for several hours. Although ascarides do not produce much constitutional disturbance yet they have been known to give rise to itching of the nose, restlessness, headache, giddiness, and some symptoms of dyspepsia. They are easily got rid of for the time by some bitter or oily injection.

Pathology.—I have already had occasion to remark how little practically is known regarding the state of the general system, and of the intestinal canal in particular, which leads to the formation of worms, or encourages their lodgment. They are commonly met with in persons of weak, enfeebled, or irritable habits, and therefore prevail much more extensively in children than in adults, in women than in men. Yet many persons in the prime of life are subject to worms who have no obvious marks of general weakness about them. Further, it cannot be doubted that a weak state of the digestive organs is that which principally leads to the production of worms; and this, as we shall see, is an object of first importance with a view to treatment. The disposition to form worms, when once begun, is with difficulty removed. In some habits it appears to be almost hereditary, and this I have observed to apply more particularly to the case of tænia. There is nothing in all pathology more obscure than the origin of intestinal worms. The theory which ascribes them to wula (an egg) which are taken into the body along with the food and drink, and find a nidus in the mucus and imperfectly assimilated food of a weakened intestine, might be supported if we found such viparous animals in other situations. But this is not the case; they are incapable of existence for any length of time, except within a living animal body. Another supposition has also been stated that they are formed independent of ova, from matter or humours contained in the intestines, having previously no regular organization. This idea, however, is contrary to all analogy in the production of animals, where any satisfactory opportunity of investigating the subject exists. The origin of intestinal worms, therefore, is still, I am inclined to think involved in great difficulties, and probably may not soon have any satisfactory light thrown upon it, consequently we come to ask what are the causes of worms? The causes of worms in childhood are weak bowels. The ova introduced into the alimentary canal, probably with unripe fruit, raw vegetables, or with impure water, eating underdone pork and beef; an abundance of sweets; the neglecting of taking salt in the food. etc., one of the most frequent cause of tape-worm among Europeans is the eating of pork, more especially if it be underdone. Underdone pork is the most unwholesome food that can be eaten, and is the most frequent cause of tape-worm known, underdone beef also causes tape-worm; let the meat, therefore be well and properly cooked. These facts ought to be borne in mind by all, as prevention is always better than cure.

Treatment.—The treatment in worm cases has usually been conducted upon very empirical principles. The only object sought has been the expulsion of the worms, and this has in many instances been effected by medicines which have a tendency at the same time to weaken the action of the stomach and intestines, and thus to increase the disposition to form them. It would be superfluous and useless to enumerate all the anthelmintic remedies which have been recommended even upon high authority. Some of them are simply drastic cathartics, such as colocynth, scammony, aloes, calomel, and julap. These medicines in spite of their debilitating effects, are certainly of great importance, and it will be right in all cases to commence the treatment with some mixed purgative powder. That which operates quickly and which brings away most mucus will answer best. The legitimate reason indeed, for exhibiting active purges is to free the intestinal canal from that load of mucus in which the worms burrow, which is thrown out perhaps, in some measure, as a defence against them, but which in its turn interferes seriously with the process of digestion and prevents the due action of tonic remedies. The second class of anthelmintic medicines includes the oils, fixed and volatile, especially castor oil and oil of turpentine. They have been supposed to operate by blocking up the respiratory pores of the worms; but this theory can hardly be supported. The oil of turpentine, first recommended by Dr. FENWICK of Durham, in 1810, is undoubtedly the most certain of all the means we possess of directly removing worms. The full dose (in which it may safely be given even to children) is from four to six drachms, in milk, or mixed with peppermint water, either by means of mucilage or honey. It generally produces a slight stimulating effect that quickly passes off. The tænia seldom or never resists it. The practitioner will remember that this is of all worms the most difficult to remove. The round worm, on the other hand, possesses great sensibility, and is very easily got rid of; and hence it is that such a variety of medicines have been found useful in its cure.

The third class of vermifuge medicines includes those which are bitter, acrid, or astringent, and which may be imagined to act either by a direct effect upon the worm or more probably by virtue of some tonic property. Of this kind are the absinthium or wormwood, the artemisia santonicum or santonine, the male fern root, Rutæ, the Spigelia marilandica, Kumala, Kousso and Granati rud, cortex, the latter is an admirable remedy for tape-worm. The following is an old-fashioned form of worm powder, but it is effectual.

R	Fol. absinthæ	...	... ʒi
	„ Rutæ.		
	„ Sennæ.		
	„ Kousso	...	aa ʒss
	Pulv. Rhei Rad	...	... ʒi
	Croci (saffron)	...	... ʒss misce

Sumat. ʒij, vel ʒiv omni mane.

Lastly, there are certain anthelmintics admitted into common practice whose operation it would be difficult to explain on any ascertained principle, such as stanesacre seeds, strong brine, and assafœtida. Personally my faith is in male fern oil for tape-worm, santonine for round worms, and for thread-worms an injection of steel and quassia. Some powerful drugs have also been recommended with the view of poisoning the worm, such as tobacco, arsenic, and hellebore. Too much stress has perhaps been laid on the administration of these vermifuges. Practitioners seem to loose sight of those greater principles which should regulate their treatment, and which are fairly deducible from the views already taken of the habit of body in which worms appear. The principal object is to strengthen the system generally, and the digestive organs in particular, and to excite that energy in the constitution which may enable the intestines to expel the worms and to resist their subsequent formation. To attain these objects we proceed as in ordinary cases of dyspepsia. Digestion is to be promoted, in languid habits by the use of aromatics, bitters, and carminatives. A regular action of the bowels is to be kept up, and accumulation prevented, by laxative doses of Liquid Extract of cascara sagrada or any similar adjuvant. Lastly, the general system is to be strengthened by daily exercise in the open air, by the warm bath, and by the use of some mild preparation of iron, such as the Ferri Peroxide Hydrat, the Ferri tartaratum and the Tinct. Ferri. Perchloride. The following powder may be recommended for weakly children.

R	Ferri Tartaratæ	...	... gr. iii.
	Pulv. Rhei Rad	...	... gr. i.
	Quiniæ sulph.	...	... gr. i.

Pulv. Cinnam Comp. gr. ii. misce fiat pulvis, ter in die sumendus.

Dr. WARING in his valuable little book on Indian bazaar medicines recommends pumpkin seeds, betel-nut, garlic, butan seeds (pulas-ke-binj) vernonia seeds (Somraj Bukchi), the fresh milky juice of the unripe fruit of the papaw tree (Papaiyah), sulphur, etc. besides the advertised nostrums which are often considered powerful remedies and cures for worms, but there are no such specific cures, these nostrums being pernicious purgatives only. Prophylactics. Having regard to the development and manner in which intestinal worms gain access to the human body, the obvious means of prevention include (1) the purity of our drinking water; (2) the thorough washing of all uncooked vegetables with a stream of pure water, to carry off all deposits from the surface; (3) the thorough cooking of all meat, especially pork, from which tape-worms originate; (4) a liberal allowance of salt with the meals is also desirable. The stools of those suffering from worms should be disinfected and buried to prevent the spread of the disease by the ova being taken into the bodies of animals used as food such as the sheep, swine or oxen. Persons with worms should also always occupy separate beds or the malady may perhaps be incautiously communicated. Where convenient, it might be advisable somewhat to improve health first by a trip to the hills, and young medical men will doubtless be surprised to find how difficult it may be to effect a cure in worm cases.

several points. Her temperature in the mouth and in the axilla was 99°; whilst her rectal temperature, at the same time, was 105°. So also, in another case where the axilla and mouth showed a subnormal temperature the rectum registered 103° at the same moment. I believe the rectum is the proper place to take the temperature in such cases and were any one to tell me that he had seen a case of peritonitis with a subnormal temperature I should ask him 'where' the temperature was taken.

One of the most constant symptoms of acute septic peritonitis is acute intestinal obstruction. The intestine is very much like a knee-joint or hip-joint, when it becomes inflamed and ceases to move: so when its serous covering is inflamed the vermicular movements of the intestines cease and at some period or other all people with peritonitis cease to empty flatus and faeces out of their bowels, meanwhile the bacteria in the intestines continue their gas manufacture and the abdomen begins to distend. Hence many peritoneal abscesses contain not only pus but a large amount of gas also, and afford a resonance which may mislead those who are not acquainted with the cause.

Much rigidity of the abdomen means very marked and extensive peritonitis which is more than often beyond the reach of operation and the surgeon should not wait for such a forbidding sign as rigidity.

The point of the abdomen lying over an inflamed appendix (for instance) is immobile and this immobility very often points off hand to the seat of the septic peritonitis. Mr. Greig Smith calls attention to the extreme stillness and silence of the abdomen. In mechanical obstruction or in colic the intestines are 'on the move' and the stethoscope reveals all sorts of noises in them; but in peritonitis the coils of intestines *never* move and not a sound is heard; because as soon as the intestines become inflamed they are perfectly still.

The abdominal pains are of extreme importance, because they are the guide to the operations but they are pains which the surgeon can himself elicit. Patients nearly always refer the pain to the umbilicus, but pressure upon the linea semilunaris elicits very acute pain. Supposing pain cannot be detected over the lines a finger passed into the rectum and pushed up beyond the bladder is bound to elicit a shrill cry of agony, and disclose an indurated or elastic swelling.

In the female vaginal examination gives useful information. The uterus may be fixed or there may be extreme tenderness in Douglas' pouch. In very many of my cases of acute septic peritonitis the sepsis was traced to the Fallopian tubes, and pelvic abscesses of acute peritonitis often tend to bulge not only in Douglas's pouch but also underneath the left linea semilunaris.

In boys the appendix frequently lies in such a way that while its root is in the iliac fossa its free end hangs over into the pelvis so that the pus collects in there. Acute pain on micturition or an attack of retention of urine is often associated with this pelvic type of appendicitis but the doubt is easily removed by drawing off the water and seeing if the swelling still persists.

It is easy to understand that you may elicit no pain or tenderness in the front part of the abdomen, but very considerable tenderness and pain would be evident upon vaginal or rectal examination.

If a patient has passed a motion he has not got intestinal obstruction, but people with peritonitis sometimes pass a little flatus, which ought not to mislead you. In such a case it is wisest to clear up the diagnosis by ordering an enema of soap and water with castor oil and turpentine, which, if efficiently administered, ought to make the bowels act or bring away flatus; but if it fail to do so, do not hesitate to operate as soon as you possibly can. The risk of opening the abdomen, under modern methods, (fatality about 1 in 500) is a very minor one compared to the risk of leaving such cases alone, as they almost to a certainty die on the fifth day. The chief risk from laparotomy, if care were not sufficiently exercised, would be a ventral hernia.

I know some cases of chronic localised septic peritonitis do go for a long time and perhaps recover, but they do not come within my range this evening; I am dealing with those showing an exceedingly rapid pulse, a distended abdomen, constant vomiting and intestinal obstruction.

Supposing that the diagnosis of acute septic peritonitis had been arrived at, either local or diffuse, some attempt should be made to ascertain the source of infection of the peritoneum; though for operative purposes it is sufficiently practical to know that you have to deal with a case above or below the umbilicus.

A great deal has to be done before the operation is undertaken at all for though the operation is important it is a really only a part of the treatment and the real struggle begins after the operation is over. Nearly all of those who die succumb to some heart failure; the pulse runs up from 100 to 120 or 140 for a few hours and then suddenly ceases.

One of the great troubles with the anæsthetist is to keep the heart going during the operation, on which account I give the patient 1-20 grain of strychnine before, 1-50 during and another 1-50 grain after the operation.

To avoid shock it is very important to have the room hot, and, if possible, place the patient upon a hot-water bed or surround him (her) with hot-water bottles during the operation, shortly before which fill his (her) rectum full of hot brandy and water.

It is desirable, sometimes, to wash the stomach out lest the patient may vomit up all sorts of material during his anæsthesia, and run the risk of getting the contents of his stomach into his air passages.

In reference to the operation one of the first cares is to have all the appliances very hot and maintain the sponges and lotions at a temperature of 110°. The patient having been anæsthetized, the field of operation rendered aseptic, the routine procedure in very acute localised peritonitis is to cut down and open the abscess at once, and, if there are not many adhesions, remove a gangrenous appendix and concretions, but not to waste time looking for the appendix or tubes amongst a great many adhesions. Some surgeons confine their attention to cleaning out the abscess cavity with swabs or sponges. This may be well enough if there is a single abscess with well-marked walls; but in most of the acute fulminating cases there is not a distinct abscess wall. The other day I opened and

washed out an abscess under the liver, semilunaris; but in moving the intestines aside I came upon a second and further on a third collection of pus, and washed them out, I also irrigate these abscesses freely and treat an abscess inside the peritoneal cavity just as I would one in a person's arm. For washing out the abdomen I have used comparatively strong solutions of antiseptics and I choose the biniodide of mercury in preference, because it is one of the strongest and it does not combine with anything in the abdomen and probably any that is put in comes out again. These patients do not get mercurial poisoning. In my earlier cases—which have been my worst—I have freely let gas out of the intestines with a fine trocar as well as made cuts into the intestines to let out the fæces, and strange as it may seem these cases have got better while others have not. If you cut the intestinal wall while you have it in sight it is a perfectly innocuous proceeding; but it is bad surgery to return intestines (into the abdomen) which are distended with flatus. I think india-rubber tubes are the most comfortable for drainage purposes and if a glass drain is used I think it should be replaced at the end of 48 hours by an india-rubber tube which is gradually lessened.

In many cases the struggle only begins after the operation is over and it becomes necessary to flog the heart along for a few days, strychnine and brandy or ether and so forth will have to be given to keep the heart going. In other cases any attempt by the mouth causes and aggravates vomiting, doing more and more harm to the heart and killing the patient. In these cases *rectal* feeding is all important. First wash the rectum out with tepid water and as these patients—are usually very thirsty—one of their greatest troubles, leave half a pint of tepid water in the rectum after it has been washed out. This is absorbed and goes to relieve the patients' thirst. After twenty minutes a four ounce enema of good milk and meat essence *thoroughly* peptonised, should be put in. A little brandy may be used with these enemata; but the brandy *must* be GOOD as bad brandy so irritates the rectum as to make it refuse to hold enema. A good plan is to add 5 drops of landanum to cause the enema being retained.

I was taught that after strangulated hernia you must give opium to keep the intestines quiet and that in peritonitis you must do nothing which will make the intestines stir. He would be a very clever man who could make the intestines stir in a case of peritonitis and cannot think that in a case like this when it becomes a question of whether you will try to relieve the abdominal distension which is most difficult to get over and makes or mars a case——or will let the patient die without doing anything, that a dose of calomel makes much difference. If you are afraid of drugs by the mouth a great deal can be done by enemata. I am in the habit of giving patients calomel and following that up by enemata, by far the best of which for removing flatus is a soap and water enema with half an ounce (each) of castor oil and turpentine added to it, and to avoid sickness or faintness after the enema a dose of strychnine may be given.

As every now and then cases will go on quite well for several days and then will have a recrudescence, patients require a good deal of watching to know when a relapse is coming on. If the abdominal distension is never quite gone and the temperature has never quite fallen to normal, the pulse inevitably points out that *something* is wrong. I had a lady patient with septic peritonitis due to perforation of the appendix. Her pulse and temperature fell till the tenth day when she had a rigor and the pulse ran up to 120. She began to be a little sick and the lower part of her abdomen was a little tender while she had a collection of fluid in DOUGLAS' pouch where I afterwards opened a stinking abscess, when her pulse began to slow down and she convalesced.

There are cases in which a second operation may save the patients' life. Some of my cases were of the most desperate kind—moribund, in fact. In some the abdomen was distended, the pulse untountable at the wrist and the feet and hands cold, and yet I have operated upon them, let out pus, perhaps removed the appendix, washed out the abdomen, and have seen such cases recover even though they had gone so far that it was hard to think they had 'got a chance' and any body of common sense might have questioned the sanity of operating at such a stage.

I do not think a surgeon ought to think of himself altogether when he is dealing with such cases and my experiences have taught me to be *afraid* to say "No one has a chance of getting better from septic peritonitis." After her confinement a lady had sepsis of the uterus and Fallopian tubes—some one called it puerperal fever—and improving within a month under antistreptococcic serum was allowed to get up. That afternoon she had vomiting, diarrhœa and violent pain in the abdomen. At night her hands and feet became cold, she vomited continuously, had a distended abdomen and diarrhœa and she felt sure she was going to die. Obviously she was, but as I did not think it right to let her die with her abdomen full of pus I put her on a little truckle bed. I sat on a stool on one side while my assistant Mr. WADD knelt on the other, and Dr. MALCOLM gave the anæsthetic. There was an abscess in the left Fallopian tube through a hole in which pus was spurting and the peritoneum was injected, inflamed and contained a large quantity of pus. At this stage MALCOLM thought she was dead, but thinking it a pity to let her die like that I injected her (hypodermically) with brandy till I *thought* she moved, when in spite of Dr. MALCOLM'S "she is still too bad to go on." I poured a big basin of *hot* biniodide lotion—1 in 4000, into her abdomen, pulled the abscess up to the wound, opened it and fixed a drain. The wound was rapidly sutured up after which we cut her clothing off, covered her with blankets and surrounding her with hot bottles, began to inject strychnine and brandy again. She had a dreadful bout of vomiting; but she got quite well and I met her in the street the other day.

Since 1894 I have had 27 desperately bad cases of peritonitis—*i.e.*, in persons who were dying and apparently passed hope. Of these 13 got well after operation while 14 died; but of these latter one died on the operating table where I need not have put him were it not that I did not think it right to let him die with his abdomen full of pus. In another case there was a perforating ulcer of the duodenum in a person who was actually moribund

with [illegible] a young lady [illegible] and died; but within my hands: So that apparently each person in desperate straits has a fifty per cent. chance of recovery, and I may say in conclusion that if we approach this subject with unprejudiced minds, very much progress might be made in the early diagnosis of cases, also in their surgical treatment.

NOTES ON THE HEATON METHODS OF TREATING HERNIA.

By Thomas H. Manley, M.D.

New York.

It will be noted from the kindly reference to my work, by Professor Waugh, that some space is devoted to Heaton and his method of treating hernia, by the subcutaneous injections of astringents, but it would be remembered, that though Heaton was a regularly educated physician, he kept his career a secret for years, and his methods in many particulars were those of a quack; but he made a profound study of herniæ maladies and cured, or at least made the afflicted believe they were, by accessory measures, which stamped him as a master of his art.

Heaton selected his cases with consummate tact, and studied the patient as well as his infirmity. Realizing that the etiological foundation of hernia is constitutional, he utilized hygiene and psychologic measures with singular advantage. In the obese, he purged and reduced the diet. He confined many cases to bed and maintained regulated pressure over the bulging mass.

For years, he kept the composition of his "fluid," a profound secret; but these mysterious drops though ostensibly the magic remedy, were but an incident in the treatment. He made it quite an invariable rule, to insist on the continuous use of the truss after cure (?)

The Methods of Hernia Specialists.

We are often asked, if there is anything essentially different in the treatment of hernia, as employed by advertising specialists and the methods known to the profession generally.

So blatant are the specialists in their pretentions and so boastful in their assertions of rapid cure, that the conscientious physician becomes anxious to know if there is any better method that he can employ in justice to his patients.

We are, therefore, much gratified to be able to place before our readers the following article written by Prof. Wm. F. Waugh, who has taken pains to inform himself upon this subject, and whose opinion is valuable and decisive:

The inner history of the vast majority of the successful nostrums vended to the public would show that they are composed of ingredients perfectly well known to the medical profession. These keen-witted gentlemen get hold of a well designed prescription, perhaps originally put together by one of the great men of the profession, and exploit it with all the tremendous power of printer's ink. When the formula is made known every one is surprised to find that the ingredients are those in every day use. A highly successful advertiser once told me he proposed to put on the market a series of "best remedies" for every disease, for the use of physicians. "Will you keep the [illegible] secret?" I asked. "Certainly," he replied, "the best remedy is often the one most commonly used, but if the doctor knows, for instance, that we are giving him salicylates for rheumatism he will not buy it; wherein, if we disguise it so that he does not recognize it, he will use it forever."

Some time ago my attention was attracted to the flaring posters announcing the merits of a new and wonderful method of treating hernia, producing a radical cure without the use of knife or ligature, etc. The company had opened its offices in this city, as well as in several others. Desirous of ascertaining whether there was really a new discovery at the bottom of the scheme, I sent one of my assistants to interview the advertisers. He found them occupying a nicely furnished suite of offices in one of our prominent office buildings. All the appointments were quiet, in good taste, such as would probably impress the visitor favorably. None of those, waiting in the reception room, had the appearance of belonging to the class who could pay the charges of the company. When his turn came, our representative was ushered into the doctor's office. The ostensible object of the visit was stated; an uncle of the visitor was affected with hernia. The doctor would not say whether the case could be cured until he had had an opportunity to examine it personally. Not all cases were suited to this method of treatment; in fact a careful selection was made and only such cases were accepted as he felt so confident of curing that he was willing to guarantee that happy result. In such a case the money could be deposited in a bank, subject to the terms of the guarantee; in case of failure to be returned to the patient, less the costs of drugs, apparatus, etc., which had been employed in the treatment of the case. This deduction was left indeterminate, and could of course, be made large or small at the discretion of the company. My assistant was unable to secure a copy of the guarantee, and I am therefore unable to say whether it really guaranteed anything at all. I doubt if one of these advertising concerns puts out a guarantee that really binds it to anything whatever; and while people have sued to recover their money under it, I have never known a case in which any money was recovered. In this I do not refer to the company under discussion.

The cost of treatment varied from $50 to $500, according to the case; and the doctor very wisely declined to commit himself more definitely until he had an opportunity to "size up" his customer.

My representative inquired what was the nature of the treatment, whether any cutting were done, what danger to life or as to permanent disability was involved, and what was the chance of success. To this the doctor replied that no cutting whatever was done in any case accepted by them, that no danger to life or disability was incurred, and that they expected to cure every case accepted by them, and actually did cure about 97 per cent. A process was employed by which the tissues covering the hernial aperture were condensed into a substance *tougher than leather*. The cure would be aided by the use of a special truss of their own invention, for a longer or shorter period.

The "leather-like" consistence imparted to the tissues

brings us up once to HEATON'S method of preparing a preparation of oak bark.

Our readers will see that there is here no new discovery but that these people have simply appropriated HEATON'S method, which is perfectly well known to every surgeon, and have palmed it off upon the public as something of marvelous efficiency, the secret of which is known only to themselves. There is no special secret about the method, and no special choice as to the fluid to be employed. Any agent that will cause the exudation of coagulable lymph in and around the canal, if aseptic and employed with aseptic precautions, will accomplish the object; HEATON'S formula may be used until experience has suggested a better one.

The opinion of most surgeons is that the method has a very limited application. MANLEY, in his really valuable book on hernia, has this to say of the merits of the injection method:—"Warren injected tincture of iodine, sprayed along the interior of the empty, elongated neck, or into the walls of it, or just outside, into the interspace. GAY gave this mode a thorough trial in eighteen cases; with five cures, eight benefited, and five failures." But HEATON appears to have had better success, for MANLEY says: "Little wonder that he was lionized, for those who came to him with large, old, incoercible hernias, for which the most eminent surgeons could offer nothing better than a stiff truss, left HEATON cured." HEATON insisted that the four symptoms of inflammation, heat, pain, redness, and swelling, must not be caused, but simply that grade of irritation that induces the exudation of lymph MANLEY limits its use to indirect inguinal hernias, of small volume when the sac and contents can be wholly returned. He lays great stress upon absolute rest for a week or more after the operation, with low diet; but the miracle-mongers state that their treatment does not interfere with the patient's going to his business. It is scarcely fair to judge of HEATON'S method by the results obtained by injecting some other fluid, like iodine, and disregarding the precautions upon which he insisted. He also required a truss to be worn for some time after the operation. It would seem that up to the present nothing better than HEATON'S original method has been devised by the regular profession or by the advertisers, and that there is more value in it than has been generally admitted.—Secret Nostrums and Systems.

THE INCUBATION PERIOD OF MALARIA EXPERIMENTALLY LENGTHENED.

CELLI and SANTORINI by rendering animals somewhat immune with malarial parasites, and by taking their serum and injecting it into patients before inoculation, have been able to delay the period of incubation of the parasites from an average of thirteen days to an average of twenty-five days; that is to say, the incubation period has been doubled. In autumnal fever the incubation period has been found to range from two to five days, the mean being three days. Men who were treated with serum of immunised animals, and afterward infected with malarial poison, were found to have an incubation period ranging from six to seventeen days, but the investigators were not able to prevent altogether the infection by this method of treatment even in a single case.—*Med. News.*

[redacted]

ILLUSTRATIVE CASES OF SEVERE CORNEAL ULCERATION AND ABSCESS.

BY WM. HUNTLY, M.A., M.D., F.R.C.
Nusseerabad.

THE readers of the *Record* must have enjoyed the comprehensive lectures of Dr. CALEB on corneal affections, and the following five cases will serve to illustrate the subject in a practical way.

It may be laid down to begin with that corneal ulceration and abscess will have made some progress before the average native patient thinks of resorting to western treatment. Anything from a neem leaf or two, or a peacock's feather, up to a general circumambulation of the various presiding deities in the neighbourhood will be tried; I remember meeting a villager with an anterior synechia and leucoma carrying a young goat as a gift for the removal of the disease. When all or most things have been tried in vain, they present themselves with doubting faith to be treated by western methods.

The chances are that the case is seen some time after perforation, when the prolapse is well established and the patient has been suffering agonising pain in the eye and forehead.

Five different cases came into my hands recently, and the following brief notes may help some of your readers to save eyes in a like condition.

Case I.—Sent from a neighbouring town. Left eye with perforation and prolapse near the centre but below the horizontal meridian of the cornea.

Cocaine was instilled, a Graefe was passed through the prolapse on the side near the centre and then the prolapse was seized with iridectomy forceps, and the iris pulled out untill sufficient had come out to prevent there being enough left to prolapse a second time. This whole portion was excised and a pad and bandage applied. Some days later as the centre of the pupil was interfered with by an old leucomatous patch, iridectomy was performed in the upper and inner aspect of the cornea, and the result to the patient was splendid.

Case II.—This case came when the perforation was only beginning, and in this case an incision with a Graefe followed by ordinary treatment saved the eye.

Case III.—Pain drove this patient to the hospital. Intense pericorneal injection and general conjunctival inflammation was seen on opening the lids of the right eye. Towards the lower and right side of the cornea there was extensive infiltration and the cornea at this point was somewhat raised. The excessive pain was put down as due to the tension caused by the suppurative process going on in the cornea. As the knife was passed through the layers of the cornea, a tiny jet of purulent fluid rose from the incision. The relief to the pain was soon felt and gradually the abscess cavity threw out a small slough and filled up.

Case IV.—This case came to hand only two days after case three. It looked similar to case three and the differences were such as to be better appreciated by a comparti-

[illegible]. The infiltration, redness and pain were slight. On admission however there was some muddiness of the aqueous and some pus in the anterior chamber.

The cornea was incised and a small necrosed portion extracted. The cautery was applied to the indurated portions of the infiltration near the lower border of the cornea. On the following morning the hypopion had disappeared and the recovery went on uninterruptedly.

Case V—This was perhaps the most interesting case of the series. When the patient presented himself he had (I) a perforation and prolapse in the upper portion of (II) a large ragged phagedenic ulcer situated on the nasal aspect of the cornea, and (III) added to this there was hypopion.

The patient was immediately put on the operating table, the ulcer was incised a little to get a firm grip of the prolapse with the iridectomy forceps and a large bit of the iris drawn out and excised. The cautery was then used to destroy the ragged and infective edges of the ulcer. Hypopion soon disappeared, the ulcer has all but filled up and the patient, an intelligent man, knows well that his eye has been saved to him.

A CASE ILLUSTRATING THE DIAGNOSIS OF PYELITIS.*

By John Smyth, M D., Surgeon-Major, I. M. S.
Mysore.

Although the Hunterian Lectures for this year are by one of the masters of our art, and are at once a veritable storehouse of sound advice and a brilliant record of their author's work, I may yet be permitted to draw attention to what has appeared to me to be a defect.

In the technique for the operation of exploring the kidney and ureter (*British Medical Journal*, 23rd April, p. 1063) the author seems to throw cold water on the examination of bladder by electric light "It is rarely needful or helpful, and as a rule causes an unnecessary waste of time" Later on he refers to the difficulty of deciding which kidney is affected in certain cases of calculous anuria, and states that "the cystoscope is quite unnecessary in those cases." At p. 939 (9th April) he quotes a case in which his patient was passing muco-pus, but in which he was not certain which was the affected kidney; so he cut down on the wrong one It appears to me the cystoscope would have prevented such a serious procedure as this. The following case from my own practice is in point:

A. B., about 50 years old, had been passing muco-pus and irrigating his bladder for about five years before I saw him, his medical advisers believing he had cystitis. What struck me at once during my examination of him was his statement · "I declare I have not, nor have I ever had, pain." So it struck me that the pus was, at any rate, not cystic in origin. There was no tenderness nor enlargement of the kidneys. But I examined him with the cystoscope, and saw the pus pouring from the left ureter like thick custard. I was then obliged to leave the station, so I sent my patient home and Mr. H. Fenwick removed the calculus from the left kidney. I may add that I tried, but failed, to make out the stone with an X-ray apparatus although the coil gave a 14-inch spark.

In regard to the waste of time which Mr. Mouat refers to in connection with electric endoscopy, it would appear that the time required must vary greatly; but in the case I have quoted it only took about two minutes, no anæsthetic being necessary, and I do not recollect Mr. H. Fenwick ever spending more than five minutes over the actual electrical examination.

* Reproduced from the *British Medical Journal* by request.

REPORT ON A CASE OF GUNSHOT WOUND OF THROAT RECEIVED IN ACTION IN TIRAH: RECOVERY.*

By Major W. C. T. Poole, M B., F.R.C.S.I., R A.M.C.
British General Hospital (No. 3), Nowshera, Punjab, India.

Sergeant-drummer S. M., age 33, eighteen years' service, 1st Battalion Northampton Regiment, was wounded in the neck on 12th December, 1897, whilst marching to the relief of Saraghari. The bullet entered the right side of the neck on a level with the inner end of the right clavicle, and came out on the opposite side on a level with the inner end of the left clavicle, partially severing the trachea as it passed. The wound on the right side of the neck was small, whereas that on the left side was large and exposed some of the large blood vessels of the neck, and from the general appearance of the wound the projectile appears to have been a Martini Henry bullet.

He was admitted into No. 3 British General Hospital, Nowshera, on 25th December 1897, thirteen days after the infliction of the injury On arrival he was in a very critical state, the wounds were in a sloughing condition, septic pneumonia was threatening, his breath was fœtid. and he was unable to partake of nourishment by the mouth.

Treatment.—(*a*) Dietetic: Rectal alimentation for about one week, afterwards small quantities of milk and chicken broth by the mouth (*b*) Surgical: Inhalations of eucalyptus oil to cleanse the inside of the throat Local applications of tinct. benzoin co, with an outward application of boric lint and wool.

He made a perfect recovery, and was discharged from hospital invalided to Netley on February 16th, 1898, 65 days after admission, and was able to partake of solids before he left. It was highly satisfactory to note the rapidity with which the healing process responded to treatment.

* Reproduced from the *British Medical Journal* by request.

THE

Indian Medical Record.

16th August 1898.

THE SERUM TREATMENT OF INFECTIOUS DISEASE. IS IT BASED UPON SOUND PREMISES?

It is in the serum treatment of disease that the bacteriological developments of the present day find their highest expression; it is the ultimate, and most important result of countless investigations and of much patient labour and careful research.

Its evolution has been gradual, the data upon which it rests have been almost universally accepted as facts, and the inferences drawn from them have appeared to be almost unassailable.

Those who read the articles appearing at present in this journal by Dr. HEDDÆUS on the "Serum Therapie of Traumatic Tetanus," will see that the beneficial results confidently expected and phophecied from this new treatment are practically unlimited. By many shrewd observers it seems to be regarded as the modern form of the Elixir Vitæ

Since the introduction of the treatment of diphtheria and traumatic tetanus by antitoxic serums in Berlin in in 1891, an immense impulse has been given to this new departure in therapeutics, and already most of the infectious diseases have been experimented upon.

As to the good results that have already accrued there are many to bear witness Still it is to be remembered, that even with respect to diphtheria, the disease which has led to the largest accumulation of experience, competent observers are to be found who regard the question as at least unproven

A notable sceptic regarding the success of sero-therapy in diphtheria is Dr LENNOX BROWN of London and with him we have M KASSOWITZ of Vienna, whose remarks on the subject will be found in another part of this issue

It is however no part of our present intention to enter into this part of the question, time alone can make the truth clear, at the same time we would direct attention to the remarks of M KASSOWITZ wherein are exposed many of the fallacies which tend to vitiate a large proportion of the statistics relating to the success of the treatment of diphtheria by antitoxic serum.

We have to deal with another matter. It appears to have been very generally overlooked that the result of certain experiments which have been published lately in France, is to shake the structure of serum therapy to its foundations.

These experiments are simple and unequivocal and it is is impossible to deny their importance or their far reaching effects.

Before detailing them it may be as well to briefly consider the rationale of serum therapy.

The fascinating and perplexing study of immunity may be said to be the parent stock from which serum therapy sprung.

It has long been a matter of common knowledge that one attack of an infectious disease gives to the survivor [illegible] against another. The explanation of this phenomenon has been eagerly sought. For a long time we had to be content with the theory of the exhaustion of the soil, but we can now laugh heartily at the platitudes and analogies which were thrust upon us to make us believe that the seeds of disease acted upon our bodies as the growth of plants does, or was said to do, upon the soil; that the disease used up all the special material that was necessary for its existence, that it then died out and could consequently never again take root, flourish in such an exhausted medium.

A new direction was given to the speculations of investigators by the discovery that the blood itself possessed bactericidal powers, that is, that innate in the body itself was the power of grappling with, and often destroying the introduced poisons of infectious diseases.

The fact that different animals are susceptible to the different infectious diseases in different degrees, provided an almost unlimited amount of material for experiments upon these lines.

It was soon made evident that this bactericidal power could be produced in an animal that did not naturally possess it, this was of course an immense step.

A susceptible animal was taken, at first very small, then gradually increasing quantities of the specific bacilli of the disease were introduced into the system until at length the animal emerged immune Evidently a certain material had been produced in the body of the animal which was antagonistic to the specific poison of the disease experimented on.

The final step was to show that if blood serum was taken from this animal and injected into another of the same species a like immunity was conferred upon it.

In these few facts we have the whole mystery of the serum treatment of infectious disease.

Take the case of diphtheria, large amounts of the specific bacillus of diphtheria are cultivated, they are then injected intravenously into a horse. When this has been repeated several times the horse is bled, his blood serum is carefully filtered, it possesses the power of neutralising the diphtheria bacillus and when injected into the human being in suitable doses, is believed to cure the disease and also to give immunity against it

The vague terms, toxins and antitoxins, are used to designate the specific bacilli and their products, and the antagonistic material that is created in the body respectively, the present state of our ignorance regarding the nature and mode of action of these products renders any more intelligible or explicit nomenclature impossible.

Such is of necessity an incomplete and bald outline of the fabric of serum therapy, but there are other important and closely associated matters to be dealt with.

We are to believe that every infectious disease has its own special specific micro-organism, and that such micro-organism develops its own special and specific toxin and causes to be produced it own specific antitoxin; that is, a toxin and an antitoxin peculiar to itself alone, and which cannot by any possible means be produced either by any other micro-organism, or by any other means whatever.

To admit that such is not the case is to rob serum therapy of its fundamental data, and to reduce the conclu-

[illegible] is founded from a condition of [illegible] complication in that of an ill defined and [illegible] hypothesis.

This question of specificness is all important, it is the heart of the matter, yet it is this very fact of specificness which the researches we allude to have completely over thrown.

Regarding the specific nature of the pathogenic bacilli and their products, we may refer to the very remarkable and interesting reaction, known as PFEIFFER'S reaction, which ever since its discovery a very few years ago has attracted a large amount of attention and appears to be strongly corroborative both of the specific nature of bacilli and their products, and of the accuracy of the conclusions leading up to serum therapy.

PFEIFFER'S reaction is as follows, if an animal is artificially rendered immune to a certain disease and then some of its blood serum taken and added to a living cultivation, in broth, of the specific bacillus of that disease, the result is that the bacilli are affected in a curious and distinctive manner, from being evenly distributed throughout the broth, and in active motion, if motile, they begin to collect together, and as it were to stick together, in groups or clusters, to lose all activity and to be apparently destroyed.

This is supposed to be due to what is termed the agglutinating material in the serum, and it is called the agglutinative reaction.

One bacillus will not react in this way to products produced in the animal by another bacillus.

The application of PFEIFFER'S reaction has been widely extended, it is evident that in it we have a means of detecting and differentiating between different pathogenic bacilli, it is therefore an exact list for an unknown variety of bacillus.

Further, it is also a test for the disease, and WIDAL'S application of the method to typhoid fever has attracted an unprecedented amount of attention over the whole world; in this case the serum of the infected individual is taken and added to a fresh cultivation of the typhoid bacillus, if it exercises this specific agglutinating action the disease is declared to be Typhoid fever.

This is a most important and practical development of PFEIFFER'S discovery, and the accuracy of its results in general have been largely vouched for

The nature and the exact import of this reaction in typhoid fever is still a subject of discussion. M. GOUBER holds it to be a reaction of immunity. WIDAL considers that it has nothing to do with immunity, but that it is primarily a reaction of the period of infection. "The agglutinative reaction," he says, "is often more intense at the beginning of the disease than at its height or at its decline, it diminishes and frequently disappears in man from the first period of convalescence, that is to say when immunity is most perfect."

Apparently M. PAUL COURMONT has arrived at much the same conclusion from his experiments, he calls it a reaction of defence, a defensive action on the part of the organism against the invading poison.

It is however well known that WIDAL'S reaction is not [illegible] as precise and accurate as it claims to be as the [illegible] of the infallible specificness of the bacilli and their products; the reaction has frequently occurred in diseases other than typhoid, and in undoubted typhoid it has been proved to be sometimes absent.

Some illumination is given to this part of the subject by the researches of M. BECO which formed the thesis of a communication made to the Belgian Academy of medecine, by M VAULAIR, which is given in *La Semaine Medicale*, 4th June 1898.

M. BECO'S work he tells us "comprises a series of researches undertaken with the object of settling definitely the value of serum-reaction. In a preliminary memoir (*La Semaine Medicale* p. 15. 1897) the author has already made known a number of facts which tend to show that this reaction is not specific. His further researches confirm his earlier conclusions in every particular.

The majority of writers look upon the agglutination of the typhoid bacillus (bacillus d'Erberth) as a specific phenomenon."

"M. BECO obtained agglutinating material from the following different sources; definite chemical substances as formaline or fuchsine, serum from typhoid patients, serum from an animal experimentally injected, or vaccinated. His object was to see if these substances acted only on the typhoid bacillus."

"By plate cultivation he isolated a large number of varieties of bacilli belonging to the groups of coli bacilli."

On these isolated varieties he tried the effects of formaline, nearly one third gave the agglutinative reaction to an equal extent with an authentic sample of typhoid bacilli used as a control experiment."

"He then collected several of the varieties of coli bacilli which gave different types of agglutination with formaline, and submitted them to the action of typhoid serum, and of serum obtained in the course of experimental vaccination, they agglutinated readily."

"From these facts he naturally concludes that far from being a criterion for the differentiation between typhoid and coli bacilli, agglutination is only of secondary importance."

These experiments show that the agglutinative reaction is useless in distinguishing between typhoid bacilli and coli bacilli, and thus throw considerable doubt upon the theory of specificness; considering however the close resemblance between these two varieties, and the various theories held concerning them, this may not appear to entirely upset the general truth of the doctrine, and to many it may appear quite unimportant and capable of explanation.

This is not the case however with the following researches which are the ones we have previously alluded to, and in the first place to show the hold that the specific doctrine has taken and the importance attached to it we will give a very neat and concise definition of it which has been formulated by NICOLLE. He says the agglutinative power is the signature of the passage into the organism of the specifically agglutinated substance."

M. Arloing made the following communication to the French Academy of Science on the 31st May last. "In my note of the 16th May 1898, I have shown that the blood serum of the goat acquired the power of agglutinating rapidly and completely Koch's bacillus suspended in a homogenous emulsion, when the animal had received a series of subcutaneous injections of tuberculine, or of the bacilli in a more or less virulent state. I have also shown that the blood of the goat and rabbit could be rapidly endowed with this property by means of a few injections.

But I have found out that the blood of the goat acquires similar properties under the influence of repeated injections of Eucalyptol, of Guaiacol, of Creasote and of the liquid of Mialhe (corrosive sublimate), the last being injected in the natural state, the others preferably mixed with olive oil.

The goats from which I obtained the serum which agglutinated Koch's bacillus had been for a long time under the influence of these substances.

The injections were graduated, stopped and continued so as to preserve the animal in as good a state of health as possible.

On the 1st April 1898, I bled four of the goats and obtained four samples of serum, a comparative test was made between these serums, and the serum of goats subjected to tuberculine and to Koch's bacillus in the proportion of $\frac{1}{10}$, all possessed the agglutinating power.

The goats were bled again on the 20th May 1898, and the samples then obtained possessed the same agglutinating power as the others.

An equal volume of these serums agglutinate slightly less actively than the serum derived from goat subjected to tuberculine and to Koch's bacillus.

The difference, however, is very slight in the case of the serum derived from animals injected with Mialhe's liquid.

The presence of the agglutinating material in the blood is due to a reaction of the living organism produced by the action of these four chemical substances, for no agglutination is produced by the addition, to emulsions of Koch's bacillus, of $\frac{1}{10}$ or $\frac{1}{5}$ part of saturated aqueous solutions of Eucalyptol, Guaiacol or Creasote, or of equal parts of Mialhe's liquid. It is evident then that the agglutinating power is created by chemical substances which do not themselves possess it.

The effect upon Koch's bacillus is identical with that produced by the agglutinating material provoked by the introduction of specific substances into the organism."

Here then we see that the agglutinating properties so long and fervently believed to be the specific production of pathogenic bacilli, can be produced equally well and apparently in the same way by several different chemical substances. This discovery at a blow removes the scientific veil from the face of serum therapy and reveals the unwelcome features of empiricism.

[illegible] FOR INDIAN SERVICE.

Amongst all the comments and criticisms that the measures adopted by Government to keep the plague in check have called forth from time to time, and which have occupied a large portion of the various sections of the press; we do not remember that particular attention has been called to the strange and glaring anomaly of importing medical men and women and nurses, from England.

This action was unnecessary and uncalled for, and must be condemned as a mistake in every way.

We would very much like to know the inner history of this move and the name of its inspirer. In the absence of this knowledge we can only assume that if not originally suggested by the Director-General of the Indian Medical Service it at least had his approval and sanction.

This, however, is a point upon which we can feel no degree of certainty, we know not what amount of influence the opinions of the Director-General have in the Councils of the Government, for all we know he may never have been asked, and the step may have been taken merely to pander to the wishes of some very superior individual who was quite incompetent to form an opinion of any value on the subject.

It is a pity that in things medical, the doctors are not allowed to run their own show, but the history of plague administration affords numerous examples of the reverse, and proves that whenever possible, the doctors are thrust on one side to make way for individuals in some more favoured service.

Is it said that it was *neccesary* to import doctors and nurses from England, because none could be procured in India? Such a statement would be absolutely false, for they can be obtained in any number required.

Is it maintained that they were not as capable of dealing with plague as those freshly imported? This position can be shown to be as groundless as the other.

Let us first consider the Doctors that were imported.

We have never heard that any of those medical men and women who were sent out by the India Office were experts on plague, far indeed from this, we are not aware that any of them have ever seen a single case.

In the matter of experience then they have absolutely nothing to recommend them They were sent out to tackle a disease that was unknown to them, and in the first place they had to become acquainted with it.

In this respect they had certainly no advantages over the Doctors who could have been obtained in India, while on the other hand they suffered from many disqualifications.

They were new to the country and untried to the climate, so that it might easily have been anticipated that they would more readily have become incapacitated through illness.

They were ignorant of the language, and therefore unable to communicate directly with those amongst whom their work chiefly lay. How they must have been handicapped by their deficiency in this respect is so obvious, that comment is unnecessary; to state the fact is enough.

They were unaccustomed to deal with coloured people, and every medical man will acknowledge the difference

that [illegible] with sickness. In fact we have several times heard doctors remark that the first time they were called upon to treat a dark skinned person, whether Indian or African, they felt as much at sea as if they were investigating the disease of some strange animal.

But the disability, that will be acknowledged, by all who know anything, or have read anything about the natives of India, to be the greatest and to stand out in the highest relief, is that those selected, were totally unacquainted with the manners and customs, the thousand and one peculiarities and caste prejudices which distinguish and form as it were the life-blood of the people of India.

When we consider all these things, there can no longer be any room for wonder or surprise that difficulties should have arisen, that plague doctors should have been mobbed, camps destroyed, and turbulence and riots manifest everywhere.

As for the Nurses it is not necessary to say much, in all matters of inexperience and ignorance they were on a par with the Doctors; and let anyone ask the question of himself, how he would like if he were sick unto death, to be dependent for all his wants upon a person, an alien in every respect, foreign in aspect, colour, religion, language, instincts and thought, would he like to be nursed by such a one?

Who can wonder that the sick were unwilling to leave their homes and their friends to seek for treatment in the Government camps and hospitals?

There is however another aspect of the case, the financial one. The financial difficulties of the Indian Government is an ever verdant theme, like the poor, it is always with us, it has passed into a proverb. But if one were called upon to express an opinion on the subject from a study of its actions, one would easily be led to believe that the Government was suffering from nothing but a superabundancy of wealth, that it was overburdened with affluence, and like a prodigal, was only anxious to squander it in all sorts of foolish ways.

Nurses could have been obtained in India for Rs. 80 to Rs. 100 a month, the imported nurses were given Rs. 200 to Rs. 300 with furnished quarters, free passages etc.

The imported doctors were engaged at Rs. 500 a month while there were men in India with British qualifications, and others with university degrees, willing to work for Rs. 200 to Rs. 300 a month.

All this extra expense was unnecessary and was certainly not justified by the superiority of the article secured.

Here in Calcutta at the present moment we are supporting a large staff of plague doctors and nurses who have nothing to do, and we are informed by the official spokesman of the Bengal Legislative Assembly, that the intention is to maintain this idle establishment until next cold weather, in case the plague should then become epidemic. This is foresight with a vengeance! But the soundness of the policy is another question, upon which we unhesitatingly pass an unfavourable opinion.

This action of the Government may be taken to imply the gravest censure upon the Indian Universities, upon every Indian College and Hospital, and as condemnatory of every state agency and agent of the Indian Medical Service, that it employs in the educational institutions of which it holds a monopoly.

It is a sad confession of failure that after all these years, and the vast sums spent upon education, that the Government is unable to find amongst all its graduates and diplomates a few sufficiently well qualified to be employed in plague work. Their own standard is not sufficiently high.

Something of this kind we have repeated over and over again *ad nauseam*, but to ears that have chosen to be deaf. We have urged and brought forward cogent reasons for the necessity of reform, without response; and we now view with complacency the Nemesis that has forced those in authority to place in our hands, weapons even stronger than any we have forged for ourselves.

Let it then be known once and for all, let it be proclaimed from the house tops! that the training and teaching of medical students and nurses in the Indian Universities and Government Colleges is a farce, that the medical education they receive is worthless, that the Government stamp they bear in their degrees and qualifications is base, it will not pass for current coin, that there is no employment, no future, no prospects, before the Indian graduate.

And all this the Government has tacitly admitted by having had recourse to the English market to provide themselves with a few Doctors, and Nurses even, to look after their plague cases.

It is in the saddest spirit that we see the Government of the country doing all it can to degrade its own students, and closing every door to the advancement of Indian Medicine. This last stroke is a deadly one and must bear heavily upon those who have the best interests of Government at heart.

We cannot think that the Director-General of the Indian Medical Service has any responsibility in this matter. He at least must be fully acquainted with the different teaching institutions throughout the country, he must be aware that competent men and women could have easily been found in any number for this work, and also that such nurses were actually being employed and giving every satisfaction, when they were dismissed to make way for the new arrivals.

If the Director-General with all this knowledge, still approved of the step, it merely clenches the argument, that the state of medical education in India is rotten, and urgently needs to be regenerated.

As for the Universities, who without any protest, permit such slights to be put upon their graduates, what can be said of them? They are dead or drugged, or huddled together in terrified silence like sparrows under the hovering hawk of officialism.

THE PRESENT POSITION OF [illegible] TREATMENT.*

IV.

5th February.—This morning the pulse is less frequent than yesterday, 120 in the minute. The patient feels very weak. The spasms are still as severe as they were during the night but they are less frequent, about every 4 to 5 minutes, opisthotonos is still present.

The trismus is not so severe during the spasm, and in the interval it is certainly less than yesterday.

Yesterday evening the teeth were clenched so tightly that no effort of the patient could separate them, this morning however the finger tip can be introduced between them.

Any attempt to swallow quickly induces spasm of the muscles of deglutition and respiration, and on this account the patient refuses to drink.

In addition to nutrient enemata, enemata of wine and water were twice administered, also of chloral, they were well retained.

Occasionally a fit of coughing occurs with an increased collection of phlegm, which the patient with great difficulty presses out between the teeth.

After the chloral he was quiet for several hours and appeared to slumber, the spasms grew less frequent, when the effect passed off. Tinct. Opii. was injected subcutaneously.

In the course of the afternoon there was no change in his condition. There was no aggravation, and no other muscles were affected, at 8 p. m. there was a sudden accession of spasm, with respiratory troubles and cyanosis of the face; no stridor, but spasm of the diaphragm is present. He rested for a short time after a hypodermic injection of morphia, by means of a raised pillow he was placed in a half sitting position and once again the breathing became easy. After about half-an-hour the spasm completely disappeared and the patient slumbered, he groans at each inspiration as if in pain, but says he has no pain when questioned.

As it was suspected that toxin was being conveyed into the system from the original lesion which had not been completely destroyed, I anæsthetised the wound with cocaine and thoroughly destroyed the tissues as far as the infiltration extended with the thermocautery.

This procedure was carried out, in the full knowledge of the patient without producing a single spasm. A lukewarm packing was then applied which brought on a profuse perspiration.

The patient remained quiet till about 12 oclock when spasm came on again, and this time the opisthotonos was so severe. that he was thrust off the raised pillow. To give relief Tincture opium was again injected, it produced no effect, and the breathing which was previously moaning became gurgling. Camphor oil was injected subcutaneously to stimulate the respiration, but the patient did not respond. I then endeavoured by carefully introducing the gag between the teeth to remove the phlegm from the mouth and throat. At every effort however such severe trismus came on that the gag though a strong one, was crushed flat.

In the hope that the phlegm might be better drawn through the tracheal, at half past two when he was in extremis, I performed tracheotomy. He died however when the trachea was opened. Post-mortem the temperature rose to 102.5°F. Until a short time before death the pulse was strong and regular.

When the body was opened, small sub-endocardial hæmorrhages were found, also hæmorrhages beneath the bronchial mucus membrane; in the stomach and kidneys nothing worth mentioning was observed microscopically.

The foregoing case comes in the category of the most severe. We have seen that trismus appeared 5 days after a most trifling wound. Even before this facial paralysis had been noticed without however attracting much attention.

This combination makes the prognosis doubtful from the outset and was proof of a severe local infection. I thought therefore to follow Rose's instructions, for he lays special stress on the destruction of the primary lesion, and with every confidence excised the wounded part and the apparently sound tissue beyond, the examination of the preparations showed however that it was not sound. Nevertheless I had carefully cleaned out the wound with carbolic acid the effectiveness of which is universally acknowledged, and had swabbed it with the equally efficacious orthokresol, so that my mind was at ease.

The next day there was a rapid development and before the evening the case which had begun so mildly, assumed the distinctive characters of head tetanus with spasms of the muscles of deglutition and of the glottis.

The antitoxin which had been expected for some time then arrived, full of hope I injected the whole of it (there was only a single curative dose) intravenously. It was certainly stated in the directions which accompanied it from the Hochster chemical works that, "In tetanus in men and in horses we recommend subcutaneous in place of intravenous injections, as we have reasons to believe that the intravenous injection of large quantities of the fluid drug is not always a reliable operation." Expressed thus we did not think that the caution was intended for, or was binding upon us, it appeared to be a precautionary step on the part of the authors to avoid accidents in unskillful hands, by which the whole treatment might fall into disrepute.

With the necessary precautions an intravenous injection is an absolutely harmless operation. Besides it was the same preparation that I had used before, with the exception that the one was dissolved at the Hochst instead of our surgery, and after the three former intravenous injections I met with no unpleasant results in consequence of the mode of application.

I was also under the impression, from the literature of the subject, that the reason frequent large doses were required subcutaneously was because this method of application was employed.

I therefore as described injected the antitoxin intravenously.

The patient stood the small operation well and without any increase of the reflex spasms. The general reaction was however a severe one, after four hours the temperature rose to 103.6°F. while the pulse was 156, it fell however quickly and by the morning was again normal.

* By Von. Dr. A. Heddaeus Heidelberg. Translated from Munchener Medicinische Wochenschrift.

Whether the severe reaction [illegible] was not very strong, was the probable cause of the weakness that prevailed the next day, cannot be satisfactorily settled. In the previous cases an almost similar reaction resulted, yet was not followed by any unpleasant after consequences, in these cases however the patients were strong men. A certain amount of caution is clearly indicated.

Since in our case the antitoxin was applied very late, the method of intravenous injection appeared to be the quickest and most effectual way of getting a satisfactory result, besides the method was recommended in the directions which accompanied the earlier preparations.

Let us now consider what was the actual effect of the antitoxin? As in the previous cases, a contrast between the day and evening preceding the injection and the following morning shows us that the first effect was undoubtedly upon the trismus. It is true that the mouth could only be opened to 1 c.m., still the difference was sufficient to be noticed. And when in a case of such severity, undergoing rapid development, there is a sudden change for the better in the most important symptom, we are bound to attribute it, not to chance, but to our treatment, if we have taken energetic measures; besides the spasms showed a slight improvement. I will not however advance this in evidence as the change might have occurred spontaneously.

Unfortunately the good effect did not continue. We had no antitoxin for a fresh injection and as it could not reach us, though telegraphed for, before the next morning, the only thing to be done was to support the patient's strength which was done by nutritient enemata, and to combat the complicated symptoms as was done by means of chloral, opium, and morphia, a further destruction of the local seat of lesion, and profuse perspiration induced by luke-warm packs.

There measures were however insufficient and death resulted as a consequence of an infection and intoxication of extraordinary severity.

The animals that were inoculated with the excised portion of skin all got tetanus, first, after 2 days the guinea-pig, then the mouse then the larger and finally the smaller rabbit. Tetanus bacilli were not isolated from the wound although cultivations were made according to BUCHNER's method (an agar agar plate culture heated for an hour in a water bath at a temperature of 176°F. to destroy other micro-organisms, and then a stab culture made in grape sugar and agar agar).

This case cannot effect our judgement regarding the effects of the antitoxin treatment, because the way in which it was applied was too faulty to allow it to have any weight. For it was first applied when the disease was at its height and then the dose was too small to produce a satisfactory result, and finally a second injection which was necessary to judge of its effects was impossible owing to the antitoxin not being at hand. There was only an incomplete application of the treatment and only a limited value can be attached to it. It will therfore have no affect upon our general conclusions regarding the antitoxin treatment. The question must now be put, what results can we actually expect from the antitoxin treatment?

What opinion do we hold as to its effects? Has its [illegible] been reached in the [illegible] have been already observed? or has it the power of [illegible] cut short the disease?

To answer these questions we must briefly consider the nature and manner of development of the tetanus intoxication. We know that between the infection and the first appearance of the symptoms there is a definite incubation stage, at the same time definite changes take place in the organism, which, as soon as they have reached the necessary degree of intensity in the organs affected appear as tetanus.

The changes are first the production of toxin at the primary lesion, then the absorption of the toxin by the blood and its dissemination through the body, and finally its effects upon the central organs, the medulla and the spinal cord. According to BRIEGER and BAER these toxins, like the toxin of diphtheria have been isolated in the form of an amorphous body easily soluble in salt solution, they do not belong to the albuminoids proper.

These toxins now cause changes in the ganglionic cells of the spinal cord which lead to modifications of their excitability.

When these changes have advanced to a certain stage they become permanent and persist independently of the presence of the poison. (SAHLI). Even when the primary lesion is destroyed the characteristic features of tetanus may persist unchanged. The length of time will depend upon the length of time that the poison has acted and upon its concentration.

GOLDESCHIEDER and FLAIAN have in the last year demonstrated the anatomical appearances of these changes, by researches on tetanus poison in rabbits. They found characteristic nutritive changes in the motor cells of the anterior horns. These consist in enlargement and degeneration of the nuclei, enlargement and breaking up of NISSEL's granules, a sandy disintegration of NISSEL's cells corpuscles and a general enlargement of the nerve cells.

These morphological changes in the nerve cells are characteristic of tetanus poisoning, because they were constant, and were found invariably, and because they bear no resemblence to the changes brought about by other agencies, and further they have never been found by other observers.

The development of these changes was found by these observers to be very much influenced by the quantity and by the strength of the poison. The more concentrated the posion the more quickly the changes were induced, and the quicker they were induced the more quickly did the cells react and recover themselves

The more gradually the posion was introduced, the more slowly the changes appeard, but they were also more permanent.

It is now clear that the antitoxin is able to neutralise and render innocuous to the body the toxine which is in the circulation, and which is continually being augmented by absorption from the injected lesion; but even as tuberculine has no power to remove in a moment the changes that have taken place in a tuberculous lung, the curative tetanus serum has no power to eradicate at once the alterations that have taken place in the ganglionic cells of the central nervous system.

And of this we have a proof in the experiments on animals. The authors referred to found that the teta-

not antitoxin when injected into a vein had a decided effect upon the changes in the nerve cells; and especially that their progress and development was retarded. And that when the injection was given early and in large doses, the cells more quickly removed themselves. This effect of the antitoxin was equally manifest when it was injected before or at the same time as the toxin, and even when it was injected a considerable time afterwards.

The ganglionic cells require some time to recover from the above mentioned changes in the same way as every other organ in the body that is diseased. We cannot therefore expect that immediately, or even a very short time, after the injection, that the tetanus spasms especially if severe will disappear and that there will be no further recurrence, merely because with the disappearance of the toxin there is no further extension of the poisoning to other nerve cells.

Should however the production of antitoxin continue, the effect of the serum will be overcome.

If the production of poison ceases, cure will result in a short time, the least affected cells will quickly recover while those that are more effected will take longer.

This process of cure is a normal one and therefore there can be no question of cutting tetanus short.

Our clinical experiences are in harmony with the foregoing. In the first case the injection had no immediate effect, and it was only after several hours that a decided improvement declared itself gradually, however the toxin reasserted itself and it was only when a second injection was given that a permanent good effect was obtained. There is no absolute proof that fresh toxin was formed and absorbed into the system after the first injection, but we are justified in concluding that the first dose injected was not sufficient to completely neutralise the poison.

Still it is open to conjecture that the infective lesion was in the first instance destroyed by the incision that was made after the second injection, and that this second injection had the effect of immunising the system against the production of fresh toxin that was going on.

In the second case, we noticed that there was first of all a check in the progress of the disease, then a slight improvement followed by a sudden aggravation. Here the complicated condition of the wound renders it very probable that there was an overwhelming supply of fresh toxin. Between the first and second injections the wound was thoroughly cleaned and disinfected for the second time. Perhaps this accounts for the great and permanent effect of the second injection, if we may presume that no fresh supply of toxin took place to the central nervous system.

In the third case we observed only a slight check, then an aggravation which continued to a fatal termination.

From these considerations can we be thoroughly contended with the results of our serum treatment of tetanus?

We do not deny that it is possible in many cases, specially of the milder type, to obtain a similar effect for the time being, by means of the symptomatic narcotic treatment, such indeed we have observed in our own cases.

But we must distinguish between obtaining the result by a drug which acts directly upon the symptoms and by one which affects them indirectly by destroying their exciting cause. Even when the [illegible] narcotic drugs are still of value for they act upon the spasms which are due to central changes, which the serum is powerless to influence directly.

Opium and calomel act in a similar way in infectious catarrh of the intestines.

Our results from the serum treatment of tetanus are particularly striking when we compare them with those obtained previously. Besides the first quoted case which was treated with opium, there were altogether 12 cases seen in the clinic since 1876 and all were fatal.

When finally we turn our attention to preventive treatment there is not much to be said. According to TIZZONI there is already a considerable series of observations on man, but in these cases the presence of tetanic infection could only be suspected from the nature of the wound.

It is difficult to draw conclusions as to the practical value of the results, because we are not in the position from clinical observation to foretell the advent of tetanus, there is no aura tetanica. Neither is it clear that it would be possible to persuade people suffering from a wound that was likely to produce tetanus to submit to serum injections on account of the general dislike to all surgical operations, even supposing that the price of the drug was much lowered. Yet *a priori* there is no reason why they should refuse the preventive inoculation which previous observations have shown to be harmless, any more than in the case of diphtheria, if it is shown to be practicable.

According to VAILLARD, experiments prove that protective inoculation is permanent if the succeeding injections are given subcutaneously, temporary, if deep in the muscular tissue.

He has given the following indications for preventive inoculations. (1). In all injuries where infection appears probable. (2). In veterinary operations when tetanus is frequent (castration. Injuries to the hoofs).

BEHRING also insists upon the necessity for preventive inoculations, and the HOECHSTER chemical works provides the following preparation for prophylactic injections.

A small flask for immunisation containing 2 cc.m. 10 fold=20 Tet.—I,—E. 1 ccm. is sufficient for an injection and will give protection for four weeks when the presumed infection has only just taken place.

The same dose of 1 ccm. is sufficient as a prophylactic injection in the case of operations which are occassionally followed by tetanus. Should however the infection have taken place some time before, not less than 4 ccm. must be injected.

I will bring to an end my observations on the Therapie of Traumatic Tetanus and the position it occupies at the present day with the following conclusions.

1. Behring's antitoxic serum, according to the foregoing experiences, is undoubtedly an effective drug of a specific character in the treatment of traumatic tetanus, and should be administered in all cases of tetanus. It is best to give it at the earliest possible time.

2. The local treatment which consists in as complete destruction as possible of the primary lesion must not be omitted, for its neglect leads to a constant supply of toxine which is prejudical to the effect of the antitoxin.

3. The symptomatic treatment with sedative drugs, narcotics etc., must go hand in hand with serum therapie, as it will be effective even when the latter fails.

4. The older methods for the elimination of the tetanus poison from the body must also not be neglected.

5. The preventive treatment deserves to be further investigated.

CURRENTS AND NEWS.

STATE DOCTORS AND PRIVATE PRACTICE.

The Bengal Times, the leading English newspaper of Eastern Bengal has the following cogent and well timed remarks on the above subject :—

"In a recent issue we published some remarks regarding State-paid doctors, and their immense advantage over non-official medical practitioners, who strive for a livelihood, without State aid as a fall-back. Our remarks seem to have been approved in quarters where it is felt that, open competition, however healthful, becomes a matter of serious concern, when it lies between two classes of medical rivals, unfairly handicapped To enable him to enter upon competition, with a fair hope of success, a man must be unimpeded by obstructions, which are not easy to remove, nay, which, in many cases, are insuperable. Dr. A, who starts in private practice, feels that, with fair play allowed him, there is a career of usefulness and personal gain he may follow with credit, and in which, in a reasonable lapse of time, he may make an independence to solace his declining years. Setting to work with manly resolution and a hopeful heart, he finds, after a while that, he is supplanted everywhere, by men absolutely independent of casual fees, and with a sufficient monthly salary from Government to keep them comfortably, without an outside honorarium—or other independent help They are well housed, well fed, well served, their equipages are smart, their dwellings well appointed, their salaries punctually paid They can afford to dress suitably with their position, and to keep up a show that attracts a constituency, which is gradually nursed up at dinner parties and social functions, from which, most doctors in private practice find themselves excluded, because of their straitened circumstances, and their possible lack of introductions They may be men of exceptional attainments, *au fait* with achievements in surgery and medicine, so brilliantly successful as to be almost incredible They may be personally gifted with unusual, even enviable talents, but their life is a protracted struggle with poverty, a continuous make-shift, a perpetual racking of brain to make one rupee suffice for five, because they have been so unfairly handicapped at their start And when, in this cruel conflict, they fail, how many are eager to assign a cause, manufactured out of fertile brains, why Dr So-and-So has gone under water. "Poor fellow He was his own enemy. He was above counsel and fretted under friendly advice. And he was besides this, a spendthrift, a man with limited means and unlimited notions," &c, &c. Or it may be, his friends (!) are both more frank and more graphic in their assignment of cause and effect One shakes his head, another lifts his thumb to his lips, another coughs significantly, and *veuls tout*—Dr. A and his misfortunes are summed up without a word of mouth explanation—summed up by fictionists who know nothing of his affairs, and whose most authentic information amounts to "they say." One of our ablest Indian contemporaries—Dr. WALLACE—through an admirable institution—Indian Medical Association—with which he has long been connected, has toiled zealously for years to enlist Government sympathy, or even to shame our rulers into modifying this state of affairs, but our somnolent rulers, whose purses are untouched, smile complacently and exclaim "Bless my soul we can't interfere with fair competition." Quite true; but nobody wishes for that, so long as competition *is fair*. Is it so, in this case? We say emphatically—No. This is a question that must be referred to first principles, and they imperatively require that a State servant—as an indispensable and inviolable condition of his appointment—shall devote *all* his energies to State service He cannot have any divided interests. *All* his time, *all* his ability, *all* his energy are for his 'substantive his *salaried* appointment, and this is a 'principle' that permeates all branches of our public service whether covenanted or uncovenanted. In no arm is it permitted an officer drawing a regular salary—whether upon a gradation list or otherwise—to add to that salary one stiver by remunerative labour of any class or kind, in which he is personally engaged. Why should a doctor be exempted from this stringent rule? Why should an inflexible principle be invaded for his special behoof; why should Government stultify itself to put fees into his pocket? A Government engineer is not permitted to accept work from outside employers; a soldier, a priest, are all subject to this order, and to such an extent, that they may not even contribute to a journal as "own correspondent" without permission, under penalty of dismissal. Here, then, we find, when Government declares its inability to interfere, its excuse is baseless. Fair play, good conscience, nay, common decency, all demand a principle of consistency in Government which we regret is sadly wanting in some instances, and this is one. If for no other reason it should be just to all its subjects, because of its profession that it is a *Christian* administration.

SEROPATHIE OF DIPHTHERIA.

RECENTLY at a meeting of the Imperio-Royal Society of Physicians of Vienna, M KASSOWITZ has announced the results of his researches upon the value of Seropathie in diphtheria.

In the first place he says, that in order to form an opinion upon the efficaciousness of this method of treatment, it is not sufficient to consider the statistics of different authors, what is necessary is to be assured that there has been a decrease in the *total mortality* from diphtheria.

If it turns out to be true that the mortality has decreased since the introduction of the serum treatment, it has still to be borne in mind that a notable decrease had already been observed before this treatment came into vogue.

On the other hand there are towns as St. Petersburg, Trieste etc, where the mortality from diphtheria has increased since serum was used Another factor which has to be borne in mind is that the number of cases of diphtheria has very largely increased, for now, all affections of the throat benignant or not, are returned as diphtheria, provided LOEFFLER'S bacillus is found. As a natural consequence the mortality *rate* has decreased to a considerable extent.

Finally the sick being more readily admitted to hospital, it is easy to understand that the recoveries are more numerous

All these considerations show that we cannot compare present statistics with those of pre-seropathic days.

These statistics are still further discounted by the fact that most of them take no account of toxic diphtheria, or of complications In fine they only afford information concerning the relative mortality from diphtheria, and not concerning the absolute mortality which is the only question of importance.

It is stated that the value of the serum has been demonstrated clinically, yet it must be remarked that two of the most serious complications, which are universally admitted to be caused by the diphtheria toxine, namely paralysis and aerial troubles, are altogether unaffected by the action of the serum.

The number of cases of paralysis and of diphtheritic nephritis has, instead of diminishing, increased, since the introduction of Aeroaphila, all authors are agreed on this point.

This fact proves that the serum does not possess any antitoxic action; paralysis of the heart has also been observed in infants treated with serum.

Further it must be remarked that the action of the serum on the fever is disputed. While Kossel considers it antipyretic, other authors deny that it has this action. It is the same concerning the favourable effect of the serum upon the general condition; it is affirmed by some denied by others. Neither is their any settled opinion regarding the effect of the serum upon the local lesion, according to some it hinders the development of the false membrane and according to others it is powerless to prevent the invasion of the nasal fossæ, larynx etc.,

Certain however it is that majority of fatal results are due to the spreading of the membrane to the lower respiratory passages

On the other hand, from the point of view of the number and of the gravity of the tracheotomies for diphtheria, the situation has not been appreciably modified since the treatment by serum was adopted

Finally, what goes a long way to detract from the confidence inspired in the value of the anti-diphtheritic serum, is the fact that the specific nature of Loeffler's bacillus grows every day more problematical, it is in fact found in sore throat of the most varying character and even in many other non-diphtheritic affections

SOME MEDICO-LEGAL ASPECTS OF THE CASE OF REGINA versus COLLINS.

This case in which Dr Collins was found guilty of manslaughter, by causing the death of Mrs Uzielli through lacerating the uterus in the illegal effort to produce abortion, is of interest from many points of view, but particularly so as throwing light upon the unsatisfactory manner in which medical and other expert testimony is treated in the English law courts

The fact that expert testimony has fallen into such general disrepute is entirely due to the system adopted in England

The following questions and answers will serve to illustrate our meaning The witness under examination was Sir John Williams, the questions were put by Mr Gill We quote from the *British Medical Journal*, July 9th, 1898.

"Witness continuing said he had examined Douglas' pouch especially with regard to the adhesions Douglas' pouch was practically obliterated in consequence of the sides being stuck together There was some thickening

Mr Gill "would you describe it as a deposit in the pouch? Answer It is a deposit, but thickening is the proper term for it

Mr. Gill Was there a quantity of matted adhesions? Answer: No, there was no matting There were three or four adhesions, the result of exudation of lymph.

Mr. Gill At present it is I who am cross examining you. Were those old adhesions indicative of old peritonitis? Answer:—Yes and no

From this we see that the examining barrister or counsel is able to put any question he pleases and in any manner he pleases, no matter how senseless or misleading it may be.

To the expert is allowed no latitude. No chance of explaining the misleading nature of the question, whatever the question put, he must answer it.

It is upon the issue of this interesting duel of wits that the Judge and Jury form their opinions, a judge and jury who have presumably never heard of the existence of Douglas' pouch, and [illegible] "adhesions" and "exudations of lymph" etc., [illegible]

In this case, as was inevitable, almost, the whole of the evidence was of the most intensely technical description, and the expert whose testimony was called for, to throw the utmost light upon the difficulties, and to clear up the case in the interests of justice, were never for a moment allowed a free hand; they were hampered by all sorts of questions, many of these having for their object the confusion of the issue and the misleading of the minds of the jury.

Nothing is more remarkable in these cases than the ability with which the counsel for the defence makes up the most intricate technicalities and the way in which he turns every little point to the advantage of his client. To read M Gill's cross-examinations one would imagine that he had been practising obstetrics for his entire career, yet most probably the whole of his information had been merely crammed up a few days previously. He had been no doubt carefully coached by some expert.

Had Sir John Williams been allowed to ask him a few questions the extent of his knowledge would soon have been made clear.

This system opens out the widest possible door for the miscarriage of justice, and this has been made clear in more than one case, some of them historical.

They manage these things better in France, there, the whole of the medical evidence would have been submitted to a commission of medical experts. They would have sifted it to the bottom, and their conclusions would have been accepted without question or cross-examination in court. Who can doubt which is the better system?

THE EFFECT OF THE ANNOUNCEMENT OF PLAGUE ON CALCUTTA BUSINESS.

The following remarks of Mr. David Yule, Chairman of the Bank of Calcutta, Limited, made at the Bank's general meeting on the 30th July, deserve to be recorded in the History of the Calcutta Plague. They shew in strong relief the state of confusion into which the city was thrown by the sudden declaration of plague, without any previous warning, and bear out much that has already appeared in these columns.

"Although the Bank has made fair progress during the half-year I regret the general state of business in Calcutta has not been satisfactory and the depression caused by the severe stringency of the money market, was much aggravated by the unexpected announcement by the Government of Bengal that true cases of plague have been discovered in the town, and that certain measures would be enforced to prevent the spread of the disease. The loss which has accrued to the commercial community is enormous and incalculable, for in addition to the stoppage of the trade of the port for several days, the peace of the whole labouring population has been disturbed, and the good feeling between workmen and their European employers and overseers sorely tried. It is unfortunate that so important an announcement was made with apparently so little consideration of its possible effect on the trade of the province and on the minds and feelings of the people. The flight of nearly one-fourth of the inhabitants of the town and suburbs, during the panic which ensued, gave an opportunity to the ringleaders of disorder to shew, how, by combination, the entire industry of Calcutta, including work at the Railway yards, the jetties and docks could be brought to a standstill. Workmen have been paid as much as four times their ordinary pay, in cases, where delay meant greater loss to the employer than this advance. The effect of this on others who have not received increased wages is clearly visible,

they are [illegible] and [illegible] in their [illegible] and for the [illegible] thing, it is dangerous to [illegible] that [illegible] and [illegible] over [illegible], which is so [illegible] to good and [illegible] work. I do not speak from theory. I come into contact daily with several hundreds of Indian operatives, and have, therefore, the opportunity of seeing the unruly spirit and the lack of interest in their work, which the majority of them now display. The panic itself has happily subsided, and the people are now no longer afraid of the disease, which many of them believe to be a kind of fever attended by swellings, arising from weakness, which is not uncommon in Bengal during the monsoon months. In any case, plague is not the term to apply to an ailment which has not, except in less than a dozen cases, attacked two people in the same house; or confined itself to any particular part of the town. The word more fittingly describes the state of misery into which many thousands of our poorer citizens were thrown, by their eagerness to escape from the dreaded inoculator and the Municipal plague hospital. The mischief has been done and it is impossible to recall the past, but this black page in Calcutta's history teaches us that the Government cannot too fully take the people into their confidence before adopting any measure which interferes with caste regulations and the happiness and liberty of the subject."

PLAGUE IN CALCUTTA DISPUTED.

AT a recent meeting of the Municipal Commissioners of Calcutta, Dr. RAMMOY ROY, a most talented and experienced physician, a graduate of the Calcutta University, in supporting a resolution for a searching enquiry into the real nature of the disease prevalent in Calcutta and reported to be *plague*, "observed that there was a very general belief that the cases reported as plague cases, were not true cases of plague, and the Commissioners should try their utmost to remove the erroneous impression that they were true cases of plague from the minds of the people The diagnosis of plague cases was a matter of great difficulty. The so called plague had been recognised as being in Calcutta and in Bengal ever since he commenced to practise as a medical man, that was to say, from the year 1871. He saw these cases when he was Resident Surgeon in the Mayo Hospital, House Physician in the Medical College Hospital, also when in officiating charge of the SUMBHOO NATH PAUNDIT Dispensary and in charge of the North Suburban Hospital in Cossipur, and also in some of the towns in Bengal when he was medical officer to Sir ASHLEY EDEN and Sir RIVERS THOMPSON'S Government, and some cases in Dacca, Mymensingh and Pubna when on a river tour Since May 1882 he had seen these cases year after year there was not a single year in which he did not treat at least 200 or 300 cases From the day on which plague was declared in Bombay he kept a record of the cases which he had treated, and he found the number to be 362 in Bhowanipur and Calcutta and all of them had recovered, and he could even now give a reference to cases There was a *pucca* case in the house of Prince MAHOMED BAKHTYAR SHAH, and 2 cases in the house of Babu MOHINEY MOHUN ROY about a year ago, and he could also give other cases regarding which the Commissioners could satisfy themselves. They had bubonic or glandular swellings in the groin accompanied with high fever rising up to 105 8 with delirium and unconsciousness. But not one of those cases proved fatal. It required an experienced medical man to recognise and diagnose such cases. Those who had not much experience of diseases in Calcutta and Bengal, generally, were not able to recognise this form of disease Medical men from Bombay, who had seen plague cases only, and nothing but plague, would at once pronounce [illegible] plague cases, because they did not know the [illegible] case prevalent here. He doubted if even Dr. Cook, whose reputation in the profession was very high, had sufficient experience to differentiate between the disease which prevailed in Bengal and the true bubonic plague. Great experience was necessary to differentiate between the two forms of disease, and he could not too strongly impress upon the Commissioners the great necessity of having these cases correctly diagnosed and reported upon."

MEDICO-LEGAL ASPECTS OF THE BARRACKPORE MURDER CASE.

IN this case three soldiers of the Royal Artillery stationed at Barrackpore were charged with the murder of Dr. SIRCAR, a native doctor who practised in Barrackpore.

The medico-legal aspects of this case are of the greatest interest, and it was only when the medical evidence was called that the court began to show any sign of life.

It was shown that the cause of death was a severe fracture of the skull, which might have been caused by a kick with a heavy boot, or by a fall upon a sharp stone.

The case for the prosecution was that the fracture was caused by a kick given by one of those accused, and it was proved that there were no stones, such as could have caused it on the spot where the injury was received, the evidence as to the identification of the man who had given the kick was not sufficiently convincing and on this point the prosecution broke down.

This breakdown might not have occurred had the police done their work efficiently, and their negligence fully deserved the severe censure passed upon it by the Chief Justice

It is a most remarkable thing that the boots, the very things which were alleged to have caused the fatal injury were almost overlooked there was a sensation as of an electric shock throughout the court when a juror asked the telling question, if the injury was caused by a boot would not it bear traces of blood this question was answered in a decided affirmative by Surgeon-Major KEOGH, A.M S.

With respect to the boots there had been the most culpable oversight, the police had overlooked the probable importance of their dumb testimony they had been subjected to no scrutiny and in fact were only asked for and taken possession of some three or four days after the event That they had been cleaned in the meantime, and all traces of the crime removed, if there had been any goes without saying.

Had these boots been taken at once and submitted to expert examination it is quite possible that the graver charge of culpable homicide would have been brought home to one of the accused

In a case of this importance such neglect is most regrettable

When Surgeon-Major KEOGH first saw the deceased he was unconscious, but seeing that perchloride of iron had been applied to the wound on the head, he inquired, and was informed that the deceased had himself given instruction for its application, from this it appears that unconsciousness was not instantaneous, yet no advantage was taken of this important interval to obtain any statement from Dr SIRCAR, nor does he appear to have volunteered one.

This unfortunate as it is, is of less importance as it is not probable that anything he could have said would have helped towards identifying his assistant.

The failure to obtain a verdict of culpable homicide must be largely attributed to the faulty way in which the police work was carried out.

[illegible]

A meeting of the above society took place we are told by *The Englishman*, on Tuesday evening, the 9th August 1898, at Pattie's Refreshment Rooms in Calcutta. The meeting was not a public one, newspaper reporters, the other local dailies (all in, were excluded, but the representative of the *Englishman* was all there. Among those present were, the Inspector-General of Civil Hospitals, Bengal, the Principal of the Calcutta Medical College Hospital, the Superintendent of the Seealdah Medical School Hospital, the Superintendent of the Presidency General Hospital, all the Bombay Plague Doctors, the Health Officer, the Assistant Health Officer, the Chief Plague Officer, the Sanitary Commissioner of Bengal, the Protector of Emigrants, the Proprietor of the *Englishman* and the Surgeon-General's Head Clerk. No gathering could have been more representative of Calcutta *official* plague opinion, for besides the head, body and tail of the whole show, the official *organ* of the society was there.

There was a dinner and the usual flow of liquids, and after that the talking. They praised the Queen, the Royal Family and the Viceroy, and then they praised each other, and the buttering was very thick. One would have thought the "Blarney stone" was there in great proportions They were all *great* men there. Not a single mediocre found a place in that exclusive assembly of seventeen barring the Head Clerk of course. One of the members presided and as a working member he spoke first. Then our worthy Health Officer—more power to his elbow—gave a neat little speech, and took the trouble to state that he had never kissed the "blarney stone." JUSTICE upheld the Standard Bearer of Madras, and how he stood such a brisk fire of compliments, it is hard to say. Judging by the neatly turned speeches specially reported in the *Englishman*, and in the *Englishman* alone, both JUSTICE and BANNERMAN scratched each others backs in right earnest. But for loud-mouthed flattery commend us to CLEMOW. He charmed the tongue of HENDLEY into motion and it spoke as few tongues speak, except the *Englishman*. The head of the official plague show was a veritable phalanx in himself in support of the State diagnosis of Calcutta plague. Who will now dare to disbelieve? This conclave of the Self-adulation Society have patented an un-patent truth, stamped in all credibility by the overpowering conviviality of evening pleasures.

A discourse on plague and the gruesome details of necropsies did not seem to disturb the gustatory and digestive powers of the society, for all the horrors of plague dangers were strangely and charmingly obliviated by music and hilarious conversation. Altogether we do not find the smallest reason to congratulate the Plague Diagnosis Society on its nocturnal performances. The ostensible object of the meeting was to do honor to Dr. COOK, our robust Health Officer, who rightly deserves much credit for his indefatigable labours and his untiring zeal. But there can be no doubt that the evening was devoted to publicly ventilating and supporting the questionable diagnosis of the Risley Plague Commission, of the endemic glandular fever now prevalent in Calcutta, and styled by that commission, The Plague. What was more fitting than that a band of officials should stand by their masters. "The man who pays the piper has the right to call the tune," and in this particular instance, the gamut rang from top to bottom with plague—plague—plague. Still the tune falls flat, for THERE IS NO PLAGUE in Calcutta. *Official* opinion and official edicts may keep on declaring this bubonic fever, plague, but *non-official* opinion is dead against this verdict.

[illegible]

The Health Officer, Calcutta, Dr. W. COOK, D.P.H. in his Note on the "Health Department, Budget Estimates" makes the following suggestion:—"I would suggest for the consideration of the Commissioners that instead of appointing one of our present unqualified Sanitary Inspectors, they should make it an acting appointment only, and advertise in the English papers for a Certificated Sanitary Inspector who has been through the course at the Sanitary Institute, and passed his examination, besides having practical experience in the work of a large town. I believe the services of such a man could be obtained for about Rs. 400 a month and horse-allowance, and that he would prove more valuable for the class of work that has to be done than those of the R. E. Officers, and other gentlemen of high social and professional attainments. I do not consider that any one of the present staff of Sanitary Inspectors is properly qualified for the post in sanitary knowledge, or has the personal qualifications which are necessary for the efficient control of a large establishment."

From this it would appear that there is no place in India where men are trained in sanitary work. This is not to be wondered at considering how much our whole educational system has fallen behind the times, and the snail's pace at which things move in India.

We present the fact to the authorities as another direction in which Reform is urgently needed. Will Surgeon-Major General HARVEY, C.B., kindly make a note of this.

We show in our Editorial columns how the government in its own admission has grievously failed in its efforts to educate medical men and nurses, but surely it should not be beyond its power to turn out capable sanitary inspectors. There is plenty of material, and examples of how things *should not be done*, to provide valuable instruction for the responsible authorities.

THE ROYAL ARMY MEDICAL CORPS.

THE following is the text of the Royal Warrant authorising the formation of a Royal Army Medical Corps :—

ROYAL WARRANT.

Formation of the Royal Army Medical Corps.

Victoria R.I. Whereas We have deemed it expedient to alter in certain respects the conditions under which officers employed upon the medical duties of Our Army are at present serving;

Our Will and Pleasure is that the officers below the rank of surgeon-major-general serving in our Army Medical Staff shall be formed into a corps together with the warrant officers, non-commissioned officers, and men of Our Medical Staff Corps;

It is Our further Will and Pleasure that the designation "Medical Staff Corps" shall be abolished and that the Corps formed as above mentioned shall be styled the "Royal Army Medical Corps."

The following alterations will consequently be made in the ranks of the medical officers of Our Army :—

Present Ranks.	New Ranks.
Surgeon-Colonel ...	... Colonel.
Brigade-Surgeon-Lieutenant-Colonel ... / Surgeon-Lieutenant-Colonel	... Lieutenant-Colonel.
Surgeon-Major ...	... Major.
Surgeon-Captain ...	... Captain.
Surgeon-Lieutenant ...	... Lieutenant.

The medical staff of Our Army shall in future consist of Surgeon-General (ranking as Major-Generals) and the title of Surgeon-Major-Generals now serving shall be altered accordingly.

Officers of Our Royal Army Medical Corps holding appointments in Our Household Troops shall be borne as second

officers in the establishment of Our Royal Army Medical Corps and shall be dealt with as regards pay and promotion in accordance with the rules laid down in Articles 554, 555, and 557 of Our Warrant for the pay, appointment, promotion, and non-effective pay of Our Army, dated 26th April, 1897.

Given at Our Court at Windsor this 23rd day of June, 1898, in the 62nd year of our Reign.

By Her Majesty's command, LANSDOWNE.
Army Order 93 of 1898.

MR. BALFOUR ON MEDICAL RESEARCH.

On July 19th the First Lord of the Treasury distributed the prizes to the successful students at Guy's Hospital. After the prize-giving he addressed his audience in a telling speech. Commencing by paying a warm tribute of esteem to the nobility of the medical profession, and having referred to his recent election as a governor of the hospital, Mr. BALFOUR proceeded to point out how science was necessarily getting more and more specialised and that therefore medical men and those whom they would have to treat were being gradually compelled more and more to rely upon those whose work was mainly research. He continued :—

"The man who would succeed in research, the man who, at all events, desires to devote himself to research, must not be asked to burden himself with other labours. He has upon his shoulders not merely what I may call the specialised work of his profession, but he must have a sympathetic and appreciative eye to everything which is going on in other departments of science, so that even where he cannot follow those other departments minutely he knows by the instinct of genius where to pick up those new discoveries which may help his own special branch of research. For men of that kind I think we require further endowment. I have all my life been an ardent believer in the cause which is often laughed at—the cause of the endowment of research In that cause I most firmly believe, and I think there is no branch of knowledge in which it may find a more useful field of application than in that of advancing medical knowledge."

We are glad to find such opinions held by a man of Mr. BALFOUR'S position and attainments, but in the British Empire it would appear that the Scoffers to whom he alludes are in the majority.

His remarks furnish a clue to the absence of research in India, the Government is too intent upon getting its pound of flesh out of every medical man it employs to have time or money to throw away in this direction.

PROFESSOR KOCH ON PLAGUE.

In honour of Professor ROBERT KOCH, the German Society for Public Hygiene held a special meeting on 7th July, in the hall of the Zoological Gardens, on which occasion KOCH delivered an interesting address on bubonic plague and its dissemination. KOCH calls the plague primarily and essentially a rat's disease ; from rats the infection is carried to man. As the chief foci of the disease—places where it never entirely dies out, and whence it spreads at intervals—he named Mesopotamia, to which country all the epidemics that in olden times were the scourge of Europe can be traced ; Thibet, whence the infection is carried to China and India ; Western Arabia, South of Mecca, where a residuum has been left; and British Uganda in Central Africa, a hitherto unknown focus, from which, however, epidemics have sprung, and can be traced as far as the North Coast of Africa and the Nile Lowlands. At Kisibi, a German settlement on the West Coast of the Victoria Nyanza, Professor KOCH and Dr. ZUPITZA, had occasion to observe cases of a disease with exactly the same symptoms as Chinese and Indian Plague. This disease the natives call "lawunga ;" it has an enormous mortality (about 90 per cent.), and is extremely infectious. Clinical observations were, of course, registered, the blood and the glands bacteriologically examined, and five necropsies made. Spontaneous cases of rat disease were likewise observed, and experiments on animals by feeding and inoculation carried on successfully. KOCH found that here, too, the human epidemic is preceded by a rat epidemic. Natives, as soon as they see rats lying dead, fly from their huts. The Kisiba banana plantations abound in rats, thus forming a most favourable locality for the development of plague. Still, the Kisiba plague is only an offshoot from Uganda, brought there eight years ago by a single case. In Uganda itself—so the missionaries declare—plague has been endemic from time immemorial. KOCH thinks it very possible that the projected railway from Uganda to Mombassa may bring the plague to the coast, and cause an epidemic there, but he hopes that modern science—in conjunction with the cleanliness of advancing civilisation—will before long be successful in stamping out the disease.

THE ANGLO-INDIAN CAUSE. UNION AND DEFENCE.

We are so deeply and fervently interested in the Cause of the Domiciled British Community of India, a CAUSE that most intimately concerns not only the well-being of every European and his descendants who have made this country their home, but the well-being of the country itself and all sections of its indigenous population. The grievance of the Domiciled Britisher is that he does not get FAIR PLAY in the game of life in India. The Indian Government knows this grievance only too well, but neither the interested gang of free-booters at Simla nor their co-conspirators at the India Office in London, will disgorge one penny's worth of their ill-gotten booty till they are compelled to do so UNION AND DEFENCE are words that are synonymous with VICTORY and they are the two words which form the key-note to constitutional agitation against the Indian Government. We suffer from serious wrongs in India. There is only one way to get these wrongs righted. Let England and England's people know our wrongs, let them thoroughly understand them, and the citadel of prejudice and iniquity at Simla and Westminster will fall into instant decay. A combined and determined union of the Anglo-Indian race would quickly bring the effeminate officials of Simla to their right senses. Let no Anglo-Indian cease to agitate for the cause of FAIR PLAY, till all the shackles of Indian serfdom have been broken, and a FAIR FIELD opened to the competition of the imported Britisher, the domiciled Britisher and the Indian alike. We invite special attention to the papers on the Anglo-Indian Cause to be found in this number and we entreat every Anglo-Indian who reads them to act upon the advice therein given. Let every British reader join the IMPERIAL ANGLO-INDIAN ASSOCIATION AT ONCE.

STANDARD OF MORALITY ACCORDING TO THE "MEDICAL BRIEF."

No individual or nation has the right to set up a standard of morality for another, farther than to "Do unto others as they would have others do unto them." We are too apt to mistake a desire to impose our own wishes and views upon others for the self-sacrificial zeal of the true reformer. Morality is too often mere narrow-mindedness, bigotry, intolerance, which easily degenerate into persecution. Love of dominion and lust of power, conjoined with the better than thou sentiment, actuate the moralist far oftener than he suspects.

For instance, men of delicate appetites look with scorn upon the grossness of other men whose vigorous and healthy

cannot claim the indulgence. Before the ascetic condemns the sybarite, he should reflect upon his own poverty of body and ask himself if he would feel the same intolerance had he the other man's superior physical endowment. The man who sickens when he smokes a cigar is apt to think that smoking is wrong, but he has no right to prohibit others from the exercise of a free will choice. If a man finds that certain articles of food disagree with him, he must not try to prevent others from eating them.

We learn by our mistakes. The fullest of liberty choice is essential to progress. No man, or nation of men, is perfect, and to generalize for the race from a narrow experience is hurtful. To lay down arbitrary standards is not only injudicious, but it does no good. It has no permanent effect and is demoralizing. People will always find a way to evade the spirit of laws which hamper Nature When an individual, or a nation, reaches the moral state through evolution, they will keep the moral law, not from fear, but from love. Compulsion, therefore, is not the weapon of the true reformer. He instructs, advises, suggests, exemplifies in his own person the great truths which he believes. Those who really desire the welfare of men are satisfied to *teach and not to coerce*.

THE ACCIDENT TO THE PRINCE OF WALES.

We are sure that the members of the Medical profession share in the universal expression of sympathy with the Prince of Wales on the accident which has befallen him.

The Prince was seen immediately after the accident by Sir Francis Laking who summoned Sir William MacCormac and subsequent consultations were held with Sir Thomas Smith and Lord Lister.—The following statement has been sanctioned for the benefit of those who desire authentic information :—

" On Monday morning 18th July, while coming down the spiral staircase at Waddesdon Manor, he missed his footing, and in the sudden severe effort made to save himself from falling, sustained a fracture of the left patella.

On examination it was found that the line of fracture was nearly transverse and close to the upper margin of the patella. About one-fifth of the bone, somewhat crescentic in shape, was torn away, along with the tendinous insertion of the quadriceps extensor, and the gap between the fragments amounted to a little more than 2 inches. The Joint was distended with blood. Means were adopted to immobilise the limb, bring down the upper fragment, and to prevent tilting. This has proved so far successful, that upon examination to-day it was found that the interval between the fragments was greatly diminished, not being now more than a quarter of an inch, and the effusion in the joint is lessened considerably. The condition of the illustrious patient is in other respects most satisfactory, and he is bearing the enforced restraint with exemplary patience and good temper."

We have since heard that the effects of the injury will be permanent, a slight shortening of the injured limb being unavoidable.

AUTO-INTOXICATION.

This is an almost unknown subject which supported by (1) analogy, and evidence drawn from (2) clinical pathology and (3) clinical therapeutics, is within limits a useful working hypothesis for explaining a great many states where pathology is obscure, but to form a hypothesis is one thing, to verify it quite another and so far beyond predisposing testimony there is next to no direct evidence of "a body whose function prevents a certain form of degeneration, which in its absence the body tends to take on." So also with the theory of health depending upon efficient assimilation and excretion while failure to eliminate and cast out waste products or errors in those processes required for conversion of binary or ternary into quaternary and higher combinations lead to diseases. Thus chemists prove (1) the poisonous character of the albumoses and peptones formed during normal digestion and (2) the presence of toxic alkaloidal bodies in living and in dead tissues, as well as (3) that certain animal extracts can coagulate the blood. Sidney Martin shews that the (4) poison of diphtheria is a product of our own body under the stimulus of a peculiar bacillus and Brown Sequard claimed (5) an *etiam pro quid* for the glandular structures of the body while Bouchard discloses, which Beck disputes (6) the toxicity of urine in the role of uræmic causation, which is attributed by scores of others to (7) defective excretion of waste products. But none of the poisons found during digestion have ever been found in the blood, and in urine the amount of such bodies is so minute as to throw doubt on their existence, while it is equally doubtful whether animal extracts play any part in morbid processes.

THE HEROISM OF A MEDICAL OFFICER.

The *British Medical Journal* says :—" Sir Walter Foster has submitted the following interesting statement for the consideration of the Secretary of State for India, in reference to the campaign on the Indian Frontier : " Lieutenant Ford, of the Malakand Field Force, was dangerously wounded in the shoulder, and was bleeding to death from the bullet having cut the main artery, when Surgeon-Lieutenant Hugo came to his aid. The fire was too hot to permit lights to be used to examine the wound, and there was no cover ; nevertheless, the surgeon struck a match, and examined the wound. The match went out amid a splutter of bullets which kicked up the dust all round, but by its uncertain light he saw the nature of the injury, and seized the bleeding artery, and as no ligature was available, he remained for three hours under fire holding the vessel between his finger and thumb. When, at length, it seemed that the enemy had broken into camp, he picked up the officer, who was unconscious from loss of blood, and bore him into a place of safety without relaxing his hold of the artery." Sir Walter Foster, has pressed on the authorities the expediency of rewarding in a suitable manner this splendid act of devotion.

THE SALE OF ABORTIFACIENTS AND CRIMINAL ABORTION.

A correspondent writes to the *British Medical Journal* as follows :—

I beg you will give me space to point to the class of advertisements which flood the columns of many weekly and some daily papers addressed to " ladies requiring assistance." No doubt the greater number of these are fraudulent and do not fulfil their promise, but they work untold mischief by offering inducements to young and thoughtless women to yield to temptation under the strongest assurance that whatever may happen all will be " put right." So audacious are these announcements, and so long have they gone on with impunity in otherwise respectable papers, that it is no wonder a certain class of persons have been educated to look upon abortion as hardly constituting an offence. Fashionable women whose maternal instincts have been blunted or lost amidst the whirl and excitement of social engagements, fly to purveyors of these nostrums to rid themselves of the irksome encumbrance of children, and, getting no relief, sometimes tempt their medical attendants to risk their reputations in acceding to their wishes, happily with very rare success. Nevertheless, it must be confessed that there are men in my profession whose morality in these matters allows them, while ostensibly employing means for the treatment of other conditions, to endeavour to bring about the results indicated. I make this grave statement with the utmost deliberation. It is a state of things which a medical journal has described as "an abominable traffic in the suppression of which all decent citizens are interested."

DEATH OF AN OLD INDIAN DOCTOR.

Surgeon-General Frederick Morrison Clifford died in London on 16th June. He entered the Indian Medical Service (Bengal) as Assistant Surgeon on 4th April 1843, and was placed in medical charge of the European Depot at Chinsurah. In the following year he was attached to the 10th Bengal Cavalry, with which regiment he remained until 1854. In 1856, on return from furlough, he was appointed to the charge of the 6th Native Infantry, and on the mutiny of that regiment was successively in medical charge during 1857-58 at Allahabad of the Depot Hospital connected with General Havelock's brigade and of the general depot hospital. In June, 1857, he was promoted Surgeon, and in the following year was attached to the Field Hospital, Fategarh. While attached to the 10th Bengal Cavalry, then known as the Cavalry Regiment of the Bundelkhand Legion, throughout the campaign against the hill tribes in Scinde under Sir Charles Napier, he also served for a short time with the Cawnpore levy in co-operation with Lord Clyde's final campaign in Oude in 1858. He was promoted Surgeon-Major in 1863, retired in March 1871, and was promoted Deputy-Surgeon General in April 1874. He was a man of amiable and upright disposition, and discharged the varied duties which fell to his lot with zeal and efficiency.

PLAGUE IN BOMBAY.

The plague in Bombay is not dying out by any means as fast as many would wish, having shown a tendency to diminish, it is now in the most disappointing manner again showing a tendency to increase.

The following table shows the decline and rise in plague during the last nine weeks.—

Week ending	24th May	...	... 101
,,	31st ,,	...	... 84
,,	7th June	...	... 44
,,	14th ,,	...	... 26
,,	21st ,,	...	... 15
,,	28th ,,	...	... 53
,,	5th July	...	... 38
,,	12th ,,	...	... 53
,,	19th ,,	...	... 68

In comparison with this Calcutta may well congratulate herself.

It is too early as yet to pronounce any opinion on the Bombay increase, or to forecast the chances of a fresh recrudescence, still the figures are not encouraging and they will be anxiously watched.

TREATMENT OF PELVIC SUPPURATION BY INCISION OF THE POSTERIOR CUL-DE-SAC.

M. M. Quenu and Ricard consider that this procedure is a matter of urgency where there is a collection of pus due to *acute* peri-uterine suppuration.

When the collection presents in the vagina, the former incises the most prominent point, when it does not present in the vagina he incises the cervical mucous membrane, and separates it along the posterior aspect of the uterus until the collection is reached.

On the other hand when the pelvic suppuration is *chronic*, though the vaginal incision may be indicated, he does not regard it as the best treatment, it is only a temporary measure, the first step towards radical intervention.

Mr. Ricard thinks that this incision in *chronic* pelvic suppuration can only bring about a temporary improvement.

For complete cure other measures will be necessary, either a laparotomy or a vaginal hysterectomy according to circumstances.

THE FAMOUS DECLARATION OF AMERICAN INDEPENDENCE.

All right thinking men and women will read the following lines with pleasure and with pride. They form the text of the Declaration of American Independence, made and signed and sealed on the 4th day of July, 1786. We quote from J. C. Ridpath's History of the United States of America, page 310, a book which every member of the domiciled British Community of India should read, mark, learn and inwardly digest :—

"The leading principles of the Declaration of Independence are these : That all men are created equal; that all have a natural right to liberty and the pursuit of happiness, that human governments are instituted for the sole purpose of securing the welfare of the people; that the people have a natural right to alter their government whenever it becomes destructive of liberty ; that the government of George III had become destructive of liberty ; that the despotism of the King and his Ministers could be shown by a long list of indisputable proofs—and the proofs are given ; that time and again the colonies had humbly petitioned for a redress of grievances ; that all their petitions had been spurned with derision and contempt, that the king's irrational tyranny over his American subjects was no longer endurable ; that an appeal to the sword is preferable to slavery ; and that therefore, the United Colonies of America are, and of right ought to be, free and Independent States. To the support of this sublime declaration of principles, the members of the continental congress mutually pledged their lives, their fortunes and their sacred honor."

THE EDUCATION OF DEAF-MUTES IN INDIA.

Says the *British Medical Journal* :—There exist in the Indian Empire, according to the most recent census, some 150,000 deaf-mutes. No provision has hitherto been made for the special education of the class with the exception of a school in Bombay, containing about thirty pupils, and some private efforts of a limited description. A petition has recently been submitted to the Secretary of State for India by some educated deaf-mutes of Bombay, pointing out the absence of organised and adequate arrangements such as exist in all civilised countries for the purpose of enabling persons afflicted with the loss of the sense of hearing and speech to overcome, in so far as that is possible, the serious disability thereby entailed, so as to fit them to participate in the enjoyment and utilisation of life. The petition has been referred for the consideration of the Government of India, and it is certain that the charitable impulses of Indian administrations which have inspired such magnificent undertakings for the relief and restoration of those disabled by sickness, will result in the establishment of schools in all the principal centres of population for the special education of the deaf-mute.

A PHYSICIAN'S INFLUENCE.

Says the *Medical and Surgical Reporter*.—It has occurred to us many times in the past that physicians do not pay enough attention to the influence on their business, of the conduct of themselves and their families. With this in view we wish to call the attention of our readers to this point. In our estimation a physician practicing outside of the larger cities must be a married man in order to be a success, and must have for his life partner a woman who is discreet, for even though he tries to keep separate his professional and home life, many things are repeated as coming from the doctor's wife, "and, of course, she knows," which become so distorted in the rounds of gossip that the patient's family on hearing them will "never want that doctor again."

MEDICAL SLANDERERS.

THE case we referred to in our 1st August number, is thus commented on in the society paper of Calcutta—the *Indian Planters' Gazette* of the 30th July :—

"We are apparently on the fringe of a little breeze amongst the members of the medical profession in Calcutta, for the story as it is told us runs thus :—Foul slanders have recently been going the rounds of Calcutta society about a certain successful physician who is *not* in the service of Government. This gentleman tried in vain for some months to track the originator of these harmful attacks upon his character. Rumour pointed to a co-specialist, but this tactful reviler vented his poisonous darts in a manner that precluded direct evidence against him. A few days ago, however, a certain Surgeon-Major of the Indian Medical Service, who holds a sort of roving commission to do anything or nothing, whispered these spiteful and cruel insinuations to a friend and patient of this other doctor's, at a certain club in a hill station. The friend conveyed the hurtful story to his doctor, and the doctor instantly got his solicitors to demand a retractation and apology from the Surgeon-Major and threatened a legal prosecution otherwise. The Surgeon-Major, knowing there was only *one* witness against him, thought it best to *deny* having made the defamatory statements, and thus escape the rigors of the law. It is hoped, however, that this gallant representative of some branch or other of medical science, will now learn to be careful not to accuse his brother professionals in other branches of medical science, in the exercise of whose peculiar calling, there is the ever present likelihood of misrepresentation, which can be most satisfactorily cleared up when sterner facts are gone into."

We learn that these official slanderers are a "trinity" of mischief. One is the Surgeon-Major above referred to, who was threatened with prosecution, the second is a certain Brigade-Surgeon who is assisted in his back-biting and other mischievous and offensive propensities, by a junior member of the Indian Medical Service, who follows him like a shadow of evil. This trinity of scandal mongers are hereby warned to be careful of their cowardly and spiteful doings, for not only might they quite unexpectedly be caught tripping in this rather familiar game of stabbing their professional competitors in the dark, but the glass houses in which they themselves live, might, if the panes be broken, allow daylight to enter upon some uncanny truths and some still uglier skeletons.

REMARKABLE LIGHTNING ACCIDENT AT MADHUPUR.

ON Tuesday, the 9th of August, about 11-40 A M, at Madhupur station, on the E. I. Railway, 183 miles from Howrah, Miss LILLY SOLA, a young lady eighteen years of age, living with her sister, Mrs O'BRIEN, was struck by lightning, death being instantaneous. Her sister at the time was sewing in the next room; she, of course, heard the thunder, but never for a moment thought her house had been struck by lightning. Smelling something burning, she went into the next room, when to her surprise and consternation, she found the room full of smoke and flame. Miss SOLA was in flames, on a chair, bending on her left side and about to fall to the ground; she rushed to her aid, supporting her with one hand endeavouring to tear her clothes off, and extinguish the flames at the same time. The lightning all the while flashed about the room, fortunately without touching Mrs O'BRIEN in any way. Strange to say, a little pet dog of the deceased, which happened to come into the room at the time, was scorched about the hind legs.

There were about seven distinct crashes of thunder, and it is believed the place was struck about the fourth crash. The thunder-bolt at first struck a piece of iron attached to the top of a lathe in the opposite compound, used for drawing water out of a well. It glanced off, then came through the chimney of the house, ran along the iron girder in the roof, down the chandelier, smashing it and the furniture about the room to atoms. Deceased had just sat down at a table under the chandelier to write. The fluid caught the hairpins in her head melting some and twisting others, ran down the right leg, shattering her boot and clothes in shreds. It ran along the ground, and forced its way out in three different places.

The body was placed in an air-tight coffin and taken by the early morning train on the 10th instant to Asansole, to be enterred in the family vault, with Roman Catholic rites.

ABUSES IN THE I. M. S.

The Lancet says :—"The system of appointments in the Indian Medical and Civil services is open to much abuse. One constantly hears that So-and-so has been very fortunate in obtaining some particular berth. It is well known, however, that the so-called "luck" depends upon patronage. With the Civil Service the medical profession has of course little concern, but in both services the evil must be equally detrimental. If it does nothing else it stifles independence of character and original work. It would perhaps be equally unsatisfactory to grade the various appointments and to fill them by a process of pure seniority. The essence of the evil as it exists now probably lies in the power of patronage given to certain officials. A possible solution of the difficulty in properly filling up these posts might be found by the appointment of an independent board. Such a board with definite instructions to appoint on certain definite lines, might certainly remove some of the anomalies and grievances which now exist. The Government services naturally attract a large proportion of the ablest men, and the appointments under Government should be far removed from the semblance of favouritism. The best work will never be obtained until this principle is recognised and acted upon."

DEATH OF SURGEON GENERAL MORICE, I.M.S.

SURGEON-MAJOR-GENERAL JOHN CHARLES MORICE, I.M.S., who died recently in London, entered the Indian Medical Service in 1836, at the age of 21. He served in the Indian Mutiny, and was present at the relief of Lucknow, and at the siege and capture of that town, also at the engagements at Cawnpore, Seraighat, and Kalee Nadlee, and at the capture of Fategarh and Bareilly. He was also employed in the Hazara campaign of 1868, and was present at the operations on the Black Mountain, for which he received the medal and clasp. In 1885 he served in the Soudan campaign, was mentioned in despatches, and again received the war medal and clasp. The breakdown of his health, which compelled his retirement, alone prevented him from reaching the highest posts in India. He was a man of genial and happy disposition, and his loss is deeply lamented by his many friends.

A WELL-DESERVED ENCOMIUM ON DR. RAYE.

SIR MACKWORTH YOUNG concludes his review of the Punjab Dispensary Report for 1897 with the following eulogium :—"The thanks of the Lieutenant-Governor are due to Surgeon-Colonel RAYE for his report and for his administration of the Department throughout the year under review. Dr. RAYE is about to proceed on furlough, and it being understood that he will not return to duty, the Lieutenant-Governor desires, in conclusion, to convey to him his warmest acknowledgements of the professional skill and knowledge which have thrown light on many difficult and obscure questions during his tenure of the office of Inspector-General of Civil Hospitals, of his sympathetic co-operation with Government, and the cordial relations which he has maintained in his Department."

NEW MEMBERS OF THE INDIAN MEDICAL ASSOCIATION.

The following have joined the Association since our last publication —

F. A. Campbell, Assistant Surgeon, Stratford House, Nagpur.

Penelaw F. Harvey, Assistant Surgeon, D. 14 British Field Hospital Malakand Force, Camp Kohat.

George Meyer Rappa, Apothecary, Alar Gajah, Malacca.

K. Narain Chuckerbutty, Jokai Tea Co., Tippuk Tea Estate, Dibrugarh, Assam.

Laximan Kishoo, C.M.S., Harda District, Hoshengabad.

P. T. Velu, C.M.S., 83rd B. M. J.

C. Mangaya Nayda, C.M.S., Civil Station, Chicacole, Ganjam District.

Jwala Pershad, C.M.S., Kartingunj, Futehgar.

Kirjatle Raman Nambyar, L.M.S., Ponnin, Malabar.

G. Nalu Khan, C M S., Jail and Police Hospitals, Secunderabad.

Ghulam Ali, L.M.S., Military Hospital, Patiala.

THE COLLINS CASE.

Says the *Lancet*:—"A contemporary publishes a letter on the Collins case, in which the following question appears "Why is the West-end of London, full of private hospitals and nursing homes established mainly for these practices ?" We have never heard of such a hospital or home, nor do we believe that one exists. We may point out that did such a place exist, nothing would be easier than the detection and conviction of the persons conducting it, for the first discontented nurse or servant could supply to the police evidence sufficient for the purpose. A place used 'mainly" for the reception of abortion cases could readily be distinguished from the reputable home hospitals which have occasionally to admit cases of abortion from natural causes or its sequelæ.

THE GENERAL MEDICAL COUNCIL AND IRREGULAR PRACTICE.

Dr. Farquharson asked the Chancellor of the Exchequer whether, having regard to the fact that a sum of £5000 a year of public money was paid to the council of the Incorporated Law Society to assist them in purifying the legal profession, he could see his way to make a similar grant to the General Medical Council to enable them to undertake the prosecution of irregular medical practitioners.—Sir Michael Hicks-Beach replied that the sum of £2500—not £5000—was voted to the Incorporated Law Society for this purpose. It was a very small fraction of the yield from the special duty on solicitors' certificates which went to the Exchequer. No such tax was imposed upon medical practitioners and therefore no question of a similar grant arose.

NEW MEMBERS OF THE INDIAN MEDICAL ASSOCIATION PROVIDENT FUND.

The following have joined the I.M A Provident Fund as associate members since our last issue .—

Dr. Kirty Nurain Chuckerbutty, Tippuk Tea Estate, P.O Dibrugarh.

K. Krishnaiengar, C M S, Yemdur, Jahgir Dispensary.

Yaluri Ammayya, C.M.S., Govt. Lunatic Asylum, Waltair, Vizagapatam.

Robert James Owen, Assistant Surgeon, Medical Officer, I. M. Ry., Bina.

George Meyer Rappa, L.M.S., Alar Gajah, Malacca, Straits Settlements.

Ahmed Bakhsh, C.M.S., No. 1 Kohat Mountain Battery, Fort Lockhart.

K. Raman Nambyar, L.M.S., Civil Apothecary, Ponnni.

F. A. Campbell, Assistant Surgeon, Stratford House, Nagpur.

ANOMALISTIC MEDICAL PENSIONS.

In the Military Works and other Departments in India Warrant Officers and Honorary Commissioned Officers obtain Pension of their rank on their retirement, if only enjoying such rank for twenty-four hours, with the Indian Medical Subordinate Department, it is not so, luckless members of which service must serve three years in any rank are its established Pension is admissable, thus a man with near forty years' service of the one department can and does obtain less pension than one of thirty years in another. Is this department so utterly in the shade that no remedy is considered necessary for such an anomaly. Where are the heads of the Medical Services in India ? In leading strings.

PROGNOSTICS BY PROXY.

It is related of a noted English Bishop who had for years nursed the fear that he would some day become paralysed, that on one occasion at a dinner, he suddenly interrupted the guests at the table by exclaiming that his worst fears had been realised at last ; that he was paralysed in his right lower limb , that he had been pinching his thighs for some moments, and was unable to detect the slightest feeling A lady sitting next to him assured him that he was mistaken, for it was her limb he had been pinching instead of his, the silk of the lady's dress being difficult to detect from the silk of the Bishop's robe

AN ERNEST HART SCHOLARSHIP.

The Council of the British Medical Association resolved at its last meeting to found as a memorial of the late Mr. Ernest Hart a scholarship to be called "The Ernest Hart Memorial Scholarship for Preventive Medicine" It was felt that no more fitting means could be found to commemorate at once Mr Hart's great services to the British Medical Association and to the advancement of the study of preventive medicine The scholarship, which will be of the annual value of £200, will be tenable for two years

HEAD CLERK TO THE I. G. OF CIVIL HOSPITALS, BENGAL.

It is stated that the present head clerk, or as he is now styled, the Personal Assistant to the Inspector-General of Civil Hospitals, who resides with the Sanitary Commissioner of Bengal, possesses no form of medical or sanitary qualification, and that he has not had a single day's medical education. Yet the preparation of statistical health reports are, it is stated, entrusted to this assistant. We believe that if this statement is correct an immediate change ought to be made in the *personelle* of this office.

SHORT ITEMS.

Brigade Surgeon C. H. Joubert, professor of midwifery and general practitioner in Calcutta, has hurried home to England. It is rumoured that he is to take an active part in the Commisson now said to be sitting, to discover the bacillus of ectopic gestation, as also to assist in the deliberations of the Committee now said to be carrying on its labors in the Channel Islands, for the purpose of testing the weight carrying power of military captive balloons.

Says the *Medical and Surgical Reporter* :—Silence is probably the safest rule for the physician to follow in relation to secrets which come to him in his professional capacity. It may sometimes seem his duty to warn those interested, but he must be very sure of his ground before doing so A notable instance of the dangers incident to the utilization of knowledge gained under the seal of professional secrecy was furnished in the now celebrated case of Kitson vs. Playfair.

On Friday the 8th August the house of Lords passed the Government Bill for improving the methods of vaccination

but rejected an addendment which had been accepted by the Government and the house of Commons whereby the compulsory clause was waived, if conscientious objection was declared before a Magistrate. The House of Commons have maintained the amendment, but the Lords will probably not insist upon its rejection.

At the Bristol Assizes which were held recently, the Lord Chief Justice of England in alluding to the medical profession remarked, that he thought there was no profession in the world which rendered more entirely gratuitous service than the members of the medical profession, and added that so far as his experience went there were not the sordid considerations in this profession, which were present in others

In Japan not only is vaccination compulsory, but the law directs that revaccination shall be practised after every five years. In 1896, legal enactments were especially made for the introduction and distribution of vaccine, and calf lymph is exclusively employed, prepared with antiseptic precautions, Thus the Far East profits by the teaching of the West, and afterwards the West has to learn wisdom from the East.

The history of the so called Plague in Calcutta is, it is rumoured, to be written by an officer of the Royal Engineers, the precedent being that the Plague Report of the Government of India was written by a civilian (Mr. Nathan, C. S) We vote that the Report be entrusted to the Inspector-General of Civil Hospitals, Bengal, who has little or no work to do, or to his assistant, the Sanitary Commissioner of Bengal, who has still less to employ his time.

Mr. Lloyd, an ex-Military Assistant Surgeon, who holds the post of Superintendent of the Manicktolla Plague Hospital, was the subject of an enquiry as to his professional fitness for the position he holds The General Committee of the Calcutta Municipality upheld Mr. Lloyd's appointment and recommended his fitness for the same.

The number of officers to be admitted to the Indian Medical Service, at the examination held this month in London will probably be raised to twenty-seven, to supply the deficiencies caused by the late unusual demands for Medical Officers, and the abnormal invaliding due to restrictions placed upon ordinary leave.

There is nothing which cheers up your spirits like a dose of Epsom salts, They have gone out of vogue, but a tacit compliment is, notwithstanding, constantly being paid to them, for people still find the efficacy of the more expensive bottled waters which contain the salt.

Surgeon-General A. A. Gore, P. M. O Her Majesty's Forces in India, will, in all probability, be succeeded in December next, by Surgeon-General W. Taylor, M.D, at present employed on the staff of Major-General W. F. Gatacre C.B.

"My husband has all the virtues but one," remarked the wife of a struggling young doctor. "What is that?" asked her sympathetic friend. "Patients," replied the young wife.

Surgeon-Major Herbert Joyki Dyson who occupies the post of Sanitary Commissioner of Bengal; is L. S. A. Lond. 1865, M.R.C.S., Eng. 1869; and F.R.C.S., 1884. He holds no Diploma in Public Health nor in Sanitary Science.

Surgeon-Lieutenant-Colonel J. E. Fitzpatrick has been permitted to retire from the service and will be succeeded at Coimbatore, where he has been stationed for so many years by Surgeon-Captain D Simpson.

At a meeting of the University court held on 19th July, Charles Hunter Stewart, M.B., D.Sc., F.R.S.E., was elected to the Bruce and John Usher chair of Public Health in the University of Edinburgh.

The Horse Guards Army Order authorising the formation of a Royal Army Medical Corps, has been received here, and is applicable to officers serving in India, who from to-day use new ranks therein sanctioned.

Dr. Duval, Surgeon-Major of the 125th Regiment of the French Infantry, has been authorised to follow the British expedition on the march to Khartoum. Dr. Duval followed the expedition against the Afridis

Dr. Watt Black, after a service of nearly thirty years, has resigned the appointment of Obstetric Physician to Charing Cross Hospital, London, and has been succeeded by Dr Amand Routh.

The last issue of the *London Gazette* contains the announcement of the appointment of Sir William Henry Broadbent, Bart., M.D., F.R.C.P., to be one of Her Majesty's Physicians Extraordinary, in the room of the late Sir Richard Quain.

At a recent meeting of the Governors of Wellington College, Sir Joseph Fayrer, Bart., K.C.S.I., was elected a Governor, and the election has been approved by Her Majesty.

Here is a bull for you, *The Medical Age* of 25th June says :—"Sir James Paget, the veterinary surgeon, is very ill." A *veteran*, but *not* a vet to be sure.

Dr. Masina, a well-known surgeon of Bombay, has obtained the F.R.C.S. of London. He is not the first man from India who has gained this much-coveted distinction.

Dr. F. M. Graham, the Medical Officer in charge of Jammu dispensaries, has resigned the state service, owing to ill-health, and will be shortly leaving for England.

We have reason to believe that the new military titles will *not* be made applicable to officers of the Indian Medical Service, who are not a *Corps* but a department. Their quasi civil position precludes their getting purely military titles.

It has been decided that the monument to Professor Charcot will be formally unveiled at the Salpetriere in Paris on 23d October.

Surgeon-Lieutenant-Colonel E. Sevill, Officiating Civil Surgeon of Howrah, is allowed privilege leave for three months.

Surgeon-Captain C. R. M. Green is appointed to act as Civil Surgeon of Howrah.

The Medical Register and Directory of the Indian Empire is now ready and is issuing to all registered practitioners. No time should be lost to secure copies.

THE WHOLE ASPECT OF THE ANGLO-INDIAN QUESTION.*

DR. WALLACE, who was received with loud cheers, then said :—Mr. President, Ladies and Gentlemen I have been asked to propose a Resolution which denotes an important, though perhaps radical, change in the constitution, rules and general working of our Association.

THE PAST 20 YEARS' WORK.

For twenty years we have worked on narrow and illiberal lines, which, however, well intentionally designed, have proved unsuited to the advancement of our cause. By this assertion of a very plain and undeniable fact, I have not the remotest desire to discredit the projectors of old schemes. What may have appeared suitable to the circumstances and socio-political position of the Domiciled British Community of India two decades ago, can hardly be logically held to be suitable to-day.

HOW WE STAND TO-DAY.

The times have changed, and we must change with the times. The social questions that confronted our predecessors still confront us, and they must be solved. But the political horizon of the great Anglo-Indian question bristles with more important and more serious difficulties than ever before. Hence we are compelled to change our plans, to alter our tactics, to widen our sphere of action and to prepare ourselves for a great struggle to obtain for our community a just and equitable recognition of its political position and of its rights and privileges in common with other communities in the Indian Empire.

WHO ARE WE?

You have all doubtless acquainted yourselves with the details of the Report of the Deputation of the Anglo-Indian Associations, which waited on the Secretary of State for India in London in July last year. That Report is full of serious topics that concern the well-being of the Domiciled British Community of India. Having taken a share in this Deputation, I feel it my solemn duty to urge upon my countrymen the supreme need for a continuance of the agitation of our cause in England, so that by the exercise of political power in London, our cause will not only not languish, but secure the only leverage that will bring success to our efforts to win a proper and just recognition of our national status from the Government of India and the India Office, and the granting of those rights and privileges, which we as Britishers, and the descendants of Britishers, have a legal right to claim in common with our kinsfolk in the Home-land.

OUR PRESENT DUTY.

A plain duty lies before us to-day. Whatever may have been the political errors of the Anglo-Indian race in the past, they must not be forgotten. For our errors teach us valuable lessons, but they must not discourage nor baulk us, they must energise us to new and truer efforts, they must inspire us with zeal and enthusiasm. With the light and reasoning and experience of past years, let us redeem the present from failure, and the future of our people will be pregnant with happy results.

OUR RIGHTFUL POSITION.

It will be observed in the London *Times'* report of the Deputation to the Secretary of State for India in July last, that our people are referred to as "*the Domiciled British Community of India.*" This is exactly what we are, Britishers all of us. Ninety per cent. of us are so by race, by nationality, and by every tie that binds us to England and to its Throne. The minority of us, who may be descended from other European parentage, are European British-born subjects by assimilation, and therefore all of us are lawfully embraced under the inspiring name of BRITISH. This name is a costly heritage, and it is our legal right. By law a man claims race and nationality from his father. The admixture in Indian blood in the sons of Englishmen, Scotchmen or Irishmen, can never rob them of their inalienable national heritage. No Englishman considers himself any less an Englishman because his mother was a French woman. Britishers we are and Britishers we ever must and shall be. Once we relinquish this name and permit ourselves to be styled "Eurasians" or Statutory Natives of India," we become estranged from our proud heritage as Britishers.

THE HARMFUL INFLUENCE OF CLASS NAMES

Let me prove how this theory has been disastrously worked against us. Some years ago a member of the Bengal Secretariat thought he would coin some epithet for the new race of British descendants in India, who were fast becoming a power in the land; so he thought the word "Eurasian" would suit, and it was launched on the classical nomenclature of State documents, as the name and title of this new race. But its deep and insidious sting was ever felt as a stigma and a curse by the men and women and children who were henceforth to rally round this hybrid standard. This name once accepted, was intended to alienate the honored designation of "Britisher,' and the process of isolation, ostracism and degradation, would in time have been rendered complete. Years went by, and it was found that the people called "Eurasians," though still meek and intensely loyal, were growing in numerical strength by leaps and bounds, and what was still worse, the inherent intellectual, moral and physical qualities of the race, were being exhibited to so much public advantage, that soon the distinguished and coveted positions in all the State services in which recruitment of Britishers in India was permitted, were being occupied by these self-made, sober-headed, honest, hardworking, loyal-souled "Eurasians" The credit of coining or inventing this term Eurasian, is given to the Marquis of Hastings, Governor-General of India, and to a certain Mr. METCALFE of the Bengal Civil Service. Certain it is, however, that as far back as 1830, when Mr. RICKETTS, the first representative of the Domiciled British Community, laid our cause before Parliament, the term "Eurasian," was then staunchly objected to. Often since then, efforts have been made to dislodge this insulting epithet from official usage, but no really determined protest has ever been hurled against it. Finding that the term "Eurasian" was not sufficient to politically emasculate our people, another official cynic conceived the idea, that the "Domiciled British Community" should be induced to accept the designation of "Statutory Natives of India," under the seductive inducement that with the acceptation of this classification of our people, they should lose nothing, but rather gain the right of admission to the "Statutory Civil Service," which was about to be inaugurated for the sole benefit of "Natives of India." The so-called "Statutory Civil Service" turned out to be one of the biggest shams of the Victorean era.

THE POLITICAL WRONG DONE TO BRITISHERS IN INDIA.

From the date of the promulgation of the terms of the Government Resolution defining the designation "Statutory Natives of India," as including the whole Domiciled British Community, Europeans and their descendants who had permanently made India their home, and native Indians, the Government of India and the India Office, boldly initiated their long secretly devised plan of depriving the Domiciled British Community of India of all participation in rising to the highest positions in the Departmental Services of India.

* A Speech by Dr. [illegible] Wallace, at the [illegible] Meeting of the Anglo-Indian Association, held at the Dalhousie Institute on the 26th March, 1898. Mr. L. [illegible] presiding.

[illegible] Secretariats and the hierarchy of the Indian Office was now on the eve of accomplishment.

WE MUST ACT AT ONCE AND ACT TOGETHER.

THE official victory is not yet won, but unless our people "FORM SQUARE" and unitedly face the grave danger that now threatens to overwhelm us, unless we put forth all our constitutional strength, unless we make our voice heard in unison, in clear and unmistaken and determined protest, the policy of the present Government will cast us forth from our estate and we shall indeed be degraded.

OUR CLAIMS TO STATE RECOGNITION.

Integrity, merit and ability have been our only passports to advancement in the service of our Queen and Country in all the long years of British-Indian History. By these unfailing qualities we have won position and trust and honor in the past, and now without fault, for no lawful or just reason, we are not only to lose our God-given rights in the land of our birth, in the land of our adoption, in the land in which we own and claim a rightful equality with the kinsfolk of our fathers, our fathers who fought and bled and died to win this land for England, but we are to be degraded with the brand of inferiority and subordination to our British compeers. That this is the true interpretation of the recent edicts of the Government of India and of the India Office, may be seen by the terms of the orders which control admission to the Departmental Services of India.

THE ENGLISHMAN IN ENGLAND AND INDIA, ONE SUPERIOR THE OTHER INFERIOR.

The State has now decided and ordained that all the Departmental Services of India shall henceforth be divided into two classes one THE IMPERIAL, and the other THE PROVINCIAL. The Imperial shall be recruited in England, with the salaries of its members ranging from five hundred to as many thousands of rupees per mensem. The Provincial shall be recruited among "Statutory Natives of India," (*i.e*, Europeans and their descendants, and Natives), with the salaries of its members ranging from any meagre sum to start with, but rising only to a few hundreds of rupees per mensem! But *subordinates*, nothing but *subordinates*, you shall ever be, because you are not *Britishers*, but Statutory Natives of India!! Thus is the tyrannical culmination of the selfish devices of the India Office and of the Government of India. Will our people sit silently under such cruel inflictions?—Never!

THE WRONG OF SUCH ACTION.

Can the Government argue in support of its conduct towards the Domiciled British Community, that the sections of its Departmental Services which it purposes officering by men from England, have not been ably, honorably, efficiently and creditably filled in the past by members of the Domiciled British Community? It dare not do so, and it cannot do so if the solemn truth be told. Have not Anglo-Indians filled with infinite credit, the highest appointments in the Judicial, Educational, Administrative, Financial, Railway, Telegraph, Engineering, Medical, Survey, Political, Postal and every other Department of the State in India, and having done so, (which the records of our Secretariats will abundantly and conclusively prove), why should they be deprived of those much coveted openings for genuine ability and meritorious and faithful service? This signifies the perpetual defacement of the sons of Britons. They are ever to be the subordinates and the inferiors of their Home-bred kinsfolk. Birth and education in India have now an ominous and degrading significance, for there is now officially stamped upon them, with the great seal of the State we have so faithfully served, the impress of class inferiority. Surely this is an outrage on the [illegible] which is unparalleled in the history of [illegible] Britain, and which it would be disloyalty to the British name to bear in silence. In these days of universal British Federalism, we have only to make our grievances understood, to evoke a tariff of sympathetic indignation against this subtilitious and unmeaning official conspiracy against the true interests of the Empire.

FALSE ARGUMENTS

The argument used by the India Office in support of this policy of importing British labor from England is, that as an employer of labor, it has a perfect right to utilise the best material it can obtain. We raise no objection to the virtue of this excellent principle, but before the value of any two commodities can be proved, they must be compared. Comparison with regard to the superior fitness of one candidate over another, can only be honestly gauged by competitive examinations, and we claim that we are able to put as good men into the field of State labor as England can, and we base this claim on the unimpeachable verdict of our services in the past. We therefore claim the right to compete in India with our British compeers for British posts in the Higher Indian Services. It will be a cruel injustice to exclude us from such competition in India. WE ASK FOR A FAIR FIELD AND NO FAVOR in competition, but we will never submit to being outcasted and stigmatised, even alongside of the best and noblest of England's sons who have not the stain of birth in a tropical clime.

No better plan could have been adopted to divert the affection of a truly loyal people from a Government, which by such transparent injustice, is bound to lose the respect and sympathy of a large and growing section of its subjects, whose power and importance are little known and understood and who, for their hitherto unswerving fealty to their rulers, have been rewarded with neglect and contumely.

The varied services of the Anglo-Indian or Domiciled British Community in the administration of India, were faithfully and graphically recorded by the Deputation to the Secretary of State for India, in their testimony at the India Office in London, on the 23rd July 1897.

Our Association has recently approached His Excellency the Viceroy to communicate to us the decision of the India Office in regard to the important matters concerning our community, which were placed before Lord George Hamilton by our Deputation in July last. The Viceroy in reply has stated, that the whole subject is receiving the serious consideration of the Government, but we have received no further light on this question.

WHAT MUST BE DONE.

Read the Report of our London Deputation and then decide if the recent policy of the Government of India and of the India Office towards the Domiciled British Community is not worthy of unqualified condemnation.

In view of the disabilities and grievances under which we labor at the hands of the Government, certain steps are necessary:—

1. Our combination under one standard and that standard to bear the name of our true and lawful national position.

2. A clear declaration of our disabilities and grievances to the Government of India and the India Office.

3. A solemn and fixed determination to adopt any and every constitutional means to induce the Government to acknowledge our rights in common with its imported British subjects.

1. OUR STANDARD. OUR ASSOCIATIONS all over the country, should bear one definite name, such as will fitly

[illegible] of our community, who may be either [illegible] descent, or that small minority who are of other European blood, [illegible] and who are permanently domiciled in India, all forming important sections of our British Empire in this land. It is proposed to designate our UNION, "THE IMPERIAL ANGLO-INDIAN ASSOCIATION or THE ASSOCIATION OF THE DOMICILED BRITISH COMMUNITY OF INDIA" having branches all over the country. Each Branch would have its own central working bureau, but we should endeavor to form a NATIONAL COUNCIL, having representatives from each of the Branches. In the phrase "Domiciled British Community of India" we have not only a correct legal definition of our people and of our socio-political position, but we have a name that will charm the proudest of Britishers and other Europeans to our standard The absence of a definitive British title for our Associations, has been and is the great stumbling-block to our union and cohesion. Distinctions of color are bridged over by a NAME, for that name evokes a spirit of PATRIOTISM and inspires TRUE UNITY. We should bear this vitally important fact in mind, for in our present selection of a NAME for our people and our ASSOCIATIONS, we must be guided by the bitter experiences of the past, to shape the political foresight of the near future. Then we have the term IMPERIAL. This bears the impress of loyalty To-day the political atmosphere of England is charged with the spirit of IMPERIALISM and this word is now used to convey the idea of combination and cohesion on the part of England's world-wide Colonies and territorial possessions with the mother country. Hence we are not adopting a name that belongs only to the Imperial Government, but one which is the common national property of every loyal true-hearted body of Colonists all the world over Besides the term IMPERIAL denotes our policy as one of loyal unity with our rulers and with the Empire of India In no way can this word 'Imperial' be correctly pronounced as impolitic in connection with the designation of our Associations

2 OUR DISABILITIES AND GRIEVANCES may be focussed under the following heads :—

1 OUR EXCLUSION FROM the higher departmental appointments of India, now being reserved for imported Englishmen in the grades known as THE IMPERIAL SERVICE

2. OUR EXCLUSION FROM the benefits OF HIGHER STATE EDUCATION, which are freely given to Natives, in the form of State built and State-supported Colleges in all the Presidency and Provincial Towns of India

3 OUR EXCLUSION FROM an important avenue of labor—THE SERVICE OF ARMS—which is freely open to the natives of the country. While the Government accepts the gratuitous service of no less than 35,000 of our community as volunteer soldiers, it refuses to accept us as paid soldiers, and to form local regiments from our people, who are willing to accept exactly similar terms and tests for admission to the army, as are applied to British soldiers in England In order to show the enormous military strength of the Domiciled British Community of India, every man capable of bearing arms should enrol himself as a Volunteer. What a silent but eloquent estimate of our political strength could be exhibited by a force of 500,000 citizen soldiers. In this connection it is of vital importance to our Cause that our people join heartily in the Volunteer movement. Let the strength and power of our people be shown in BAYONETS and let us point to them in the motto of the Volunteer movement, " DEFENCE, NOT DEFIANCE !"

4. OUR EXCLUSION FROM ENLISTMENT IN BRITISH [illegible] We are not asking [illegible] is alleged on [illegible] All restrictions should be removed.

5. THE LOSS OF OUR RIGHTS AND PRIVILEGES AS BRITISHERS and the unlawful classification of our people as "Statutory Natives of India," with all its attendant ostracism, degradation and perpetual subordination.

3. THE CONSTITUTIONAL MEANS TO BE ADOPTED :

First and foremost, the Domiciled British Community throughout the Indian Empire must be roused to a very keen sense of the political dangers that threaten its existence and that render its prospects extremely gloomy indeed. This must be done by a political manifesto, setting forth the whole circumstances of their case, distributed broadcast over the length and breadth of the country. Secondly, the keenest and the most persistent energetic efforts must be made to unite the whole community into one solid Association Each large city in the Presidencies and Provinces must be made the centre of unflagging activity to enlist members and to raise funds. Money is the *sine qua non* of this movement, the sinews of war for every forward movement we take in our great socio-political campaign. Recent calculations as to the numerical strength of the Domiciled British Community go to prove that it is over a million strong. Our official critics are eternally harping on the poverty and helplessness of our community. They say that a Britisher or a European born and educated in the Tropics, or those of us of mixed descent similarly situated, are deficient of backbone and of those moral, physical and intellectual qualities that they claim are the unquestionable possession of the English-trained subjects of our Queen. It is very easy to say what is false, but is very difficult and often most inconvenient to prove an off-hand statement to be a fact We defy our critics to PROVE their statements. Where in the country in this world that has not its moral, intellectual and physical units? Anglo Indians are no exception to the rule This long fostered and untruthful libel against our race must however, be proved to be untrue Our rulers must be made to feel that it is untrue.

UNITE, UNITE, UNITE

Were our community to unite as one man, with a force of 500,000 effective volunteers ready to back its assertions and its claims, our official critics would be silenced most effectually The days of humble supplications have gone by. The era of manly independence has dawned Let us seize the opportunity and henceforth demand our rights as men.

THE NEW ASSOCIATION

In Calcutta, we propose by our new constitution and rules to inaugurate the IMPERIAL ANGLO-INDIAN ASSOCIATION on a thoroughly representative, sturdy and lasting basis. It aims at true representation It demands practical interest and energy on the part of its representatives. It seeks individual co-operation, and aspires to universal unity You will observe that in order to be a Director of the Association the aspirant must have the support of one hundred members and he must bring to the common purse of the Association Rs. 100 yearly. In plain words he must enlist the sympathy and interest of one hundred people in their own cause and he must collect from them 1 Re. per head per annum. Calcutta has a domiciled British population of over 27,000. I think it will be an easy matter to find 100 manly, enthusiastic members, who will immediately undertake the responsibility and the honor of becoming Directors of our Association. In less than six months, by the faithful and earnest carrying out of our plans, these 100 Directors will each have found 100 supporters, so that we can reckon on having, be

[illegible] your individual and enthusiastic determination to make it a success. Each Presidency and Province will in its turn adopt our scheme, I am sure, and in a short time the welcoming of the latent political power of the Domiciled British Community will be manifested both to the Government of India, and to that stronghold of prejudice and maladministration—the India Office of London.

Having organised our Association throughout the country, we must concentrate our energies in ventilating our claims on British soil, before the British people and in the British Parliament, for if British India's political battles are to be won, they must be won by the edict that shall emanate from the hearts of our kinsfolk in Great Britain and from that justly revered Tribunal of Equity, the Parliament of England. (Loud Applause).

LETTER FROM THE COUNCIL OF THE IMPERIAL ANGLO-INDIAN ASSOCIATION TO ALL MEMBERS OF THIS DOMICILED BRITISH COMMUNITY OF INDIA.

TO OUR FELLOW-COUNTRYMEN IN INDIA

FRIENDS,—The Council of the Imperial Anglo-Indian Association feels that the time has come when the Domiciled European Community must all be inseparably united in defence of our common interests, our rights, our socio-political position, and our prospects in the land, which we either from choice, from business connections, or from force of circumstances have made our temporary Domicile or our permanent home It is keenly felt that as a class the domiciled British and European Community and their descendants in India, labor under many disadvantages in comparison with the Native Indian community, and the State-imported European The native Indian by force of persistent agitation has compelled the Government to acknowledge his socio-political position, and thus he has a seat in the Councils of the Empire, and a voice in legislation in all that concerns the well being of his countrymen He finds a place of honor in the highest tribunals of the country, and his social and material welfare receive the most generous attention and assistance of the Government For do we not find the whole Empire of India studded with primary and high schools and handsomely equipped colleges officered by highly-paid and highly cultured European professors, all supported entirely by the State for the exclusive use of Hindus and Mohammedans Do we not also find the surplus population employed by thousands in the Indian Army, and does not the expenditure of millions of money in Relief Works, prove the anxious concern of our Government for the well being, contentment and happiness of our Indian fellow subjects! While we mention these evidences of State favor towards a large and important section of the inhabitants of this country, we have not the smallest desire to see our Indian brethren deprived of any of the blessings of good and righteous government. But good and righteous government demands an *equality of rights and privileges*, FAIR PLAY, A FAIR FIELD AND NO FAVOR, and every subject has a right to demand this at the hands of the Government, and it is his duty to himself, to his country, to his people, to his home and to his family to see that he gets it. He must not be satisfied until the laws of the land are equitably and righteously administered, so that his community and his people hold a position, both social and political, of perfect equality, in all that relates to his rights and privileges in the land in which he lives.

[illegible] to import European labor into all the Governmental departments, with a cruel, crushing and scandalous disregard for the fitness of the European material which is to be found in India. It is the claim of the Domiciled British and European Community that it can provide suitable candidates for every appointment in India which the State decides should be filled by persons of British or European blood or descent. It claims that the history of the British Indian administration in the past more than justifies this claim, and it now urges that it has a right to demand a fair share of all British appointments in India in open competition with imported British labour. It demands that neither prejudice nor favor should decide the fitness of candidates, but that comparison of merit as gauged by fair and honest competition, be the only test applied. It further protests that the Domiciled British and European Community and their descendants suffer under very serious disabilities and hindrances to advancement in the public services of India as compared with imported British labor; for while the imported Britisher has highly equipped Colleges, such as COOPER'S HILL and others open to him and maintained at India's expense, the Domiciled Britisher has no colleges of such standing and educational facilities open to him The Engineering College of Roorkee, although not so efficiently equipped as COOPER'S HILL, has, in spite of its disadvantages, turned out some of the best Engineers and Surveyors that India has ever seen. There is no Military College in India, and no facilities for opening up a military career for our lads Territorial or Local European Regiments are not allowed by the State, though over 35,000 of our people are loyally giving their time and their services to the Government in defence of its power and prestige as Volunteers. We have no facilities for training our boys as soldiers, nor any inducements that they should adopt the profession of arms Compare this disability of the domiciled Britisher with the numerous military training schools in England, and we realise the hardship and injustice of our position. There is no Naval College, and not a single Training-Ship in Indian waters for educating our boys for a career at sea, while training-ships, kept up at India's expense, are maintained for British lads intended for work in the Indian Marine and the Pilot Service. This presents another important disability.

These are some of our disabilities, and for their removal, the Imperial Anglo-Indian Association will work with all its energy and ability There are numerous social questions that also need public attention, and these, too, will be fully dealt with as time and opportunity permit Meanwhile the Council earnestly pleads for the united efforts of our people throughout India as the only means of ensuring victory to our cause If we UNITE AS ONE MAN, if we show a very strong numerical front to the Government, if we indicate by our policy that we shall never cease to agitate our cause, nor relax in our determination to have our just and righteous claims conceded by the Government, both here and in England, we shall find all our hopes and aspirations as a free, independent and united community more than fully realised in a short space of time.

No member of the Domiciled British and European community should hold aloof from the Imperial Anglo-Indian Association. Whether servants of Government, or engaged in private industry, we may have sold our talents, our labor, and our time, but we have not enslaved our souls, nor bartered away our liberty, nor renounced our manhood. We

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Table of the Clubs,

THE COUNCIL

OF THE IMPERIAL ANGLO-INDIAN ASSOCIATION.

MEMORANDUM OF ASSOCIATION OF THE IMPERIAL ANGLO-INDIAN ASSOCIATION.

1. The name of the Society is "The Imperial Anglo-Indian Association."

2. All members of the Domiciled British and other European Communities and their Descendants in India may become members of this Association.

3. The Head Office of this Association shall be at Calcutta, with Branches all over the Indian Empire.

4. The aim of this Association shall be to advance the interests of the classes described in clause 2, as one of the surest means of consolidating and popularising British power in India and preventing the grave political dangers and complications foreseen by many British statesmen in India.

5. The Governing body of the Association in Calcutta shall consist of a Council comprising—

(*a*) 1 President,
(*b*) 4 Vice-Presidents,
(*c*) 12 Members,

all of whom shall be elected annually.

The first Council of the Association shall be :—

NAME.	OCCUPATION.	CALCUTTA ADDRESS.
L. P. Pugh M.A., LL.B (*President.*)	Barrister-at-law	6, Old Post Office Street.
Very Rev. Fr. V. Marchal, S.J. (*Vice-President.*)	Clergyman	3, Dhurrumtollah Street.
F. J. Rowe, M.A. (*Vice-President.*)	Bengal Education Service.	11, London Street.
J. A. Baines.	Survey of India	67, Wellesley Street.
J. Oleghorn, C.E.	Consulting Engineer	2, Pearn Bagan, Ballygunge.
C. P. Crouch.	District Superintendent of Police	6, Chowringhee Lane.
L. W. D'Cruz, B.A.	Head Master, Calcutta Free School	86, Free School Street.
C. E. Dissent.	Assistant Consulting Engr. for Rys (*Retired*)	61, Wellesley Street.
C. R. Hardless.	Supr., Central Telegraph Office.	83, Dixon's Lane.
H. C. Hodgkins.	Surgeon-Major, I.M.S.	Medical Coll., Calcutta.
H. St. J. Jackson.	Journalist	58, Elliott Road.
A. N. W. James.	Survey of India	31, Elliott Road.
G. A. Lorimer, M.A.	Professor, Doveton College.	86, Ripon Street.
E. L. Martyr.	Registrar, Bengal Secretariat.	3 & 3, Park Lane.
M. A. Mendes.	Superintendent Govt of India Central Press.	240, Bow Bazar Street.
T. A Milne.	Survey of India	16, Taltolla Bazar Street
C. J. A. Pritchard.	Printer	256, Bow Bazar Street.
C. V Pritchard.	Journalist	256, Bow Bazar Street.
H. A Stark, B.A.	Provincial Education Service	19, Wellesley Street.
W. Stotesbury.	Survey of India	93, Ripon Street.
C. W Thomas.	Church Missionary Society	11, Mission Row.
H. A. Twidale.	Bench Clerk, High Court	20 Park Lane.
J. R. Wallace, M.D., F.R.C.S	Consulting Physician and Surgeon.	50, Park Street.
A. Williams.	Broker	19, Taltolla Bazar Street
A. J. Wilson.	Survey of India	13, Chapel Rd, Hastings
J. S. Zemin, F.C.U.	Principal, Doveton College.	48, Free School Street

6. The objects of the Association are—

a.—The secure representation for its Community in the Councils of the Indian Empire on terms of equality with other communities.

b.—To secure [redacted] equality [redacted] visiting stations of its Community [redacted] appointments of Government [redacted] country, more especially in [redacted] education, industrial pursuits [redacted]

d.—To promote the material, [redacted] advancement of its Community and to protect the rights and status of British and European Residents of India and their descendants, and to further their common interests by every possible constitutional means.

e.—To adopt or promote such philanthropic, economic, industrial, educational or other measures as may be best calculated to better the condition of the various classes of its Community.

f.—To found and maintain libraries, or reading-rooms for general use among the members, and to establish a newspaper, or magazine to advocate the cause of its Community.

g.—To acquire funds, lands, buildings and other movable property, and to hold the same for, and in the interests of, the Association.

RULES OF THE IMPERIAL ANGLO-INDIAN ASSOCIATION.

(*Registered with the Memorandum of Association.*)

THE NAME AND OBJECTS OF THE ASSOCIATION.

1. The name and objects of the Association are those defined in the Memorandum of Association.

MEMBERSHIP.

2. All Members of the Domiciled British and European Community and their Descendants, of either sex, over the age of eighteen years, residing in India, shall be eligible as Members.

3. Persons desirous of entering the Association shall fill up and sign the following form, which shall be forwarded to the Secretary of the Association :—

I hereby agree to become a Member of the Imperial Anglo-Indian Association (or the Association of the Domiciled British and European Community and their Descendants in India), and I undertake to support its cause to the best of my ability. I further agree to pay a sum of one rupee annually to the funds of the Association.

Name———————————————,
Occupation———————————————,
Address———————————————,
Dated the———————————*189* .

4. Membership does not involve the payment of any fixed subscription; but Members may contribute any sum at any time to the funds of the Association. The sum paid to the Association by each Director shall, however, always be reckoned as legal tender of subscriptions for and on behalf of each and all of his constituents.

PRIVILEGES OF MEMBERS.

5. Members shall have the following privileges :—

(*a*). They may attend all General Meetings.

(*b*). They may speak and vote at such meetings.

(*c*). They may have access to the office and premises of the Association, subject to any restrictions regulations imposed.

(*d*). They may vote on all questions referred to the Association at large.

(*e*). They may fill any paid or unpaid offices of the Association.

(*f*). They may participate in any other advantages arising out of the working of the Association.

Administration of the Association.

7. The executive control of the Association shall be vested in a Council, consisting of a President, four Vice-Presidents, and twelve Members, to be elected by the Directors, of whom there shall be not less than fifty, from among themselves. The Council shall hold office for one year, but its Members shall be eligible for re-election.

Eligibility of Directors.

8. Any Member of the Association shall be eligible for the position of Director. It shall be incumbent on such Member to prove his interest in the Association, his right to be considered representative, and his ability to help the cause, by furnishing the Council, through the Secretary, with a *bona-fide* list of one hundred members who support his candidature, such members not being borne on the list of any other Director. He shall also pay to the Treasurer of the Association on or before the first day of March, for each year of his Directorship, the sum of Rupees one hundred, or one Rupee for each Member, which he may subscribe himself or collect from his constituents, and such sum shall be reckoned as legal tender for and on behalf of each of his one hundred constituents.

Election of Council and Directors.

9. The first Council of the Association shall be formed of the Members composing the Board of Directors of the E & A.-I. Association at the time of the registration of the I A.-I. Association into which the E. & A.-I. Association shall thereby be merged.

10. It shall be the duty of the Council in office at the time of the receipt of any application from any Member of the Association claiming to be recognised as a Director under Rule 8, to satisfy themselves that the conditions of the said rule have been fulfilled.

11. During the first week of March in each year, the Directors shall meet and elect the Council from among their own members by vote. The elections of the President and Vice-Presidents shall take place at the same time and place and in the same way.

12. Notice of not less than seven days shall be given to every Director of the election of the Council, and this by advertisement in the newspapers or by letter; and it shall be competent to the Council, for sufficient reason, of which they shall be the sole judges, either to postpone the election in the first instance or to adjourn it after it has been once fixed; provided that the postponement or adjournment in no case can put off the election beyond the 20th day of March; and that due notice thereof be given to all Directors.

13. Vacancies occurring in the Council between the regular elections shall be filled up by the Council from among the Directors.

14. A Member of the Council shall cease to hold office as such—

(*a*). If he hold any place of profit under the Association.

(*b*). If he absents himself from three consecutive ordinary meetings of the Council without assigning sufficient reason in writing.

(*c*). If he shall send in his resignation to the Secretary in writing.

15. The Directors shall personally interest themselves in all matters that pertain to the aims and objects of the Association. To this end they shall be formed into Committees dealing with subjects kindred to the various objects of the

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Powers of the Council.

16. The Council may from time to time make, amend, suspend, or repeal Bye-laws for the regulation inter alia of the proceedings of the Council, of Committees, the performance of their duties by the officers, agents and servants of the Association, and generally for the management of its affairs and property.

17. The Council may exercise all such powers, and do all such acts as might be exercised and done by the Association, save such as are restricted to the Association by act XXI, of 1860. Neither the Council nor any Member, Director, Officer, or Agent of the Association shall have any authority to involve any member in any personal responsibility touching the administration of its affairs.

Proceedings of the Council and of its Committees.

18. The council shall meet monthly, or oftener, if necessary, for the despatch of business, and five Members shall form a quorum.

19. The President, or, in his absence, a Vice-President, or five Members of the Council, may at any time call a Special Meeting of the Council, giving due notice of such meeting to each Member through the Secretary.

20. The Council may appoint Committees, consisting of such Members of their body, or of the Directors of the Association, as they think fit, to consider and report upon any question that may arise in connection with the aims and objects of the Association. One of such Committees shall be the Standing Committee of Finance, consisting of the Treasurer and at least two Members of the Council. All such Committees shall elect their own Presidents.

21. All Committees shall submit their reports in writing to the Council, through the Secretary.

22. All Proceedings of the Council and of Committees shall be reduced to writing, and shall be signed by the Chairman of the Meeting at which the same are passed. The proceedings of the Ordinary Monthly Meeting shall be brought up for confirmation at the next Ordinary Meeting of the Council.

23. Nothing in the Proceedings of Council Meetings shall be considered invalid, on account of any technical defect in the consitution of the Council or in the election or appointment of any Member thereof.

Ordinary and Special General Meetings of the Association.

24. The Annual Meeting shall be held in the first quarter of each year, and twenty-five Members shall form a quorum.

25. One week's clear notice, specifying the place, day, and hour of such Meeting, and in case of special business, the nature of such business shall be given to the Members of the Association, either by advertisement in the Calcutta papers, by letter, or in any other way as may be prescribed by the Bye-laws, but the non-receipt of such notice by any Member shall not invalidate the proceedings of such meeting.

26. All business at Annual Meetings shall be deemed special, with the exception of the adoption of the Annual Report with Financial Statement, and the declaration of the election of Members of the Council.

27. The Council may, whenever they think necessary, and shall, upon a requisition signed by not less than fifty Members of the Association registered in Calcutta, convene a Special General Meeting, always provided that no matter which had been decided by an appeal to the Association at large shall be re-opened within twelve months at such Special General Meeting.

28. Any such requisition must clearly express the objects of the Special Meeting to be called, and must be delivered to the Secretary fifteen days before the date at which it is desired to hold such Meeting. No business shall be transacted at such Special Meeting, unless at least twenty-five Members, other than Directors and the Requisitionists are present.

29. If a quorum of Members be not present at a Special General Meeting thirty minutes after it is summoned, it shall be adjourned; and if a quorum be not present at the Adjourned Meeting, it shall be dissolved.

30. If a quorum of Members be not present at an Annual General Meeting, twenty minutes after the time appointed for its commencement, it shall stand adjourned to a convenient day in the following week, and if at such Adjourned Meeting a quorum of Members be not present, the Members then present shall form a quorum—such adjournment being notified in the usual way.

31. The President, or, in his absence, one of the Vice-Presidents, shall preside *ex-officio* at every Meeting of the Association, convened in accordance with the above rules, provided always that the President or a Vice-President be not of the number of requisitionists for a Special Meeting, in which case or in the absence of Presidents and Vice-Presidents, the Meeting shall elect its own Chairman.

32. At any General Meeting, a declaration by the Chairman that a resolution has been carried, and an entry to that effect in the Book of Proceedings of the Association, shall be sufficient evidence of the fact.

33. If a poll or ballot is demanded the same shall be taken in such manner as the Chairman directs, and the result of such poll or ballot as declared by the Chairman shall be deemed to be the Resolution of the General Meeting.

34. When any question arises, which, in the opinion of the Council, should be referred to the whole body of Directors of the Association, or which involves the repeal or alteration of, or the addition to, any of the Rules of the Association, the votes shall be taken by voting papers transmitted to them by post or otherwise, by the Secretary to the Association. The question so referred will be decided by the majority of votes received.

FUNDS AND ACCOUNTS OF THE ASSOCIATION.

35. The funds of the Association shall be lodged in the Bank of Bengal in the name of the Council. Any surplus exceeding the sum required for the working expenses shall be invested in Government Securities, or any other stock approved of by the Council. Withdrawals from such funds shall be by cheque signed conjointly by the Treasurer and the President or a Vice-President of the Association.

36. The Accounts of the Association shall be kept by the Treasurer, supervised by the Standing Committee of Finance. A monthly financial statement shall be presented by the Treasurer to the Council.

37. The books o account, together with all deeds, vouchers and documents belonging to the Association, shall be open to inspection by the Directors at the Office of the Association, subject to any reasonable restriction that may be imposed.

38. At the Annual Meeting, the Council shall lay before the Association an Annual Report of working of the Association during past year, a duly audited statement of the income and expenditure for the year ending the previous 31st December, and also an audited balance sheet, containing a summary of the assets and liabilities of the Association made up to the same date.

39. The Accounts of the Association shall be examined and their correctness certified by an Auditor appointed by the Council. No Director or person interested in any pecuniary transaction of the Association shall be the Auditor.

BRANCH ASSOCIATIONS.

40. The Council may affiliate Branch Associations on such terms and conditions as may be deemed advisable in accordance with the Constitution of the Imperial Anglo-Indian Association.

A NATIONAL COUNCIL.

41. A National Council shall be formed, consisting of representatives from all the Branches of this Association and other kindred associations.

VITAL STATISTICS OF CALCUTTA.

Statement of Deaths from Principal Diseases in Calcutta during the week ending 16th July to the 6th August 1898.

Week ending.	Cholera.	Plague.				Small-pox.	Fevers.	Bowel com-plaints.	All other diseases.	Total.	Total population, according to the census of 1891.	Ratio per 1,000 of population per annum.
		Sporadic.		Epidemic.								
	Sporadic.	Seizures.	Deaths.	Seizure	Deaths.							
16th July ...	6	12	12	...	...	1	68	35	168	290	6,81,560	22·2
23rd July ...	6	4	4	...	...	...	79	45	167	301	...	23·0
30th July ...	2	5	4	...	...	...	106	62	165	339	...	25·9
6th Aug. ...	3	10	6	...	...	2	115	40	199	365	...	27·9

Current Medical Literature.

MEDICINE.

Rectal Aspiration.

In the *Gazette Medicale de Paris*, 28th May 1898, Dr. MARCEL BAUDOUIN, has published an extraordinary case—the second on record—of rectal aspiration, or, as he terms it, *petomanie*. He published the first case in the *Semaine Medicale*, 20th April, 1892. The subject was a man who could first aspirate by the anus and then expel air or liquid in large quantities. He was in the habit of giving public exhibitions of his powers. The second case was that of a married woman aged about thirty years, the mother of five children. For a long time she had noticed the facility with which she expelled gas from the large intestine, and thinking that she was affected with some malady, she conided her troubles to a friend who had attended some of the exhibitions just mentioned. The latter assured her that instead of disease she had a fortune—in her abdomen! Accordingly she attended the exhibitions and soon learned enough to embark on this strange profession. Having aspirated a large quantity of air into the intestine she expelled it, producing characteristic sounds of various tones and intensities in imitation of laughing, whistling, the quacking of a duck, &c. These sounds were no doubt due to a power acquired over the anal muscles similar to that over the laryngeal. She introduced into the anus a cannula connected with a tube having a receptacle at the other end into which was placed a lighted cigarette. The cigarette burnt brightly when she aspirated; the smoke was driven out in a cloud when she expelled the air. But her powers appear to have been inferior to those of her model to which even the *Temps* devoted an article. He could imitate the sound of cannon, musketry, thunder, the violin, the trombone, and the human voice; and he could even sing in this extraordinary way! However, there is nothing new under the sun, for in the writings of St. Augustine there is a description of these very powers. How is the aspiration of the air performed? Dr. BAUDOUIN, observed that with closed glottis the man made a strong inspiratory effort, attended by great depression of the abdominal wall and of the supra-clavicular regions. Negative pressure would be thus produced in the abdomen, which would be enlarged by the elevation of the lower ribs and by the upward movement of the diaphragm towards the thorax. Dr. BAUDOUIN, describes the auxiliary muscles of inspiration and probably the diaphragm as assisting in the action. The latter supposition cannot be correct. Contraction of the diaphragm would prevent, not assist, the action. With the inspiratory effort there must be, we should think, relaxation of the sphincter ani. M. BAUDOUIN compares this abnormal power to that possessed by certain individuals over the muscles of the external ear. But a much closer parallel is furnished by cases described by Dr. JOHN WYLLIE in the Edinburgh Hospital Reports. 1895, of neurotic individuals who acquired the power of creating by muscular action negative pressure in the œsophagus, and thus sucked air into the stomach. In *The Lancet*, of 1st August 1896, Dr. G. A. SUTHERLAND, published a remarkable case of this kind. The power of swallowing air possessed by one of BURNUM'S "freaks," who could rapidly pass from the appearance of emaciation to corpulency to which we referred in *The Lancet* of 12th Feby. 1898, may also be mentioned. But if the air was really swallowed and not aspirated the action is of a different kind and is distinguished by Dr. WYLLIE from air sucking.—*Lancet.*

Diabetic Albuminuria and its Treatment.

Two great nosological varieties of diabetic albuminuria are distinguished by Dr. L. GOUBAUD (*La Presse. Medical*:—(1) a functional albuminuria may be met with in four different conditions—(*a*) simple fatigue of the kidney, (*b*) phosphaturia, (*c*) organic disassimilation and (*d*) hypochlorhydric dyspepsia—and if neglected may pass on to (2) lesional albuminuria which corresponds with nephritic lesions such as BRIGHT'S disease, fatty emboli, amyloid degenerations, abscesses, renal tuberculosis, renal hypertrophy, EHRLICH'S kidney, ERSTEIN'S cellular necrosis and especially interstitial and parenchymatous nephritis. Mild albuminuria is almost always functional, grave ones rarely so, and many functional albuminurias develop into nephritis

The treatment of lesional albuminuria is the same as that of BRIGHT'S disease and the diabetic condition is not taken into account, but in grave functional albuminurias the diabetes and albuminuria must be alternately treated, allowing *three* consecutive days to either; where as in the milder functional albuminurias anti-diabetic diet must be rigidly enforced and antipyrin and bicarbonate of sodium administered till the glycosuria diminishes when sulphate of quinine and sodium arseniate should be given. In the phosphatic condition the diet and arsenial portion must be accompanied by pills of Ext. Chinoona and Quininæ sulph. for 10 days when they are replaced by the glycero-phosphates and later by the hypophosphites milk. Bouillon and appropriate diet must restore the salines deficient in albuminuria complicated with organic demineratozation and independently of the medical treatment of the hyperchlorhydria. Albuminuria of dyspeptic origin may be alleviated by giving very small quantities of food at very frequent intervals.

Treatment of Exophthalmic Goitre.

From the days of REGBIC till now, belladonna has been capable of diminishing the secretions of the pharyngeal, salivary and thyroid glands, and the occasional success attending thyroidectomy in GRAVES' disease indicate that in many if not all cases, disturbance of secretion in the thyroid gland lies at the bottom of the clinical phenomena manifested. Ablation, partial or complete, has been sufficiently fatal to demand some means of diminishing the exaggerated secretory activity of the gland. Hence various forms of section of the cervical sympathetic have been advocated and practised, and M. JABOULAY has more than once shewn that paralysis of the fibres of the cervical sympathetic ameliorates the symptoms in exopthalmic goitre.—*Lyon. Méd.*

Nervous Dyspepsia.

Since Carlsbad waters, which give very good results in hyperacidity of inflammatory origin are badly borne in nervous dyspepsia which is sometimes complicated by atony of the stomach and a certain relaxation of its walls and as it is not always easy to separate hyperacidity and acid gastritis from nervous dyspepsia in which hypersecretion may also occur, ROSENHEIM urges that great care must be taken in diagnosing nervous dyspepsia which (1) is not so common as assumed it is (2) a disease by itself of chiefly a sensory neurosis (3) often impairing the motor and secretory functions of the stomach and (4) mostly existing along with other nervous manifestations, in which it is of the first importance to treat the general condition and the exciting cause; but (5) it is wrong to assume that it is a symptom of neurasthenia and (6) the symptomatic treatment of the stomach symptoms is of great value in nervous dyspepsia.—*Brit. Med. Jour.*

SURGERY.

Infective Diseases of the Urinary Passages; Cystitis.

As the result of long investigation, Rovsing of Copenhagen classifies cystitis into the (1) Catarrhal or non-suppurative ammoniacal and (2) the suppurative ammoniacal and (3) suppurative acid forms. In the first the symptoms, such as painful and frequent tenesmus, tenderness over pubes, &c., which are almost entirely local, are caused by non-pyogenic organisms which attack, not the mucous membranes, but the urine which they render alkaline and turbid, and make it deposit a glairy or pus-looking sediment rich in phosphates, urate of ammonia, vesical epithelium, bacteria and occasionally leucocytes and red blood corpuscles. The contact of this ammoniacal urine with the mucous membrane produces symptoms of irritation or inflammation that rapidly subside under boracic acid or any other agent that will neutralise the alkalinity of the urine, and the bacteria may be dispelled by a single injection of 1 or 2 per cent. silver nitrate solution. (2) Complications such as retention, stricture, tumour, stone, which do not themselves cause it, naturally influence the duration and result of suppurative ammoniacial cystitis, which is most usually due to pyogenic infection by instruments passed into the urethra, whence in the majority of instances the pyogenic organisms reach the bladder, though in a few cases they may be derived from the kidney or the renal pelvis; but the symptoms and progress of the cystitis are much influenced by the virulence and multiplication properties of the particular organisms that may be present. The most common of these organisms are:—Bacillus longus ureæ B. Crassus, Coccobacillus and diplococcus ureæ, Proteus hauser, Sarcina alba and flava, staphylococcus albus, aureus and ureæ which may exist separately or be associated with the colon bacillus. In either case complete lavage of the bladder with one per cent. silver nitrate solution and rinsing with sterilised water is the best local treatment which should be accompanied by the exhibition of the usual internal remedies, of which boracic acid is the most valuable, but cases complicated by lesions of the kidney or bladder must be specially treated. (3). The last form is for the most part due to the tubercle bacillus, but may also be caused by other microbes, such as the gonococcus, colon bacillus, streptococcus pyogenes &c. which reaching the bladder from the posterior urethra or by the ureters from the kidney, set up symptoms peculiar to themselves and diagnosis has to be made from prostatitis and posterior urethritis aided by bacteriological examination to determine the microbes concerned. In uncomplicated cases the irrigation with silver nitrate is most useful, when aided by salves and diuretics, but in advanced cases of tubercular cystitis with ulceration of the mucous membrance operative interference is necessary.—*Edin. Med. Jour.*

Chronic Diphtheria.

A few days after recovery from facial erysipelas a girl, aged 19, found an ulcerated patch on the right side of her palate, the glands were enlarged and her temperature 103·1F. while virulent diphtheria bacilli were found in the exudation which extended itself to the posterior pharyngeal wall, the naso-pharynx and right nostril, but that the fever subsided and there was no albuminuria. Four weeks later there was definite paresis of the right half of soft palate and virulent diphtheria bacilli were constantly found in the exudation, which varied its position but diminished in intensity. Dr. Jurasz injected her with 1500 units of diphtheria serum which had no effect on the lesion while topical applications also failed. Lactic acid destroyed the exudation rapidly but it was found again and growing fibro-purulent still contained diphtheria bacilli, though there were no general symptoms. Five months after its onset the exudation disappeared and the infiltration of the mucous membrane began to diminish.—*Centralbl. f. inn. Med.*

Successful Removal of a large Pedunculated Accessory Lobe of the Liver.

A WIDOW, æt 36, who had had 4 children and 3 miscarriages in her *ten* (10) years of married life, consulted Dr. Christopher Martin for a large painful swelling accompained with a nasty feeling of fulness and weight in right upper abdomen as well as back and bouts of colicky pain and bilious vomiting, chills and profuse perspiration. Her bowels and urinary functions were normal. The heart and lungs were healthy and as nothing abnormal could he be detected *per vaginum* the diagnosis was doubtful as to whether the swelling (which was remarkably mobile, in all directions) was a tumor of the (*a*) kidney (*b*) liver or gall bladder (*c*) mesentery or (*d*) ovary. Exploratory incision running over most prominent part of tumor, for five inches downward from right costal margin revealed a smooth green mass depending from a highly vascular pedicle (4 inches wide and 3 inches long) which was attached to the under surface of the anterior border of the liver and was composed of some fibrous tissue enveloping the cystic duct and numerous huge arteries and veins which passed to the under surface of the liver, but there was no continuity of the glandular substance of the liver, the substance of the tumor, which was quite free from inflammatory adhesions to the surrounding parts from its hepatic border down to the pelvic brim where the lower edge of the tumor dipped. The liver proper was somewhat small but perfectly normal in shape and its round suspensory and lateral ligaments had no connection with the tumour, which could be moved freely about the abdomen. But as the gall bladder was firmly attached along the inner half of the anterior surface of the tumour whose peritoneal capsule was very much thickened, it had to be extirpated together with the tumour and a portion of the cystic duct. The abdominal wound, which was not drained, was closed with interrupted silkworm gut sutures and the patient who made an uneventual recovery, left her bed on the 10th day and was discharged from hospital on the 22nd day after the operation, since when (nearly 2 years now) she has kept good health except for a slight tendency to diarrhœa. There was not so much as a trace of any bile ducts in the extirpated tumour which was an avoid body weighing 60 ounces and measuring 9 5 inches at its longest and 6 inches at its shortest diametre.—*Brit. Med. Jour.*

Egyptian Eunuchs made to order.

In Egypt, castration is at present performed on boys from seven to ten years old, by the monks of certain Coptic convents, who reap a good profit by supplying the harems of wealthy Musulmans with some of their mutilated victims. The operation is made in two different ways, and I am sure of these facts. The first operative method consists in cutting off with a razor the sexual parts as near as possible to the public region, carrying away in a single stroke both the penis and the scrotum. Then the patient is buried, almost up to his neck, in some fine and dry sand for the purpose of staying the hemorrhage. After four or five days the sufferer is dug out and the wound is dressed with a few rags sprinkled with oil.

The second operative procedure consists in dividing or rather in crushing the spermatic cords and the penis by means of a strong twine whose extremities the operator pulls apart with all his might. The sufferings of the child are, then, horrible, but hemorrhage is not to be feared so much in this case. The sufferer is, therefore, not buried in sand and his wound is dressed with acacia bark, which is rich in tannin. But in either of the two procedures entailing these barbarous mutilations, two-thirds of the children succumb.—*Med. & Surg. Rep.*

OBSTETRICS AND GYNECOLOGY.

Perforation of the Uterus while Curetting.

At the Berlin Medical Society, M. Dührssen showed a uterus and made the following remarks.

"The uterus that I present to you was extirpated per vaginam; it is as you see the seat of a perforation.

It comes from a woman who suffered from very profuse uterine hæmorrhage after a miscarriage.

Thinking that this was due to retention of portions of the placenta the doctor in attendance curetted the uterus but without success. I repeated the operation but did not succeed in checking the hæmorrhage.

The *os* was then dilated with a "tent" and with the finger I succeeded in removing the placental debris, the hæmorrhage however continued as profusely as before.

The life of the patient was threatened by the excessive loss of blood. So that I resorted to the extirpation of the uterus which was done without difficulty according to Langau's Method. Recovery was rapid.

You observe that the left wall of the uterus is injured, and an examination of what was removed by the curette revealed some of the uterine muscular fibres mixed with placental debris. It is possible that in this case the placenta was in an abnormal position and that the wall of the uterus was thin.

In an obscure case like this I think that it would be better to substitute dilation for curetting.—*La Sem. Med.*

Failure of Midwives in Asepsis.

To prevent grave errors such as imperfect cleanliness of person and surroundings of patient, failure of subjective cleanliness, use of improper lubricants, courting fever by frequent and unnecessary interval examinations, C. S. Bacon cautions midwives against "finding it much easier to put up with their surroundings than to improve them" and advises them to be very particular even to faddism or fussiness of the most minute details of cleanliness but on no account to usurp the province of the physician. It is the midwifes' *duty*, he urges to insist on the expecting mother keeping a piece of white oilcloth 4.5 feet square, throughly boiled and washed, 6 clean sheets together with absolutely clean linen for pads, receivers and the like ready against her confinement. When labour begins remove all the bedclothes, cover the mattress with the oilcloth and a clean sheet only, and make the patient be on it *after* she has had a bath and an enema and put on a clean night dress. Before each interval examination wash the external genitals thoroughly with soap and disinfect the hands carefully by scrubbing first with hot water and soap, and then with 1 per 1000 sublimate or 1 per cent. lysol or 3 per cent carbolic acid solution. Do *not* give a vaginal douche before, during or after labour. When the afterbirth comes away remove sheets and pads, wash patient and oilcloth with antiseptic solution, dry both and over the latter spread a clean sheet for the former to lie on. For napkins use perfectly clean cloths, change napkins, sheets and pads as often as necessary but each time wash the patient with soap and warm water.—*Jour. Amer. Med. Asso.*

Placenta Prævia.

If hæmorrhage be (1) slight (2) moderate or (3) profuse (*a*) *before* labor D. W. H. Wenning recommends (1) rest, expectant treatment, (2) vaginal tampon or (3) tamponing and induction of labor; but if it be moderate in the (*b*) beginning of labor Braxton Hick's tamponing cervix with the cervical pad is useful, till (*c*) labor is well in progress when rupture membranes and deliver (1) by podalic version or (2) by forceps, if hæmorrhage is arrested by the descending hand or (3) by spontaneous expulsion if the pains are good. If the hæmorrhage is excessive at any stage and cannot otherwise be arrested, manual dilatation followed by forcible delivery should be effected.

The tampon is indicated (1) in hæmorrhage towards end of pregnancy or in the beginning of labor when (2) the os is closed or (3) the cervix is moderately dilated; but *not* when (1) dilatation is complete or nearly so nor when (2) it fails to arrest bleeding at any stage of dilatation.

Rupture the membranes when the os is well dilated and (1) spontaneous or artificial delivery will occur or (2) in the absence of "pains" the presenting part will immediately cause pressure and (3) any of these three will control the hæmorrhage; but do not rupture the membranes if (1) the os is undilated and the pains are good or (2) in faulty presentation of the fœtus.

Version by (1) Braxton Hick's method or (2) direct or internal or (3) followed by forcible delivery is indicated when (1) the os will admit two fingers or (2) when it is well dilated or dilatable and hæmorrhage is profuse or (3) in desperate cases; but it is contra-indicated when (1) it cannot be skilfully made with a moderately dilated os or (2) when with a well-dilated os after rupture of the membranes the head immediately engages in the cervix.—*N. Y. Med. Rec.*

External Exploration in Obstetrics.

It is argued by some that irregular and painful uterine contractions, detachment of the placenta and changes in the attitude of the fœtus may be caused by external manipulation of the abdomen in pregnancy, but Leopold in whose clinic over 1000 cases were treated declares he never observed any ill effects in any of his cases and always found it possible to manage normal labor with the sole use of external exploration which readily enables him to determine (1) the direction of the long axis of the infant (2) the position of its back and limbs and (3) what fœtal part occupies the fundus uteri, as as well as to a certain extent (4) the presenting part and (5) to what extent it engaged in the pelvis. He urges that it is the obstetrician's duty to refrain as far as possible from vaginal examination in normal cases; because (1) internal examination is useless when external exploration gives all the needful information and (2) a woman during labor may readily be infected by her medical attendant (3) whose hands should always be considered septic since (4) they cannot be made germ proof by rapid disinfection.—*Med. Chron.*

Hysterectomy for Acute Puerperal Septic Metritis.

Meneberg reports a successful case. Symptoms began on the sixth day after confinement; three days after curetting was done, and was followed by improvement for twenty-four hours. On the twelfth day the patient was taken to hospital, apathetic, delirious, with temperature 103, and pulse 130. Intra-uterine irrigations brought away no *debris*. On the evening of the thirteenth day she seemed sinking, and abdominal total hysterectomy was done. On cutting open the uterus the whole interior above the cervical canal was covered with a dark, tenacious, slimy discharge, emitting a very foul odour. Attached to the left horn was a piece of placenta 2 cm. by 4 cm. and firmly adherent. The patient left hospital in six weeks. The author explains the lateness of the onset in these cases as follows: A piece of retained placenta disintegrates, and the *debris* are at first carried away with the lochia. After a week the cervical canal becomes moderately closed, and at the same time the heavy fundus sinks forward so that escape of the discharges is interfered with, resulting in absorption and sepsis. This may occur without foetor of the lochia. The proper treatment is immediate curettage, followed by special precautions to allow of subsequent drainage. If this fail, as shown by rapid weak pulse and loss of ground by the patient, hysterectomy should be done. In a footnote to the paper the author reports a second and later case, where the same treatment was successfully carried out. He gives references to eight other cases reported.—*B.M.J.*

PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

Abnormal Ureters.

JOHN H. MORGAN Esq. M.A., F.R.C.S.I. thinks that aberrations from the normal type of ureters are of special interest with regard to their causative relations to congenital hydronephrosis, as out of 52 such cases recorded by Sir W. ROBERTS 20 had congenital malformations.—4 had imperforate ureters, in 3 the ureter entered the pelvis of the kidney too obliquely, in 2 a supernumery renal artery crossed and compressed the ureter near its origin, in 1 (Dr. HARE'S patient who lived to the age of 38) both ureters were coiled on themselves near this origin and adhered to the lower part of the dilated pelvis, 4 lived for ages varying from 5½ to 20 years and the remainder died very young. EWART (*Lancet*) tells of a case where *each* kidney had two previous ureters arising from distinct pelvis and terminating independently in the bladder, and in the museum of the Charing-cross Hospital is a case where the second ureter arising from the pelvis a good deal higer than the other one which begins at the usual situation, runs nearly a straight course downwards to a point 5 inches above the bladder where it joins the proper duct at right angles, and in the great Ormond Street Childrens' Hospital were 5 more cases of double ureter; but in no case were they the source of disease.

In a case of cystic kidney removed by Dr. DAY an impervious fibrous cord terminating in the bladder represented the ureter and caused dilatation of the kidney. In another case born with renal cystitis (*Trans. Path. Soc. of Lond.*) the right ureter was doubled to within 0·5 inch of its lower end, a valvular fold of mulcus membrane marked the left one, the anus was imperforate and the bowel transposed, and in a third case the ureter was short narrow, patent, and its orifice, no larger than a pin's head, placed inferiorly.

SHATTOCK (*Trans. Lond Path. Soc.*) looks upon double and treble ureter as reversion to a lower type as in the ampibiia which have as many ureters as there are segments of the kidney, of which that portion connected with the superior of the ureters represents a persistent segment of the mesonephros whose duct has remained functional and supplementary to the permanent kidney with which it retains its primitive continuity.—*Trans. Lond. Med. Soc.*

Digestion of Children.

IN his Report on the Pathology of Infantile marasmus Dr. FENWICK notes:—(1). The acidity of the gastric contents steadily increasing during the progress of digestion attains its maximum of 0·135 per cent.—calculated as hydrochloric acid—within 90 minutes from the commencement of the meal; but (2) the quantity of the mineral acid secreted during digestion varies from day to day and from meal to meal in the same child even though the same quantity and quality of food be taken at each meal, and (3) so long as the gastric secretion contains a trace of hydrochloric acid pepsine and rennet are invariably present, whereas (4) the appearance of lactic and other secondary acids which are *not* normal products of digestion, denote fermentation and (5) the total acidity of the gastric contents in infants fed on farinaceous food, invariably diminishes to below the normal

(6). Free hydrochloric acid is never found in the stomach till 90 minutes from the commencement of a meal, though (7) it is always present towards the latter end of digestion.

(8). In breast-fed children the milk curdles in 8 to 15 minutes after it reaches the stomach and (9) gastric digestion is usually completed in 90 minutes when the stomach is void of food; but (10) in children fed upon cow's milk, the total acidity exceeds that of breast-fed babes by 0·18 to 0·195 per cent and (11) the stomach becomes empty in 135 minutes, when digestion ends.—*Brit. Med. Jour.*

Biomechanics of the Circulation.

TRYING the advisability of a "Multiple pulse-feeling" in preference to "taking the pulse" at one vessel only, Professor BENEDICT of Vienna thinks that always working under normal circumstances, with a portion only of the power it is capable of exerting the heart always has at hand surplus energy for an emergency such as valvular insufficiency, when it compels the vascular system to help it by local dilatations which relieve the central organ, until by a reflex action through the nervous system a compensatory hypertrophy is established to meet the strain of the increased work. He notes that the heart sounds are due neither to valvular tension nor to muscular contraction but to vibration in the blood in the ventricular cavity during the period between the closure of the mitral cusps and the opening of the semilunar valves, and in the attractions and repulsions of cellular action throughout the body he sees the generation and utilisation of a force, stored by the nervous system, for the regulation of the body locally and generally by compensatory dilatations, that so relieve the contracted blood vessels that sinapism is superior to ice in cerebral congestion.—*Le. Prog. Med.*

Tuberculosis of the Kidney.

CHRONIC localised tuberculosis or strumous disease of the kidney is by no means frequent in children but the acute miliary form, which is only a local manifestation of a general disease is in children, very commonly associated with tuberculous or meningitis. When the disease originates, in the urinary organs the infection may be conveyed by the blood, or it may ascend from the bladder by the ureters or lymphatics or it may extend from the surroundings of the kidney, whose invasion is seldom marked by any distinct symptoms and the kidney affection may further be disguised by the more evident signs of disease in the lungs or in the brain. Such conditions do not admit of surgical interference Carried along by the blood for elimination by the glomeruli, the bacilli infect the apices of the papillæ, the calyces or the pelvis of the kidney which become the camping ground for miliary nodules, which coalesce to form caseous mases that break down to form irregular cavities in the periphery or lay bare ulcerating surfaces in the pelvis. The infection becoming more chronic, more and more renal substance becomes involved, destroying the secrous structure, ulcerating the mucous membrane occluding the lumen and thickening the ureter, which last may remain pervious to wash away the debris to involve the parts below and let the disease ascend to the opposite kidney; but if the ureter becomes blocket tuberculous pyonephrosis may result, converting the kidney into a large abscess cavity or a number of cavities filled with caseous debris or the whole organ may become a shrunken putty-like mass.

In the earlier stages nephrotomy may be advantageously employed and later on if patients' strength improves or lardaceous disease threatens nephrectomy may successfully be resorted to with a not, very high mortality if the disease is unilateral; but when the urine becomes constantly purulent and vesical irritation is a marked characteristic the disease has either implicated both kidneys or so far involved other portions of the tract that permanent cure is impossible and only palliative measures may relieve the patient temporarily. —*Lancet.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Evils of Excessive meat eating.

As soon as man subserves his stomach that organ demands an excess of meat followed by an excess of stimulants all of which combine to force a lot of extra work on the system, leading to a long train of evils which may be overcome by adopting a strictly vegetable diet, and the *New York Medical Times* thinks that the great increase in the cancer mortality in England is in a *very large* part due to the excessive ingestion of meat by persons whose cellular metabolism being defective, the extra work thrown on it stimulates the system to such an extent as to create such excessive and disorderly cellular proliferation as will eventuate in cancer.

Mrs. Ernest Hart says that urbanity is the rule in less-meat-eating France and an exquisite politeness prevails in fish and rice eating Japan where she never heard rude or angry words spoken by any but Englishmen. She is very strongly of opinion that the proverbial ill temper of the English is caused in a great measure by too abundant meat dietary combined with a sedentary life and the half oxidised products of albumen from muriates and muric acid circulate in the blood to produce physical, mental and moral disturbances such as dyspepsia, gastric disorders, cancers, irritability, aggressiveness, selfishness and a frequent desire to become quarrelsome.—*N. Y. Med. Times.*

Decision Favorable to a Contagious Disease Hospital.

In a suit to prevent the maintenance of a small-pox hospital on the ground that it is a nuisance to the neighbouring residents of the small Yorkshire town in which it is situated, Justice Romer sitting as an equity judge, lately heard considerable interesting medical testimony in regard to the manner in which small-pox may be conveyed from the patients in such an institution. The complainant's witnesses were generally of the opinion that the diseases could be transmitted through the air to some extent, outside the precincts of the hospital. One witness, however, the government health officer at Hastings, limited the likelihood of outsiders being reached by small-pox to such persons as came within 600 feet. This theory of aerial convection, as it is called, was rejected by the medical men testifying in defense of that Yorkshire hospital, which expressed great confidence that whenever all the facts of a case of small-pox could be ascertained it would appear that the malady was due either to direct or mediate contagion, that is, contact with the patient himself or with a person who had seen the patient. Justice Romer refused to adjudge the hospital to be a nuisance, but did not expressly determine whether the theory of aerial convection is or is not correct.—*J. A. M. A.*

Disinfection of Excreta.

Drs. C. A. Hill and J. H. Abram have made a series of experiments to ascertain the value of various well-known substances used for this purpose. Typhoid stool was made use of, and was exposed to the action of the agent for half an hour in each case. The results of their experiments are summed up as follows :—

1. It is absolutely necessary to mix the fæces thoroughly with the disinfectant.

2. The mixture should stand at least half an hour.

3. Carbolic acid (1 in 20), crude carbolic acid (1 in 40), formol (1 in 40), creolin (1 in 40), chinosol (1 in 600), and corrosive sublimate (1 in 500), are all effective, but chinosol seems the most convenient.

The reasons for coming to this conclusion are that corrosive sublimate is a scheduled poison, acts upon the metawork of the drainage system, and, moreover, gives a red coloration with stercobilin. This latter point is of importance, inasmuch as it may mask the presence of blood in a typhoid stool; again, albumen is coagulated by mercuric chloride, and thereby protects organisms enclosed in the centre of the coagulum. Crude carbolic acid is cheap and efficient and but does not mix well with the fæces, it stains linen, and is poisonous. Formol and creolin are good, but are rather costly The remaining substance, chinosol, is, in their opinion, the best. It is reliable, an excellent deodorant, and mixes well with the fæces. It is dearer than crude carbolic, but its cost is more than counterbalanced by its portability. It is put on the market in tablet form The tablets are readily soluble, and may be obtained in such strength that one of them in a pint of water makes a solution of effective strength.—*Brit. Med. Jour.*

Extraordinary Deaths.

In Birmingham, on 11th May, an inquest was held at Dudley on the body of a woman aged sixty-five years, who met with her death in an exceptional manner. After kneeling at the grave of her brother in the cemetary she made an effort to rise, but in doing so, fell into the vault over which she was kneeling and disappeared from view; when taken out she was dead. Her weight was 16 st. 12 lb, the vault was from 8 to 9 ft. deep. On 4th May, an inquest was held on the body of a woman, aged thirty-three years, the subject of delusions. The deceased was found on the floor of the house dead, her clothing saturated with water, and a pool of water around. There was nothing found to account for her condition. The canal was a quarter of a mile away. The medical man who made the post-mortem examination, said, that he come to the conclusion that the deceased had died from asphyxia caused by water—practically drowning. He added that according to an American authority a case was recorded where a person who had been immersed in water had recovered sufficiently to walk a considerable distance and had then died. From the condition of the deceased's body and clothing he thought that she had been completely immersed in water. The jury found that death was due to drowning but that there was no evidence to show how the drowning was caused—a conclusion which must be viewed as exceptional in the history of deaths from drowning.—*Lancet.*

Simple Test for the Purity of Water.

The *Massachusetts Medical Journal* for May quotes from *Health*, for persons who cannot command chemical analysis, the following simple tests for the purity of water :

Fill a bottle made of colorless glass with the water; look through the water at some black object; the water should then appear perfectly colorless and free from suspended matter. A muddy or turbid appearance would indicate the presence of soluble organic matter, or of soluble matter in suspension. It should be "clear as crystal."

Empty out some of the water, leaving the bottle half full; cork up the bottle and place it for a few hours in a warm place; shake up the water, remove the cork, and critically smell the air contained in the bottle. If it has any smell, and especially if the odor is in the least repulsive, the water should be rejected for domestic use. By heating the water to boiling, an odor is sometimes evolved that otherwise would not appear.

Pure water should be tasteless and remain so after being warmed. It should also be odorless; but, since the delicacy of smell and taste varies greatly, sanitarians attach special importance to Heisch's test for sewage contamination or the presence of putrescible organic matter. A clean pint bottle is filled three fourths full of the water to be tested, and in the water is dissolved a teaspoonful of the purest sugar—loaf or granulated sugar will answer; the bottle is then corked and kept in a warm place for two days. If in from twenty-four to forty-eight hours the water becomes cloudy or muddy, it is unfit for domestic use. If it remains perfectly clear it is probably safe to use.

THERAPEUTICS AND PHARMACOLOGY.

Oxygen in Opium Poisoning.

This gas, which plays so important a part in the daily action of life and has been successfully employed in coal gas asphyxia and dyspnœa and cardiac failure from many acute diseases, was recently used by Dr. W. J. C. Merry in a case where a man had swallowed 2 ounces of chlorodyne (containing 8 grains of morphia, corresponding to nearly 100 grains of Smyrna opium) some three hours before the police discovered him, lying insensible on the Albert Embankment and brought him St. Thomas's Hospital. He was cyanosed, breathing stertorously, corneal reflex abolished, pupils contracted and inactive, pulse rapid and weak, limbs flaccid and enforced exertion being out of the question the interrupted current, flagellation, cold affusion and strong ammonia to the nostrils were successively tried with rather indifferent response for 3 hours, but the moment the battery was discontinued he relapsed into profound coma and his condition becoming more and more serious (his respiration fell to 8 per minute, face became intensely blue and lips and fingers livid) he was made to inhale pure undiluted oxygen gas for 20 minutes, when respiration became fuller, easier and quieter while his face regained a nearly normal color and his pulse picking up beat regularly 100 to the minute. A second inhalation of 20 minutes, given an hour later restored consciousness and two more 20-minute inhalation at 45 minute intervals completely revived the patient. That the oxygen was the turning point in the case is beyond doubt but without further experience of its use in similar cases it would be difficult to understand its exact mode of action.—*Lancet.*

Hydrocyanic acid as a Antidote to Chloroform.

The idea of using prussic acid as an antidote to chloroform first suggested itself to Frederick Hobday Eyre, F.R.C.V.S., some two years back, since when he made a number of experiments whose results were in the highest degree satisfactory, so much so that when chloroforming animals, the, only antidotes he keeps ready to hand are hydrocyanic acid and liquor ammoniæ fortior. As soon as breathing ceases or becomes dangerous, artificial respiration is resorted to; the tongue being continuously pulled well forward in a jerky manner and a *full* medicinal dose of Scheele's acid which is a powerful respiratory stimulant, placed as rapidly as possible at the back of the throat. When respiration has re-commenced the ammonia vapor is applied cautiously to the nostrils and in the majority of cases a safe termination ensues. Scheele's acid is more rapid and powerful than the British Pharmacopœia and acts best when given undiluted.—*Lancet.*

Kryofin in Influenza.

Bresler who tried this methylglycollic acid compound of paraphenetedin in 16 cases of influenza, found that this drug was more speedily and completely acted upon by the both the pancreatic and gastric juice than was phenacetin, and that if 75 grains of kryofin were given just before a rise of temperature was expected, the pyrexia was a rule forestalled as this drug which improves the subjective condition considerably and often induces diaphoresis, had the peculiarity of preventing a rise of temperature rather than of bringing it down, and was certainly preferable to phenacetin or antipyrin as an antipyretic and anti-influensal remedy.—*Therap. Monats.*

Magnesium Sulphate in Tropical Dysentery.

V. Gandoge Thorpe while in charge of H. M's gunboat *Peacock* then lying in the Yangtse River, China, gave ℥j. of a saturated solution of Epsom salts and Acid sulph. dil mx. every hour, to a severe case of dysentery with such striking and immediate effects and no complications that he declares, that in any future case of dysentery he may have to deal with he intends giving Magnesium Sulphate in preference to Ipecacuanha. Dr. Thomas R. Wigglesworth, who keeps his patient on milk diet and gives him "acid sulph. Dil mxv. Sat. sol. magn. sulph. ℥iv." every two hours endorses these findings with "I feel certain, if the magnesium sulphate treatment were carried out that in the majority of cases tropical dysentery would be shorn of half its terrors."—*British Med Jour.*

Gutaud's Amenorrhœa Pills.

R	Strychnine sulphate	...	½ grain;
	Iron peptonate, Manganese lactate, Scammony,	each ...	20 grains.

Divide into forty pills. Two to four pills to be taken every night on going to bed.—*N. Y. Med. Jour.*

Spasmodic Cough.

Potassium bromid ...	...	1 dram.
Wine of ipecac ...	...	1½ fluidrams.
Tincture of belladonna	...	1½ fluidrams.
Sirup of tolu ...	...	6 fluidrams.
Water	...	4 fluidounces.

Dose: One to two teaspoonfuls every three hours.—*Med. Review of Reviews.*

Irritative Dyspepsia.

Bismuth subnitrate	...	2 drams.
Magnesium carbonate	...	2 drams.
Dilute hydrocyanic acid	...	35 minims.
Tincture of hyoscyamus	...	6 fluidrams.
Mucilage of acacia	...	1½ fluidounces.
Peppermint-water ...	...	6 fluidounces.

Dose.—One tablespoonful in water after meals.—*Med. Review of Reviews.*

Discoloured Teeth.

The following is a dentifrice recommended in *L'Odontologie* for the use of persons the enamel of whose teeth has become discoloured :—

R	Chlorate of Potash ...	...	gr. iss.
	Powdered Boracic Acid	...	gr. iij.
	Carb. of Magnesia (heavy)	...	gr. iij.
	Precipitated Chalk ...	...	gr. iij.
	Ess. of Peppermint ...	...	gtt. v.

Pract.

Vomiting of Sea-sickness.

Menthol ...	...	1.5 grains.
Cocain hydrochlorate	...	3 grains.
Sirup ...	...	1 fluidounce.
Alcohol ...	...	2 fluidounces.

Dose.—One teaspoonful every half hour.—*Bulletin Med.*

Indigestion, Heartburn, and Nausea Powder.

This is composed as follows :—

Mag. calc. levis	...	...	℥j.
P. columbæ ...	...	...	℥ss.
P. zingib. ...	...	...	3ij.
P. glycyrrh. decort.	...	...	℥j.

M.

One teaspoonful for a dose.

Correspondence.

THE C. D. ACTS IN INDIA.

To the Editor, "Indian Medical Record."

Sir,—In your issue of 1st May, "A Medical Man" is very severe on the "ridiculous" Memorial of 79 Medical Women, concerning measures for dealing with venereal disease. As one of the 79, will you kindly allow me space for a reply?

The portion of the memorial which specially arouses the wrath of your correspondent, is that which gives reasons why it is, in our opinion, "impossible to class venereal diseases, with other infectious and contagious diseases, for purposes either of prophylaxis, segregation or treatment." We say "Other contagious diseases are, as a rule, easily recognized, rarely or with difficulty concealed, treatment is voluntarily sought . . . . . These things are not true in the same degree of venereal disease." As your correspondent seems to think that these differences exist only in our ignorant imaginations, I should like to quote the following from Lord Lister's speech in the House of Lords on the proposed Cantonment Regulations (17th May, 1897).

"Now with regard to such diseases as small-pox, this regulation is, of course, perfectly satisfactory . . . But with venereal disease the case is totally different. In the early stages of the complaint, in which it is of the most essential consequence that it should be recognized—for efficient treatment depends upon early recognition—there is no general effect whatsoever produced upon the system. The person appears to all ordinary examinations perfectly healthy, and it is only by special examination, which it is enacted shall not be compulsory that evidence of the disease can be obtained. How can any notice be given to the medical man that a person has such a disease? Who is to give the notice? In truth it is the fact of prostitution, not evidence of the presence of venereal disease, on which the authorities must proceed.'

Under the present regulations, it is open to a medical officer to take the fact of prostitution as "*prima facie* evidence" of the existence of disease and to proceed accordingly. But since prostitutes can only constitute a proportion and usually a small minority of the total number of sufferers from venereal disease in any community,—it is evident that, as regards the initial step of detection, these diseases are on a very different footing from those others with which it is attempted to class them.

Putting aside for the moment this very serious difficulty, it is clear that if we are to deal with syphilis on the same principles as other communicable diseases, we must endeavour to secure:—

1. That every case, whether in man, woman, or child shall be compulsorily notified.

2. That every case shall be efficiently isolated (or segregated) throughout the period during which the disease is transmissible *i.e.*, for two years at least [I take two years because that is the *minimum* interval before marriage is allowed. Even if we are not prepared to subscribe to the modern view that during the latent periods of the secondary stage, the blood and some of the secretion contain and may transmit the syphilitic virus, it is certain that the active manifestations are capable of communicating the disease, and may do so, before they become sufficiently troublesome to call for treatment—or even in the interval between two examinations.]

A serious objection to such proposals would be that they would throw much practice into the hands of quacks who could be trusted not to notify; but if concealment of disease were visited with sufficiently heavy penalties it is possible that in a few years, cases of syphilis would be less numerous. But where, is an administration bold enough to enact and impartially enforce such measures, and strong enough to resist the opposition of tax-payers on the one hand, and of those whose liberty would be interfered with, on the other?

In the meantime, I maintain that measures devised for dealing with small-pox and cholera are inapplicable to syphilis. The pretence of similar treatment can only mean that *a proportion of the cases are segregated during a part of their illness*; and if this pretence leads the public to suppose that they may neglect the ordinary means of safety, it will inevitably defeat its own end.

A Medical Man's remarks about "the trade of prostitution" indicate that what he approves and what he hopes the Cantonment Rules will lead to, is a revival of the system known in England as the contagious Diseases Acts, and on the continent of Europe as "Reglementation" and he assumes as do most of those who have not studied this hateful subject, that that system *does* check venereal diseases if it cannot stamp them out. He quotes Dr. Commange's statement that syphilis is rarely engendered by regulated, and nearly always by clandestine prostitution. It is interesting to put this statement beside the testimony of M. Lecour, for many years head of the Police des Moeurs in Paris; on one page he says "Prostitution is increasing and becoming more dangerous to the public health,"—now the next "The administration has redoubled its activity . . . . and it has finally succeeded in maintaining the registered public women in a satisfactory sanitory condition. The explanation is furnished by his figures, which show that in spite of (or perhaps rather in consequence of) his efforts, the clandestine prostitutes are seven times as numerous as the registered. (Lecour. La Prostitution a Paris et a Londres, pp. 254, 255, 120, and 127. This book was published in 1874, but there is no reason to think the state of things in Paris is any better to-day.)

When a Medical Man deals with our remarks on the treatment of soldiers, he becomes too indignant to be civil,—but he does not enlighten our ignorance. The question is simply this: when a soldier has shown symptoms of secondary syphilis, is he subjected to systematic mercurial treatment for two or three years? If not, can he be said to be "properly treated," according to the general consensus of medical opinion? We did not attempt to question the excellence of the soldier's treatment while in hospital. We only say that if he cannot have "out-patient" treatment between-while it is to his disadvantage and to that of the State, and it is no wonder that the disease sometimes assumes a virulent type.

In this letter I have confined myself strictly to the medical aspect of the subject. It is only on that aspect that your correspondent attempts to argue. The moral question he treats with cheap sneers, which need no reply.

Yours &c., X. Y. Z.

:o:

MEDICAL EDUCATION IN THE PUNJAB.

To the Editor, "Indian Medical Record"

Sir,—I send you herewith per book post the Punjab University M. B. and L. M. S. Examination papers for 1898, for publication in the *Record*. The students' corner in the columns of the *Record* which was talked of sometime ago, have been ever since neglected and none have come forward to contribute anything intended to be especially useful for the students preparing for the University examinations.

As far as my experience of the Lahore Medical College goes, the *Record* is the only medical paper subscribed for by the students and largely read by them, and if the students of the other Indian Colleges have an equal predilection for it, it shows that it is read by not a small minority of them. If a page or two be devoted to their cause and specialised for their use they will feel still more attached to their beloved journal.

Even when I was a student, I occasionally wrote clinical reports for the *Record* which were approved and published, and now as my student career is at an end, I hope to try and do my duty towards these columns.

Every page of the *Record* has something new to tell or teach any student of medicine, but to fulfil the requirements of the candidates for Indian Universities, a page or two should be set apart in which they or their teachers may be able to discuss University and other important questions, connected with every branch of the medical service.

The following is the list of the successful candidates in the M. B. and L. M. S. of the Punjab University Examinations which were held on 20th June last, the results were out on the 30th ultimo.

Second M. B.	**Total marks. 1350.**
Amrik Singh	... 807
Baij Nath Veyas ...	... 677
Jai Chandra	... 808
L. M. S.	
Gurdial Singh	... 791
Asghar Ali	... 730
Gopal Dass	... 749
Dani Chand	... 680
Ram Chad	... 748
Har Parshad	... 698
Kidar Nath	. 691
Shanker Dass Khanna ...	... 691
Kanonji Lal	... 724
Balbhadra Singh	... 767
Chaman Lal	... 683
Surrendra Nath Banerji ...	... 739
Vinjak Ludashive ...	... 726

The candidates for the L. M. S. were 34 in all, for the M. B. only 3, of whom all passed.

Yours &c., Amrik Singh, M.B,
Assistant Surgeon, Nabha State.

Nabha State, *4th August 1898.*

:o:

THE ADMINISTRATION OF THE INDIAN MEDICAL DEPARTMENT BY CIVIL SERVICE SECRETARIATS.

To the Editor, "Indian Medical Record."

Sir,—While, for the honor of the Medical Services of India and of the Medical profession, I would fain see the supremest power in all matters of medical administration in the hands of medical men, I cannot refrain from wishing most fervently as things stand at present, with the affairs of the medical services and of the medical profession in this country so absolutely at the mercy of the civil secretariats, that the useless expense of paying huge salaries to figure-heads of medical administrators, is a criminal waste of money and that such appointments be abolished. Why should we pay Rs. 2,500 monthly to Inspector-Generals of Civil Hospitals, when they do almost next to nothing for such an honorarium, when the secretary to the Government on the "Medical and Municipal" departments orders everything in medical affairs according to his whims and caprices, and the I. G. can no way, good, bad or indifferent in all that is done.

That man of ripened professional experience and with a dignified position should submit to being treated as merely nominal heads, as automatons, as figure-heads, unworthy of the smallest consideration, as beneath consultation, beats all my conceptions of manliness, and therefore I beg to propose that all Inspector-Generals of Civil Hospitals and even the Director General of the Indian Medical Service (what?) another showman), be entirely and for ever abolished, and that the civil servants who now do all the work of medical administration in India, even to the writing of scientific theses on plague and other diseases, be invested with public power to openly, instead of secretly, administer the medical services and the medical needs of the country. Let us try Bengal as an experiment, and to bolster up this proposition, I would ask some one else who knows a thing or two as I do, to just publish in the *Record* a statement of the daily routine of work done by the Inspector-General of Civil Hospitals of Bengal. This done and my proposition will be approved of on all sides.

Yours &c., Economy.

:o:

SCANDAL MONGERS IN THE PROFESSION.

To the Editor, "Indian Medical Record."

Sir,—I was very pleased to read your scathing criticism on the unprofessional conduct of a Surgeon of the Indian Medical Service who slandered a non-official brother. Your sermon on scandal-mongering was to the point, but besides "words" used for the purpose of injuring the reputation and position of non-officials, it is well to recognise the fact that there are some official doctors in our public hospitals, who while they do not dare to *speak* ill of their non-official brethren, and thus lay themselves open to legal action, they are guilty of equally as unprofessional and far more insidiously mean and cruel conduct, when knowing the prestige and status they hold in a public hospital, they sneer and jeer and shrug their shoulders, when the name of a non-official physician is mentioned as the man in charge of the patient before he or she went to hospital. Dishonorable to the core as two or three such heartless members of the Indian Medical Service in our public hospitals are, it is only right and honest to say, that no such reflection can be cast on the majority of the official doctors, who besides, honorably and generously recognising the difficulties of the non-official practitioner, and treating him as a professional brother, they support him with a recommendation and a good word. Such men would not dare to stab a man in the dark, nor strike him "under the belt."

Yours &c, S. O. M.

Calcutta, *12th August 1898.*

:o:

ANOMALOUS MEDICAL PENSIONS.

To the Editor, "Indian Medical Record"

Sir,—Some short time ago the *Pioneer* animadverted on an "Anomalous state of pensions," now it so happens this "Anomaly" only concerned the Indian Subordinate Medical Department. Yet in vain have I watched for any agitation to keep the "ball rolling once set in motion" as alluded to above. Your championship of the Anglo-Indian is very up hill work if none of the class take up the matter so successfully led for them. *The Statesman* is recorded to have said "This new Indian Congress movement will have to reckoned with." Is the Anglo-Indian sunk to such apathy, that the Bengali Baboo can beat him at vigorous, united, and continued action, commonly styled agitation.

Things look bad indeed if such is the case. How many Anglo-Indians on your books have enrolled for the Indian Medical Association, and how many more have neglected to send in their subscriptions? How many have never joined? It is this apathetic happy-go-lucky style that prevents any interest being taken for a substantial reason, as for instance the "anomaly" herein written of in no way is detrimental to the British born "empirics" imported articles, but to the Domiciled only.

Yours &c., Isaac Oliver Matthews,
Army Pensioner, late 55th Regiment of Foot.

WHO ARE THE WARRANT OFFICERS AND MEN OF AN INDIAN ARMY MEDICAL CORPS?

To the Editor, "Indian Medical Record."

Sir,—I was pleased to read in the Record a short while ago that the Government of India had under consideration the petition submitted by the I. M. Association on behalf of military assistant surgeons. As the matter has, evidently, not yet been disposed of, and further as I am given to understand that a bigger subject is also before Government, consequent on the new Warrant re Royal Army Medical Corps, would it not be advisable for the Association to again approach Government at this important juncture? In addition to what has already been advocated by the Association as regards the pays, pensions, and prospects of this hard-worked class of public servants I would, to keep up with the times, beg to suggest the following for favourable consideration:—

(1). That the designation "Indian Subordinate Medical Department" be changed to Indian Military Medical Establishment or Department, synchronous with Military Works Department, Army Commissariat and Ordnance Departments, &c., a designation which would also serve to distinguish it from the Civil Medical Department.

(2). That the members of the department be designated, Deputy Commissaries, Assistant Commissaries, Deputy Assistant Commissaries, Conductor, and sub-Conductors.

At present they are supposed to hold a sort of imaginary relative rank with the members of the sister services which is considered unsatisfactory It is moreover obvious that if the term Surgeon is to be abolished in the Commissioned Medical Services, the designation Assistant Surgeon becomes meaningless and must be expunged.

Yours &c., P.

:o:

THE PRESIDENCY GENERAL HOSPITAL.

To the Editor, "Indian Medical Record."

Sir,—May I ask whether the Presidency General Hospital of Calcutta, which was roundly condemned by the public during the incumbency of Surgeon-Colonel Crombie and the staff then employed under him, is to be reorganized and placed under new management? Surely if it failed to give public satisfaction under Dr. Crombie, it can hardly be predicted to render efficient service when placed in charge of Dr. Crombie's second in command!

If the management was faulty, and it admittedly was very faulty, there should be a clean sweep of the whole staff. To do otherwise is to act imprudently, blindly and blameably How can a pupil do other than follow in the footsteps of his master. If Crombie failed, and fail he did, with the management of the Presidency General Hospital, how can his assistant succeed? He will work on the old grooves and the results will be as discouraging and as blameworthy as before.

Yours &c., W. C.

:o:

WANTED TREATMENT AND OPINION.

To the Editor, "Indian Medical Record."

Sir,—What is the best treatment to adopt in cases of styes. These are very painful when they appear and any treatment both external (as a lotion) and internal which has been found effective will oblige the writer. Wanted a treatment so as to prevent a recurrence of these boils.

What is the best treatment to follow in cases of acute coryza. I have never up to now found any thing which can really cure the symptoms of a severe cold. The inhalation of oil of eucalyptus is the treatment recommended but I do not place implicit faith in this.

Yours &c., Medicus.

Bombay, *19th July 1898.*

ASSISTANT SURGEON MONTGOMERY'S CASE.

To the Editor, "Indian Medical Record."

Sir,—I was both surprised and annoyed at seeing a letter in the *Indian Medical Record*, of 16th July 1898, under the heading "Fair play for the I.S.M.D.," and signed "Fair Play." I beg you to insert in your most valued and esteemed paper, the *Indian Medical Record*, my denial of its authorship and my regret at its appearance. I am in total ignorance of its authorship.

Yours &c., Pierre Montgomery.

Fatehgarh, *30th July 1898.*

Government Medical Gazettes.

GOVERNMENT OF INDIA.

Surgn-Col. D. O'C. Rave, M D., I.M S (Bengal), Inspr.-Genl of Civil Hospls, Punjab, is granted furlough out of India on private affairs, for eight months, from 10th Aug. 1898.

The services of Surgn.-Major E. F. H. Dobson, M.B., I.M.S (Bengal), are replaced temply. at the disposal of the Mily. Dept.

The services of Surgn.-Lieut. H. J Walton, M B., F.R.C.S., I M.S. (Bengal), are replaced at the disposal of the Mily. Dept., from 5th July 1898.

The services of Surgn.-Capt A G Hendley, I.M.S., (Bengal) are replaced at the disposal of the Chief Commr., C.P.

BENGAL GOVERNMENT.

Babu Ambica Charan Dutta, a passed student of the Med. Coll., Calcutta, is admitted into the service of Govt., as an Asst. Surgn., from 23rd June 1898.

Brig.-Surgn.-Lt.-Col. C H. Joubert, Professor of Midwifery, Med Coll. Calcutta, and Obstetric Physician, Eden Hosp., is allowed privilege leave for one month and twenty-two days.

Surgn.-Capt. C R Stevens, Resident Med. Officer, Med. Coll. Hosp., Calcutta, to act as Prof. of Midwifery, Med. Coll. Calcutta, and Obst. Physician, Eden Hosp., during the absence of Brig.-Surgn.-Lt.-Col. C H. Joubert.

Brig.-Surgn.-Col. W. H. Gregg, Civil Surgn. of Burdwan, is granted furlough out of India for twelve months.

Surgn.-Major A. B W. Sedgefield has been granted a further extension of furlough for two months.

Asst. Surgn P Victor, to be an Inspg. Officer for the purpose of carrying out the provisions of the Epidemic Diseases Act, 1897, at Chakradharpur on the B. N. Ry.

Surgn.-Lt.-Col. E. Bovill, Offg. Civil Surgn. of Howrah, is allowed privilege leave for three months, from 29th July 1898.

Surgn.-Capt. C. R. M. Green to act as Civil Surgn. of Howrah.

Asst Surgn. Kali Mohun Sen, to do supery. duty at the Med. Coll Hosp., Calcutta, from 28th July 1898.

Asst. Surgn. Mohendra Nath Dutt, a supery. at the Med. Coll. Hosp., to have tempy. charge of the Muzaffarpur dispy.

Asst. Surgn. Shoshi Bhusan Singh, of the Muzaffarpur dispy. leave for three months.

PUNJAB GOVERNMENT.

Asst. Surgn. Mehr Chand, Medl. Officer, Rajhanwali Section, Southern Punjab Ry., was transferred in a similar capacity to the Jhind Section of that Ry., from 30th June 1898.

Hosp. Asst. Uttam Chand Gujranwala, to Kariangwalla Dispy., Gurat Dist., from 15th July 1898.

Hosp. Asst. Uttam Chand, and Mahammad Aslam, dying genl. duty Mayo Hosp., Lahore, to Gujranwala in a similar capacity, from 6th and 7th June 1898.

Hosp. Asst. Uttam Chand, Gujranwala, to Dhaunkal in the same dist. for duty at the Dhaunkal Fair, from 14th June to 14th July 1898.

Asst. Surgn. Ralia Singh, Gujranwala Sadar Dispy., to Dhaunkal, Gujranwala Dist., for duty at Dhaunkal Fair from 14th July 1898.

Surgn.-Capt. H. Smith assumed charge Civil Med. duties of Amritsar, 19th July 1891.

Rai Sahib Asst. Surgn. Sahib Ditta, Dhingra, to Gurdaspur, where he assumed charge, Civil med. duties, 19th July 1898.

Surgn.-Major G. W. P. Dennys, Civil Surgn., Sialkot, privilege leave for month and 24 days, from 15th July 1898.

Surgn.-Capt. E. V. Hugo, 31st Punjab Infy. is placed in charge of Sialkot, from 15th July 1898.

CENTRAL PROVINCES GOVERNMENT.

Hosp. Asst. Lakshman Kesho is dismissed the service, by order of the Chief Commr., from 16th June 1898.

Hosp. Asst. Hashmat Ali, Hoganghat Branch Dispy., Wardha dist, to do duty under Officer in civil med. charge, Wardha.

Hosp. Asst. Hashmat Ali, to do duty under Civil Surgn. of Nagpur.

Hosp. Asst. Saiyid Mehdi Husain, on plague duty at Itarsi, to do duty under Officer in civil med. charge, Hoshangabad.

Hosp. Asst. Muhammad Hanif, on plague duty at Nagpur, to Behir Branch Dispy. Balaghat dist.

Hosp. Asst. Muhammad Amir, Behir Branch Dispy, to do duty under Officer in civil med. charge. Balaghat.

Hosp. Asst Murlidhar, doing duty under Civil Surgn. Jabbulpore, to the Civil Stn. and Police Hosp., Jubbulpore.

Hosp. Asst. Mohan Lal, Civil Stn. and Police Hosp. Jubbulpore, to the Dispy, at Patan.

N.-W. P. AND OUDH GOVERNMENT.

Asst. Surgn. Tarak Nath Ghose, Sadar Dispy., Saharanpur, privilege leave for one month, from 8th July 1898.

Hosp. Asst. Muhammad Abrar Husain, Manglaur Branch Dispy., Saharanpur Dist., to hold charge, Sadar Dispy., Saharanpur.

Asst. Surgn. Shankar Lal, Sadar Dispy., Etawah, to hold charge, civil medl. duties of that dist.

Surgn. Capt. J. Morwood, Civil Surgn, Shahjahanpur, to hold visiting med. charge of Hardoi, 3rd July 1898.

ASSAM GOVERNMENT.

Hosp. Asst. Nil Kanta Sen, a Supery.. Kamrup dist, to Lakhimpur dist., Dibrugarh Coolie Depot, 5th June 1898.

Hosp. Asst. Nil Kanta Bhattacharjya, Dibrugarh Coolie Depot, to Naga Hills dist., charge of Tamlu Mily. Police out, post, 6th July 1898.

Sheikh Abdul Gafur, on probation for six months, a Civil Hosp. Asst. in Assam, to Sylhet for duty as a Supery. under Civil Surgn., from 12th July 1898.

Sick leave for one month, is granted to Hosp. Asst. Kotisvar Guha, Jagi Dispy. Nowgong dist., from 18th July 1898.

Hosp. Asst. Brajendra Mohan Goswami, a Supery. Darrang dist, to Nowgong dist., Jagi Dispy., from 18th July 1898.

Hosp. Asst. Sheik Abdul Gafur, a Supery. Sylhet dist., to Banlyachong Dispy. in that dist. from 19th July 1898.

Mahamad Ismail, is apptd., on probation for six months, a Civil Hosp. Asst. in Assam, to Dhubri as a Supery., from 22nd July 1898.

Sick leave for four months, is granted to Hosp. Asst. Mahim Chandra Dutta, in extension of the four months' leave granted, 16th May 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Re. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTHS.

GREEN.—On July 1st, at Folkestone, the wife of Douglas Green, M.B., London, Surgeon-Captain I.M.S., of a daughter.

BOOKEY.—On the 2nd August, 1898, at Dunga Gali, the wife of Brigade-Surgeon-Colonel Bookey, I. M. S., of a daughter.

MARRIAGE.

DUCKWORTH—BUCHAN—20th July, at St. John's Church, Bangalore, by the Rev C. H. L. Wright, Walter Ernest Duckworth, L.R.C.P. and S, Edinburgh, L F P. and S., Glasgow, fourth son of the late Surgeon-Major F. J. Duckworth, to Elizabeth Scharlieb, eldest daughter of St. John Buchan.

DEATH.

KERIN.—On the 3rd August, 1898, at Neemuch, Central India, William Henry, dearly loved child of Surgeon-Major M. W. Kerin, Army Medical Staff, aged 9 months and 20 days.

NOTICES TO CORRESPONDENTS.

Z. Y. K. (Manipur).—Your report will appear in our next issue

G. F. (Calcutta).—The facts you report concerning "Numerous abortions by misadventure in a public hospital" will after due enquiry be published in this journal, The story of the pregnant lady who inadvertently had a stem introduced and who wore it for four months without an abortion occurring, is a remarkable instance of how a clever gynecologist can very easily make a mistake.

M. E. (Calcutta).—We have received your notes concerning the Eden Hospital and shall publish them after proper investigation. The fatal operation on Nurse Voss and the fatal results of the operation on the "six-weeks' bride" are noted.

F. O. G. Your case is a hard one, do nothing in haste, bide your time.

F. B. (Calicut).—Many thanks for your paper, it will appear in our next number.

G. F. (Murree).—We believe that as soon as Surgeon-Major Hodgkins returns from leave, Surgeon-Captain Wade will make over the monies and accounts of the Warrant Medical Officers' Provident Fund.

M. P. V. (Surat).—Asks for a prescription for checking the formation of premature white hair on the head.

A. S. Many thanks for the Punjab University papers. We shall try and use them.

Kanai Lall Chuckerbutty of Khowang, says the following prescription is infallible as a cure for Scabies—Zinci oxide 3ii, Thymol grs. v. Olei eucalypti, min. v. Olei. olivæ ad 3i. Wash and dry the parts and apply this lotion morning and evening.

ORIGINAL ARTICLES.

INFANT FEEDING.*

By George Carpenter, M.D., (London).
Senior Physician to Out-patients at The Evelina Hospital for Sick Children, London.

I need not impress upon you the importance of infant feeding, or apologise for having selected this subject, rather than a clinical demonstration on cases of interest in the wards of the hospital. Such sink into insignificance in comparison with the difficult problem I have selected. It is a problem which all of you are called upon daily, almost hourly, to solve, and that being so I venture to think that a practical demonstration on the subject would prove of sufficient interest, and repay you for an omission which my medical and surgical colleagues will fill very worthily. The natural food of an infant is, of course, the mother's milk, and all healthy mothers should feed their infants from the breast. It is one of the greatest privileges of maternity to feed its young from its own body. A healthy mother, who, for the sake of the contour of her chest, or because of the necessarily enforced abstention from gaiety, passes her offspring to the care of strangers for its nourishment, ought to be severely censured. Moreover, nursing is beneficial to the mother; it stimulates her uterus, and is a great preventive of future harm to that organ. But just as it is so desirable that a healthy mother should nurse her offspring, so it is most undesirable that a mother suffering from serious organic disease should attempt to perform that function. I would here mention phthisis and any tuberculous affection of the mammary glands as a contra-indication to nursing. Those in whom there is a strong family history of insanity had better not nurse their children, at any rate nursing should not be carried to such an extent as to undermine the general health. The fact must never be lost sight of that the mind has a great influence for good and evil on the body of the mother, and so on the production of milk. Emotional disturbances of all kinds are most harmful, and may make the milk actually poisonous to the infant. The child should be placed to the breast as soon as the mother has recovered from the fatigue of the labor, say in three or four hours after her confinement. If there is no milk at first, wait for a few hours until it is secreted, placing the child at the breast every three hours.

Do not give gruel; a little sugar-water may be given if necessary from time to time. As soon as the milk is secreted apply the child alternately to each breast, even through a preference is shown for one only. The child during the first week should be suckled every two hours, between the hours of 5 A.M. and 11 P.M., and only at fixed intervals. If the child be too weak and puny to take the breast, then it will be necessary to feed it at frequent intervals by teaspoonfuls, using either a sterilised mixture of cream and whey, or a peptonised humanised cow's milk, or a modification of Gaertner's milk, which I will presently mention. Cream and whey mixture is prepared as follows:—

Ordinary cream (20 per cent.)	1	fid. oz.
Whey	2	„
Sugar of milk	1	dsm.

This should be sterilised for half an hour.

The whey is prepared by adding Fairchild's essence of pepsin to fresh milk, which is to be gently warmed. When the milk is set, break up the curd quite small, allow it to settle, and then carefully strain it through several folds of muslin, finally squeezing the contained curd, so as to extract all the moisture.

During the period of nursing several important problems will arise. For instance, should a mother continue to nurse when she again becomes pregnant? Assuming that the mother and child are healthy, the child need not be weaned until the sixth month of pregnancy. Should, however, the double drain on the mother's constitution prove harmful to both of them, shown in the case of the child by gastro-intestinal disturbances, then weaning had better not be delayed. There is also just a possibility that the reflex effect on the uterus may lead to a miscarriage. Should any tendency to such a mishap be discovered, then the child must be fed artificially. Another point for consideration is that menstruation sometimes causes gastro-intestinal disturbance in the infant, said to be due to an increase of proteids in the milk. If this should occur give the infant a little boiled water before feeding, and reduce the meat diet of the mother. But there are some mothers who are only capable of partially feeding their offspring. What should be done? The breast milk should be supplemented by Roton's cream food or Gaertner's humanised milk, which I shall presently discuss, or a modification of cow's milk, previously determined by a chemical analysis of the mother's milk. If analyses of the mother's milk are decided upon, it should be drawn off by the breast pump five minutes after the child has been placed to the breast.

When a mother from various causes, is quite unable to suckle her child, two courses are open to you, namely, the employment of a wet-nurse, or the use of some modification of cow's milk. Of the alternatives, nothing can compare with a healthy wet-nurse, if her milk is suited to the digestive peculiarities of the infant to be reared. The fact that the wet-nurse should be strong and healthy and free from disease need hardly be dwelt upon, or that a careful medical examination will be necessary before engaging her. She should be between 20 and 30 years of age, and if the foster child is strong and vigorous a primipara may be selected, but should it be weak and puny, a multipara, as the milk will not be so difficult to digest. If her baby be strong and healthy, this will not be a point in her favor. She should not have been recently confined, as the colostrum is undesirable. It will not be a drawback if there is a difference of two or three months between the ages of the children, and in one respect it will be an advantage, as the wet-nurse's child will have shown any symptoms of congenital syphilis by this time, if the disease be present. Of course no syphilitic child can be allowed the advantage of a foster-mother. The treatment of the nursing-mother and the wet-nurse demands your careful attention. A plain mixed diet, with slight excess of fluids and meat above what she has been in the habit of taking, will be found ample. A small quantity of alcohol may be taken, if she has been accustomed to it; otherwise it is unnecessary. Alcohol in small quantities increases the

* Reproduced from the *Edinburgh Medical Journal* by request. A Lecture delivered to the Post-Graduate Class.

quantity of fat in the milk. Over-feeding and an excessive meat diet will make the milk so rich in proteids as to be quite indigestible. She should take exercise every day, and seize every opportunity of being out in the fresh air. You must not lose sight of the fact that various drugs, some of them of a poisonous nature, pass into the milk, and upset or perhaps even poison the child. Saline purgatives are not desirable, as they are likely to stop the milk. The health of the nursing-woman naturally requires attention, and dyspeptic troubles, or anæmia, will necessitate the appropriate treatment. If a wet-nurse is selected, she must not be allowed to visit her child, but the mother whose child she is nursing must make it her business to see that the child is properly cared for, as an anxious fretting wet-nurse will not produce good milk. No wet-nurse should be allowed to dose her charge on any pretence whatever. The administration of opium is not unknown. When should the child be weaned? The breasts, as you are aware, begin to fail at various periods of nursing, but no infant should be nursed longer than the first year, even under the most favourable circumstances, as rickets will surely result. When weaning has been decided upon, it should be done by degrees, the artificial food selected gradually taking the place of the breast milk. The process should extend over a period of one month, and at the end of that time the mother should send the child away, or leave it for a few days. Do not wean a child when he is cutting a tooth; avoid if possible the very hot season of the year, for fear of summer diarrhœa; and postpone it if he has just recovered from a severe illness. In the event of a mother being unable to nurse her infant, and in the absence of a wet-nurse, what artificial food can be recommended? There is but one answer to this question, and that is, cow's milk. Chemical analysis of healthy human milk shows that it is composed of the following constituents:—

Fat*	4 per cent.
Proteids	1–2 „
Milk-sugar	7 „
Salts	0·2 „
Water	...87–88 „

Cow's milk, on the other hand, is formed as follows:—

Fat	3 75 per cent.
Proteids	3 76 „
Milk-sugar	4·42 „
Salts	0 68 „
Water	... 87 39 „

From these tables it will be seen that cow's milk is richer in proteids and salts but poorer in sugar; therefore, in substituting cow's milk for mother's milk, we always dilute with water, to diminish the percentage of proteids, which are so apt to produce indigestion. But in doing this we are diminishing the percentage of fat and making it still poorer in sugar. Hence arises the necessity for adding sugar and cream. But treat cow's milk in whatever way you will, it is only a makeshift, and cannot be made to exactly resemble mother's milk chemically; the curd is different, it is not fully digested, it is also lacking in albuminoid, which is present in mother's milk. We must not lose sight of the fact that the milk sold in cities is more often than not stale, that it contains many impurities and is possibly contaminated with disease germs. Not only is this the case, but many dairy companies use boracic acid or other chemicals to preserve the milk; in other words, that the consumer may be able to obtain it as stale as possible. Boracic acid is often added in such quantity as to make the milk unfit for infant consumption, owing to the indigestion it produces. Apart from such contaminations and adulterations, cow's milk differs enormously in composition, according to the health of the animal, the time it has been in milk, and the quality of the food; hence the advisability of taking the milk from a mixed herd of cattle rather than from one cow, which was once the fashion. The milk of other animals can of course be used, but there is no advantage in this, as their milk will require modification to imitate human milk. Milk, as soon as it is received at the house, should be placed in a clean vessel, filtered through absorbent cotton-wool to remove gross impurities, and then sterilised to free it from the various germs with which it is contaminated. A reliable apparatus for sterilisation is ALT's,[1] which has the merit of being cheap as well as effective. The milk should be sterilised in the separate bottles provided with this apparatus sufficient for the day's consumption, at a temperature of 100°C. for a period of half an hour. After sterilisation the bottles must be kept in a cool place, free from all sources of contamination. Each bottle is to be unsealed and an indiarubber teat affixed, when the baby is about to be fed.

In out-patient hospital practice, as also in the poorer neighbourhoods, we frequently have to rely upon an unsterilised cow's milk, suitably diluted with water, so as to reduce the quantity of the proteids. A mixture of one part milk and two parts sugar-water, the later of which is made by adding 1 oz. of milk-sugar to a pint of water, approaches human milk in composition, but it is deficient in fat. The deficiency in fat can be remedied by adding 1 drm. of 20 per cent cream to every ounce of the milk mixture, and failing this ½ of the quantity of cream, in the shape of cod-liver oil, should be given to the child. This mixture should boiled for half an hour, and when it is cool a $\frac{1}{10}$ part of lime-water added to it makes the fluid slightly alkaline. Ordinary sugar may be used instead of milk-sugar, if the proper proportion is observed. In private practice ROTCH's cream mixture will be found reliable and very satisfactory. It is a near approach to human milk in chemical composition. For its preparation the ingredients are to be mixed, as soon as they are received from the dairyman in the following proportions:—

Cream (20 per cent.) ...	1½ fluid oz.
Milk	1 „
Water	5 „
Lime-water	½ „
Milk-sugar	3½ drms.

I will now call your attention to the method of preparation of GAERTNER's humanised milk. The fresh milk mixed with an equal quantity of boiling water is placed in the centrifugal apparatus, the Victoria cream separator. The machine is revolved at such a speed that the outcoming streams become equal. From one spout pours all the cream and half the milk and water, and from the other spout the remainder. The dirt remains in the machine. All the fat is thus obtained, half the proteids, half the

*The percentage of fat, according to Pfeiffer, is 3·1 per cent.; Kirkstone 3·6 per cent.; Leeds, 4·1 per cent.; Hoffmann, 4 per cent.

1 This can be procured from Dr. Schall-Seaman, Woburn House, Woburn Place, London, W.C.

milk-sugar, and half the salts. To bring the sugar to the required standard, 5½ drms. of milk-sugar are added to every pint of this mixture before bottling. It is then sterilised in the bottles, which contain the milk ready for consumption. Should half the original proteids be still too large for the digestive capabilities, the mixture, before the sugar is added, can once more be diluted with boiling water and again sent through the centrifugal cream separator, thus obtaining all the fat, one-fourth of the original proteids, salts, and milk-sugar. In that case a larger quantity of milk-sugar will have to be added, if the human milk standard is desired. The percentage of fat in the GAERTNER milk is always kept at from 3-2 per cent. to 3-5 per cent. The casein of this milk, when it is precipitated by the gastric juice, curdles in a flocculent form in the same way as does mother's milk, and not like india-rubber, as is the case with cow's milk. I have made arrangements with the Friern Manor Dairy Co., of 20, Farringdon Street, E. C., who are responsible for the process in London to dispense a sterilised milk mixture of any desired chemical formula, on receipt of a doctor's prescription. The great importance of this will be readily recognised. It will enable you to feed your infant patients with an approach to scientific precision which has been hitherto unknown in this country. By means of this you can readily vary the quality of the food, according to the digestive capabilities of the child. If you find that the proteids supplied in the humanised milk are still in too great abundance, and induce gastro-intestinal disturbance, all that will be necessary for you to do will be to send your prescription to the office, instructing them that your requirements are, say, 0·5 per cent., or 0·75 per cent, or 1 per cent., of proteids, or any other percentage you may select, in your milk mixture. In the same way you can regulate the quantity of fat in the shape of cream; in fact, select any percentage that may appear desirable should diarrhœa or vomiting from an excess of fat prove troublesome. On the other hand, if the fat supplied be insufficient for the requirements of your patient for a deficiency of fat leads to anæmia and constipation, then you will be able to increase the quantity. The quantity of milk-sugar can also be regulated as required.

It has hitherto been the custom in cases of summer diarrhœa to withhold all milk and feed temporarily on albumin water, but ROTCH, who was the pioneer of the WALKER-GORDON milk establishments of the leading American cities, has found that if the fat is reduced to 1·5 per per cent., the proteids to 0 25 to 0·75 per cent., and the sugar to 4 to 5 per cent, the milk agrees very well. For prematurely born infants the GAERTNER milk can readily be adapted to their digestive capacities by reducing the proteids to 0·5 per cent., or perhaps a trifle less. The Friern Manor Dairy Co., at my request have consented to supply all the metropolitan hospitals both outpatients and inpatients, with milk at cost price, on receipt of a physician's order; and doubtless they will be prepared to do the same with your patients should you deem the case worthy of such assistance.

Before leaving this subject, let me tell you that the Gaertner milk is not sterilised to last indefinitely—it should not be kept for a long time. Full sterilisation makes the milk brown from caramelisation of the sugar; and changes take place in the fat and sugar, which make them indigestible. Further, sterilisation does not destroy germs with absolute certainty, any bacteria that may be left are not necessarily harmless, and proliferating bacteria cannot always be recognised by signs of decomposition. Therefore, sterilised milk should not be kept for too long a period, but should be consumed as soon after sterilisation as possible. Sterilisation appears to rob milk of its antiscorbutic properties, therefore infants who are being fed upon it require careful watching and any suspicion of the avent of scurvy must be combated by the ingestion of orange juice. The WALKER-GORDON laboratories do not sterilise their milk unless compelled, the distances to be travelled determining this. They rely on ice for its preservation for twenty-four hours. There are several other humanised milks on the market, the oldest and best known preparations being those of the Aylesbury Dairy Co., whose milks, I have no doubt, you have frequently used in your practice. LLOYD, in the *Dairy* of 15th March 1897, calls attention to some samples of humanised milk. In one sample the fat was 1·1 per cent., in another 5·2 per cent., and the sugar 3 5 per cent.; and he calls attention to even worse samples than these, one containing over 10 per cent. of sugar.

The question must frequently present itself as to whether barley-water, or oatmeal-water, or rice-water should be added to milk These waters certainly have nutrient worth, and cause the curd to split up into fine particles, and thus render it more easy of digestion. If eczema is induced by the use of these, gelatin jelly may be substituted. Barley-water may be added to ROBINS' cream mixture, instead of plain water, if necessary. Prepare it as follows:—Take two teaspoonfuls of ROBINSON'S patent barley and place in a clean jug. Pour on it a pint of boiling water, stand by the fire for an hour, stir frequently, an add a pinch of salt. The same quantity of oatmeal or ground rice can be used in place of the barley. These waters should be sterilised with the milk to which they are added. Should milk be partially or wholly peptonised? As a temporary measure peptonisation of milk is beneficial. It should be reserved for cases where there is troublesome sickness, or diarrhœa, or the digestive powers are exceedingly weak, and then only to tide the infant over its illness. If it is persisted in, the infant's gastro-intestinal glands will not develop properly, and the seeds of dyspeptic troubles in after life may be sown in infancy.

This question also must frequently present itself to your minds, "What can be urged in favour of the use of condensed milk?" It does not "turn" quickly, the curd is digested better because it is not so thick, and it is convenient when travelling. The best brands are "The Milkmaid" and "The Viking," but to bring them up to the human milk standard it will be necessary to add 1 drm. of sterilised 20 per cent. cream to every fluid ounce of these when mixed with water. The former also requires 1 drm. of milk-sugar to every 1½ fluid oz. when mixed with water and 1 drm. to every ½ fluid oz. of the latter when so mixed. In both cases there is a loss of phosphate of lime salts. It has recently been ascertained that Swiss cows are tuberculous to a far greater extent than the cows of any other country, namely, 85 per cent. of all the cows. Swiss milk

is, as you are doubtless aware, evaporated *in vacuo* and therefore not sterilised, consequently the tubercle bacilli are not destroyed. There are several dried milk foods on the market, and I now present for your inspection those of Messrs. Allen & Hanbury. Dried milk foods are small in bulk, and their proteids are digested with greater ease. They are said to be sterile. No. 1 is a human milk imitation prepared from cow's milk. It is called "The First Food for Infants," and is recommended to be used during the first three months. No. 2, called "The Mother's Milk Food," stated to be for use from 3 to 7 months of age, is prepared in the same way, but contains in addition soluble starch derivatives and sugar, also albuminoids and salts extracted from whole wheat-meal and barley-meal. I pass round for your inspection Nos. 1 and 2, and also the solutions made from these according to the directions. Should either of these preparations agree, the addition of fat may be found desirable and advisable in the shape of ordinary 20 per cent. sterilised cream, 6 drms. to every 6 oz. of the fluid, when prepared as directed, of either No. 1 or No. 2.

Mr. C. DRENCKHAN, of Steudorf, Germany, also succeeded in making what was apparently a perfect dried milk food. The German navy patronised it, also private shipowners, but unfortunately it would not keep, as the albuminoids decomposed and the fat went rancid. No preservative had been added, and it appear from this that some chemical preservative is necessary to prevent decomposition in dried milk foods. Of course, as long as they are kept dry, germs cannot multiply in them. Whilst discussing all these methods of infant feeding now in vogue, the scientific advantages to be obtained by the use of GÄRTNER'S milk,or rather the modifications of the process I have related, must be sufficiently obvious to you, and I need hardly, therefore, advise you to adopt this process in preference to any other I have mentioned. Any system in this country which will give us equal facilities to our American confreres, and enable the medical profession to supervise and control its infant dietetics, should be welcomed, and the advent of the WALKER-GORDON laboratories in Great Britain would prove a positive boon. Such a system permits you to become responsible for the prescribing and ordering of the diet, and not the advertising baby-food manufacturers, who dictate to you in the most barefaced way as to the manner in which an infant should be fed. The alert foodmonger has too long held undisputed sway in the nursery, and it is high time that the bulk of the medical profession in England should wake up and relieve itself of what is a great opprobium in the eyes of more advanced nations in this respect, and for which, from the generally lethargic attitude it adopts regarding infant feeding, it is certainly responsible. It can only do so by taking an interest in this difficult subject, and by being able to control at will the quantities of the important constituents of the milk which are known to prove a source of trouble in infant feeding. The gain to the infant world will be immense, the huge infant mortality will not be a crying disgrace as it is at present, and value of the knowledge to be gained by the medical profession, working in unison on scientific principles, cannot be over-estimated. The next question for our consideration is, "How often should the infant be fed, and what quantities of food should be given at each feeding?"

The quantity must be determined by the age, the weight and the digestive powers of the infant. For the average infant the following table will be found a useful guide:

	Intervals of Feeding	Number in Twenty-four Hours.	Average Amt. each Feeding	Average in Twenty-four Hours.
First week ...	2 hrs.	10	1 oz.	10 oz.
First month .	2½ „	8	1½–2 „	12–16 „
Second month	2½ „	8	3–4 „	20–30 „
Third and fourth months	3 „	7	4–5 „	30–35 „
Fifth and sixth months ...	3 „	6	6–7 „	35–40 „

The quantity of milk administered within these specified limits will depend upon the constitutional peculiarities of the infant, and upon the previously mentioned factors, but the maximum amounts here advised should not be exceeded. The hours of feeding shoud be between 5 A.M. and 11 P.M., and punctually observed; if they are faithfully adhered to, the child will wake crying at the regular times appointed for its meals.

A word about feeding-bottles, an assortment of which, along with various rubber teats, I have just received from Paris. The bottles supplied with ALT'S steriliser can be recommended, and the soft rubber teats accompanying them can be readily turned inside out and thoroughly cleaned. When cutting these do not make the orifices too small, or the infant will not be able to suck properly, and if too large it will bolt its food, and the inevitable will follw. The old boat-shaped bottle is good, and that supplied by Allen & Hanbury can also be recommended. Feeding-bottles of this class compel the feeding of the infant by the nurse, the tendency to food-bolting is controlled, and the disgusting habit of placing the bottle in the cot with the child is prevented. It is hardly necessary to insist upon chemical cleanliness; therefore the use of bottles with internal indentations, or those provided with tubes, must be strongly condemned.

At the commencement of the seventh month, if the infant is still thriving, the modified cow's milk which has been found suited to it should be still continued, the child taking from 35 to 40 oz. in the twenty-four hours, and there need be no change of diet until it is 10 or 12 months old. It should be fed every three hours, the average amount at each feeding being 8 oz., namely, at 8 A.M., 11 A.M., 2 P.M., 5 P.M., and 11 P.M.

The digestive powers are now quite able to deal with well-cooked starchy foods, if not given in too great abundance. Should the growth of the muscles, the bones, and the teeth prove slow, and the skull bones become softened, then it will be advisable to add cereals to the modified cow's milk. During the seventh, eighth, and ninth months, the weekly gain in weight should be from 3 to 3½ oz., and during the tenth, eleventh, and twelfth months, from 1½ to 2 oz. Increase in weight must not be looked upon as a certain guide, because, as you are aware, rachitic children are often fat and clumsy. Any of the cereals may be given, namely, oats, rice, barley, wheat, or maize

The grains should be washed, then ground into a fine powder in a coffee-mill, and finally passed through a No. 80 sieve. Two tablespoonfuls of the meal to a pint of milk will make a suitable mixture. Great care must be exercised in the preparation of the food which, when thoroughly cooked for twenty minutes in a clean enamelled saucepan, should be placed in the separate bottles of the steriliser; and after sterilisation removed to a cool place, from which it can be fetched as required. Should the starch prove troublesome to digest at first, it may be partially predigested by using an artificially prepared ferment, such as Diastol, manufactured by the Standard Malt Extract Co. which is a reliable preparation. This naturally leads us, in conclusion, to the offering of a few remarks on the subject of the various patent infant foods, whose aquaintance you have doubtless made before in many households. Here, on the table, you will see the names of the best-known foods, together with the most prominent features of their composition. When they should be used, when they should not be used, whether should be used under any circumstances, will be apparent to you from the remarks I have previously made on the subject of infant dietetics.

Names of food.	Most Prominent Features of their Composition.
Neave's Ridge's and Frame food,	Starch (unaltered).
Nestle's, Anglo-Swiss, American-Swiss, and Franco-Swiss.	Starch cane-sugar, and milk. When suitably diluted fat and albuminoids small in quantity.
Carnick ...	Starch, sugar, cow's milk, and an animal digestant. When suitably diluted, fat and albuminoids small in quantity.
Mellin ...	Sugar and soluble starch derivatives. When mixed with milk, as directed, the fat is deficient, and the albuminoids are more than advisable.
Benger ...	Starch, sugar, soluble starch derivatives, and an animal digestant. When mixed with cow's milk there is an insufficiency of fat.
Horlick's malted food...	Dry powder. Human milk imitation. Soluble starch derivatives and an animal digestant When mixed with water very deficient in fat.

The time at our disposal has unfortunately been short, and the importance and extent of the subject out of all proportion to such a time restriction. Much has been omitted that might have been mentioned, and much only rapidly passed in review which merited greater attention. In spite, however, of the shortcomings, I hope that what I have brought to your notice will prove of assistance to you in your practice.

BLOOD-LETTING AS A THERAPEUTIC AGENT.*

By Bela Coggshall, M.D.,
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At the risk of being called an old fogy, I have selected this sanguinary and nearly obsolete subject as the theme of my paper for this occasion, it being no less than one of the lost arts as aptly designated by Gross. For nearly 2000 years blood-letting was regarded by our most eminent and enlightened men as a potent and efficient remedy in the treatment of disease—a therapeutic agent that could not be dispensed with; and yet to-day it is ignored and treated by most of the profession as a useless thing. Can it be possible that so many acute observers and clever practitioners of past generations could be mistaken as to the potency of this remedy? Is it not possible we are making a mistake in not using it more freely in the closing days of the nineteenth century? What has brought about this extraordinary and radical change of sentiment? Has the type of our diseases changed, as some claim and argue, or has fashion and authority changed?

Was the ancient practise all wrong, and is the present modern practise all right? Dr. John Brown of Edinburgh and Dr. Todd of London, who are regarded by their followers as great reformers, maintained that the type of disease has changed, and that stimulants instead of depressants are indicated in this day and generation. The late Professor Gross takes issue with this, and says of all the delusions that called Toddism, has exercised the most persuasive and baneful effects upon civilized society. Ensconcing itself behind a false position, it has literally enslaved the medical world, entrapping alike the wise and foolish, and sweeping over human life with a force equal to that of the most destructive hurricane. He argues that the inmates of their hospitals were from the lower walks of life, broken down by overwork, privations, and intemperance, consequently were not able to bear depleting remedies. It was from a study of this class of cases that these famous men in an evil hour deduced the absurd doctrine of a change of type in disease. He adds: "I assert without fear of successful contradiction that man's power of endurance in health and disease is not one particle less than it was fifty years ago, when depletory measures of every form was the order of the day; when, in fact, it would have been deemed derogatory to a physician's character to let a patient die without the aid of such remedies." The exploits performed during our late terrible war alone are sufficient to settle this question. Never since man battled with man for national supremacy were there so many rapid, laborious and brilliant marches executed in so short a time as there were on both sides of the line. The exploits of the soldiers of Alexander, Hannibal, Cæsar and Bonaparte fade into comparative insignificance by the side of some of our generals. Our laborers, farmers, miners, hewers of wood and carriers of water, mechanics, artisans and professional men evidence no evidence of decline in muscular power or mental endurance. Our sailors are as hardy a race of men as they were in the days of Sir Francis Drake or Captain Cook.

The influence of authority has been great in ages—e

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tyrant that has slain thousands. The tyranny of fashion effects the practise of medicine as it does other things in human affairs. The remedies we swear by to-day are neglected and forgotten to-morrow. The pendulum swings backwards and forwards from one extreme to the other. Extremes are always dangerous, and certainly nowhere more so than in the practise of medicine. Half a century ago authority and fashion were responsible for the absurd practise of bleeding, purging, or sweating nearly every patient regardless of ailment. "We cure the sick," says GUY PATIN, a professor in the Royal College of France, "when over eighty years of age by bloodletting, and also infants of not more than two or three months with as much success and as little inconvenience."

Is it any wonder this indiscriminate use of the lancet brought on a reaction? Still it was a hard fought battle that STOKES and others waged against this practise. Listen to the eloquent pleadings of STOKES and SYDENHAM against the authority and against the excessive bleedings, the purgings and sweatings of fifty years ago. "Though his hair be gray and his authority high, he is but a child in knowledge and his reputation is an error. On a level with a child so far as correct appreciation of the great truths of medicine is concerned, he is very different in other respects, his powers of doing mischief are greater, he is far more dangerous. Oh! that men would stoop to learn or at least cease to destroy." In the treatment of fevers the fetters of a thousand years were shattered by SYDENHAM—shattered only to be riveted anew.

GROSS says: "Authority annually slays millions of human beings. Its pernicious effects upon human life, in its individual and collective relations, are seen and felt in every direction, in the construction of our dwellings, in our habits and occupations, in our dress, social amusements, food and drink, and in a thousand ways. Of its malignant influence in our profession, examples daily fall under our observation as the results of pernicious doctrines and practise. Superstition and fanaticism have kept the world in a state of intellectual bondage from the earliest records of society down to the present moment. The spiritism of the present day had its counterpart in the witchcraft of three centuries ago, fortunately without the hangman's halter Every age has its peculiar absurdities, characteristic of the minds of some of its people. . . . The fate of blood-letting teaches us an important lesson not at all calculated to elevate our pride as men entrusted with the preservation of the health and lives of our fellow beings. It shows what little faith there is to be placed in human judgment and how sadly we are influenced by authority and fashion in a matter pertaining to the dearest interests of society. If I wanted to be satirical, I should say that there are in our profession, as there are indeed in every other, two distinct classes of men—the thinking and non-thinking. The former, whose number is exceedingly limited, accept every novelty or great and sudden change with suspicion, wisely concluding that the one should not be rejected without sufficient cause, nor the other adopted until it has been fairly tested. The non-thinking man, on the contrary, eagerly lays hold of every novelty and seldom stops to seek a reason for his new faith. He adopts it simply because his neighbor adopts it."

Thus it may be seen that fashion and authority is a master that is not easily overcome. Every innovator from Harvey to Lister has been made to feel its force. Yet we opine the influence, the value of authority *per se*, has lessened enormously of late, and the pendulum may swing to the other extreme, to our hurt. HOOKER says practise loves authority. Science must ever hold with Epicharmus that a judicious distrust and a wise skepticism are the sinews of the understanding. And yet the very foundations of belief in almost everything relating to our art rest upon authority. SYDENHAM was called the man of many doubts, and therein, methinks, lay the secret of his great strength. SYDENHAM broke with Authority and went to Nature. His motto was:

"Thou, Nature, art my goddess; to thy laws my services are bound."

A recent writer has said SYDENHAM is unlike every previous teacher of the principles and practise of medicine in the modern world. OSLER says: "SYDENHAM—not LINACRE or HARVEY—is the model British physician, in whom were concentrated all those practical instincts upon which we lay such stress in the Anglo-Saxon character. Thus it is with our authorities. Shifting like the sands in the hour-glass, the dogmas of the schools to-day may be dethroned in the next decade. Truth is usually found between the two extremes and should be totally emancipated from the bondage of error and prejudice. Modern medicine has evidently entered upon a period of exceptional development. He who would keep up with the procession must be up and doing. He must think and reason for himself, and if needs be must step outside of the beaten path and act on his own responsibility."

That the treatment of disease has been greatly simplified, and that we are much better acquainted with the nature and treatment of disease than half a century ago, is universally conceded. The development in chemical science, the studies in pathological anatomy and histology are mainly accountable. We have veratrum viride, aconite and the coal-tar series to combat inflammation that our forefathers knew not of, but yet I contend that bloodletting is a therapeutic agent that ought to be used in cases specially adapted. In all severe and dangerous inflammatory troubles that threaten to destroy life speedily, in my humble opinion this remedy ought to stand at the head of our therapeutic agents to-day, knowing from experience that nothing acts so speedily and energetically in dangerous inflammation as well as in congestion of the various organs. This position I will fortify by a few quotations from eminent writers of the conservative school. As before stated, we cannot believe such eminent observers as GROSS, WOOD WASTON and hundreds of others could be mistaken when they placed blood-letting at the head of the list of remedies in inflammation.

GROSS says in his great work on surgery: "General bleeding may justly be regarded as standing at the head of the list of constitutional remedies for inflammation, as it is at once the most speedy and the most efficient means of relief. . . . Its value was not overestimated by the older writers, who designated it as the *summum remedium* in the treatment of inflammations. Yet strange to say, blood-letting, notwithstanding the high rank it has always occupied as an antiphlogistic agent, has of

lists fallen very much into disrepute, particularly on this side of the Atlantic, where it had at one time so many advocates. A great change has come over the profession in this respect in the last fifteen years (written in 1894) and is steadily gaining ground, subverting all our preconceived notions upon the subject and rendering it very questionable in the opinions of many whether blood-letting is really ever required as an antiphlogistic. Whether the change has been the result of a modification of the type of disease or of a more approved method of treatment with other remedies, or simply of the whim or caprice of a few prominent and influential practitioners from whom the rest of the profession have imbibed their views, I am unable to assert, but the fact does not admit of a doubt that more quarts of blood were formerly spilt than ounces are spilt now. Bleeding is no longer the fashion; the operation is denounced by every one. Public sentiment has got to an extreme upon the subject, and we may therefore look for a reaction in favor of the opposite opinion. For myself I can but regret this state of things, because I feel satisfied that it does not rest upon a just and proper basis. If we formerly bled too much, too frequently, too copiously, and too indiscriminately, it is equally certain, at least to my mind, that the operation is not often enough resorted to at the present day. Many a deformed limb, blind eye, enlarged spleen and crippled lung bear testimony in every community to the justice of this remark."

WATSON in his Practice of Physic says: "Of all *direct remedies* of inflammation, the abstraction of blood, or blood-letting, as it is called, is by much the most efficient and important." Again he says: "The great remedy in acute and dangerous inflammations is blood-letting, and when this remedy is used at all, it should be used freely so as to produce a decided impression, and its efficacy will always be greater in proportion as it is applied in the early stages of the inflammation."

WOOD in his Practice of Medicine says: "In pneumonia in persons with vigorous constitutions bleeding is the most efficient remedy. No disease bears the loss of blood better than open, well developed pneumonia." He also says under general remedies in inflammation: "Bleeding to meet the first two indications; no remedy is so efficient as bleeding In all times blood-letting has been recognized as a most efficient remedy in inflammation, and the experience of so many thousands who have employed it, cannot have been mistaken on so simple a point of observation. My own personal experience with the remedy is certainly altogether in its favor. Having been in my early professional life opposed to the excessive use of the lancet then in vogue, I have had no prejudice in favor of the remedy; and yet I can most conscientiously declare that I have almost never had occasion to regret using it in inflammation, but on the contrary have had frequent occasion to regret that it had not been used more freely. I know as positively as I can know anything from observation, that it is not only capable of relieving inflammation in the early stages, but will often cut it short and lead to prompt convalescence; nor so far as I am capable of judging is there anything in the condition of inflammation at the present time within the limits of my observation which renders bleeding less efficacious than formerly."

If this be true (and such is my belief), then is it not time to help bring about a reaction? for I am fully persuaded bleeding is again to take its place as a therapeutic agent. Knowledge runs in a circle; history is constantly repeating itself; consequently bleeding will again come into fashion, not, we hope, to be used so absurdly as half a century ago, but judiciously in the robust and plethoric to promote resolution and save tissue in the early stages, when it has been truthfully said by GROSS: "A copious bleeding at the onset of a violent inflammation is gold; at its height, lead; or, to express myself more clearly, life in one case, death in the other."

So much for this phase of the subject. I will now briefly mention some of the diseases to which blood-letting is more particularly applicable. This embraces the inflammations of various organs—pneumonia, pleurisy, inflammations of the brain and its envelope, acute pericarditis, endocarditis, hepatitis, peritonitis, enteritis, cystitis; in short, all of the "itises" too numerous to mention.

Inflammatory troubles are not the only affections in which bleeding is indicated. In puerperal convulsions in a plethoric subject I regard venesection as the sheet-anchor of our hopes. I have been unfortunate enough to have had more than a dozen cases of this terribly alarming and dangerous disease with a small death rate, owing as I think to heroic and copious bleeding followed by strong anodynes and antispasmodics In certain forms of apoplexy bleeding is very serviceable, as well as in acute asthma. Certain forms of hysteria and epileptic convulsions dependent upon congestion of nerve centers, with a redundancy of blood in the general system, are often benefited by bleeding, so are comas from uremia. An interesting case is reported by DR. B. W. RICHARDSON, in the *London Medical Times* in a paper "On Blood-letting as a Point of Scientific Practice"

Case 1.—Cupping. In many cases it is not necessary to open a vein to get the remedial effects of bleeding, for the wet cup will often answer as well if not better. For over thirty years I have been in the habit of using the cups (not that of inebriates) freely in a great variety of ailments, and nothing with more speedy and satisfactory results. Well do I remember a case that occured in my practise when a young and inexperienced man, a few months after I had commenced the practise of my profession. A Mrs. S——had been confined—not a difficult labor—but for some reason she was stricken with paralysis of the left side during my absence on my wedding trip. Dr. DAVIS, an old competent practitioner who had consented to take charge of the case for me, called in Dr. WIXON, and after several days of active treatment gave no encouragement for her recovery. On my return to duty I immediately gave her a thorough wet cupping from the nape of the neck to coccyx, abstracting several ounces of blood. Before I had completed this process she got the use of both limbs that had been paralyzed for more than a week. I need not assure you it created quite an excitement in the village and added

immensely to my reputation, for it was no small thing to out do two such old and experienced physicians who were practising their profession before I was born. Is it any wonder I had confidence in cupping after this?

Case 2.—Another remarkable case which I had a few years later. I had been away on a visit to Flint to see my old classmate, Dr. MURRAY, and neglected to take my medicine case with me. I met an acquaintance, who accosted me thus: "Doctor, for God's sake hasten to the relief of Mr. I——just ahead here; they think he is dying. Have sent to FLINT for a doctor. Tell them I sent you, and do what you can for him." I went as directed and found the house filled with sympathizing neighbors. The patient was racked and screaming with pain—was, in fact, not in his right mind. His pathetic cry was: "Boys I am dying; its too late; the gates of Heaven are shut; I can't get in." Friends and neighbors were in tears, and great excitement prevailed. I told them I was a doctor and would do what I could for him. But lo and behold! I had not a drop of medicine with me, and was ten miles from a drug store. I remembered my cups. I directed them to bring me two of the largest glasses they had in the house, some matches, and an old newspaper, and I soon had two powerful cups abstracting blood. He continued his distressing cries for about ten minutes, when he shouted at the top of his voice, "Glory to God, boys; I am inside the gates." I had drawn him in with two ordinary water glasses. It was wonderful what a change of scene took place on that stage of action. Laughter took the place of crying, and the young doctor was quite a sensation. He had accomplished wonders and without medicine. Several hundred dollars' worth of business in this neighborhood soon followed, where before I was a total stranger, as I lived ten miles away. Is it any wonder I am a firm believer in the efficacy of cupping?

Case 3.—Mr. P——consulted me for a severe and constant pain in right side over region of liver Had been treated by three good physicians successively for weeks with no apparent benefit. One thorough cupping and the abstraction of a few ounces of blood relieved and cured him without medication.

I could report similar cases—several score—but space forbids. The following severe case of pneumonia will answer to illustate and emphasize my argument that bleedings, general and local, are potent therapeutic agents that should be resorted to far more frequently than is the case at present.

Case 4.—Was called to see Mr. C——, a strong and robust butcher stricken down suddenly with a severe pneumonia of the left side. I immediately abstracted several ounces of blood with the cups, which greatly relieved him and broke the force of the disease. A week later he was attacked in the other lung. Again I resorted to the cup on this side, with the same result. Before he had recovered, from this double pneumonia he had a severe attack of enteritis, which was followed by acute inflammation of the kidneys, and yet, strange to say, he recovered from this three months' siege and lived several years. I am fully persuaded the abstraction of blood in the start was the prime factor in his recovery, for several of our prominent citizens succumbed to this dangerous disease in the hands of others during his sickness.

A few words as to my method of cupping and I have done. I have tried all sorts of apparatus, but the best is an ordinary water glass of good size, with smooth and thick rim. I ruffle up some ordinary newspaper and light it and let burn for a few seconds in the glass, then apply it quickly. For a scarifier I use a thumb lancet or an ordinary bistoury from my pocket case, consequently I am always prepared if my cupping case happens to be at home when wanted, as is quite apt to be the case.

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SOME FORMS OF RECTAL DISEASE.*

BY H. GREENWAY HOWSE, M.S., Lond. F.R.C.S.

Vice-President of the Royal College of Surgeons: Surgeon and Lecturer on Surgery at Guy's Hospital, Consulting Surgeon, Evelina Hospital for Children; late Examiner in Surgery, University of London.

THIS coachman, aged 54, said that on the Saturday before admission to hospital he felt an itching about his ischio-rectal region, followed by pain which particularly affected his left groin and then returned to the ischio-rectal fossa. When admitted, he still complained of pain and there was a sense of fluctuation that pointed to pus collection; but a few hours before I saw him the abscess burst, discharging an exceedingly fetid pus and as there was still a good deal of swelling we had to put him under A. C. E. anæsthesia to enlarge the aperture and properly drain the cavity. A free incision parallel with the left side of patient's anus was followed by a further copious discharge of pus and showed that portions of the skin and underlying tissues had undergone complete gangrenous inflammation. In these cases the inflammation is often so acute as to arrest nutrition and induce gangrene by causing complete stasis in the blood vessels of the affected part, and the possibility of this gangrene happening is a *strong* argument for early incision to relieve the stasis, discharge the stagnated blood, restore the circulation and preserve the nutrition of the part. The suppuration in this case was very extensive, going parallel to the rectum into the pelvis and as it also extended into the opposite ischio-rectal fossa, a counter-incision had to be made on the other side of the anus.

*Abstract of a Clinical Lecture delivered at Guy's Hospital, London.

A gunshot probe passed through the incision ran up a good seven inches and came very near the mucous membrane in one place but failed to find the cause of the suppuration, which was very high up beyond the reach of the finger. Just note how rapidly this pus formed. The whole trouble apparently dated from only three days before and the pain was probably caused by the pus pressing in the direction of the sigmoid flexure giving rise to irritation, and then fortunately burrowing downwards.

In a previous lecture I drew your attention to the connection between ulcers of the rectum, fistulæ and ischio-rectal abscesses. If one of these ulcers formed higher up than the internal and external sphincter it would be inferior to the internal sphincter and the lavator ani, all of which parts aid in determining the direction which the suppuration will follow. A suppuration at this point in the pelvic interior will have a tendency to extend *upwards* because of the difficulty to force its way past the levator ani into the ischio-rectal fossa. Sometimes the pus burrows upwards for 6 to 8 inches or more (before it softens through and perforates the levator ani) and forms a very extensive sac, the contents of which may burst into the peritoneal cavity. But every case of ischio-rectal abscess does not necessarily communicate with the rectum, as there are other abscesses which burrow down and simulate rectal fistulæ, and in some diseases connected with the tissues around the cæcum or the ileum the pus may be foul, fæcal in odour and color and yet have no direct connection with the intestine. This (last) is probably due to the B. Coli Communis passing through the unbroken wall of the intestine, and something of this sort may also occur in extensive pelvic suppurations.

Another cause (but rare) of pelvic abscess is suppurative bone trouble in which the pus contains caseating structures and sometimes pieces of dead bone, and the diagnosis may be strengthened by looking for disease of the spine of the sacro-iliac synchondroses.

Prostratic or urinary suppurations or abscess connected with the uterus or its adnexa may also cause pelvic abscess.

Rectal ulcerations are more difficult to treat and are much more common in women—married women especially, than they are in men because of the peculiar conformation of the female sexual organs permitting specific vaginal discharges trickling down over the perinæum into the radiating folds of the anus, and conveying the infection by continuity to the rectum. Ulcerations of the male rectum are often due to abominable practices but it is not at all necessary that they should rise from the same cause in women.

To treat such ulceration you must first get rid of the septic cause by means of antiseptic vaginal douches, (such as corrosive sublimate, 1—2000, followed by boracic lotion) and when the vaginal discharge is got under control, treat the rectal ulcers with an escharotic, as nitric acid followed by lunar caustic. The nitric acid destroys the virulent material in the granulation tissues on the surface, while the silver nitrate coating the part with a layer of chloride and albuminate of silver, acts as a sealed dressing which protecting the ulcer against re-infection leaves the after pain much less intense. Recovery may be expedited and the parts put at rest by forcibly stretching or dividing the sphincter.

In fissure of the anus which is really painful, ulceration, most usually of syphilitic origin, at the bottom of one of the radiating anal folds, forcible stretching of the sphincter—at best of times a most painful proceeding—by introducing both thumbs into the anus and forcibly separating them till they touch the tuberosities of the ischium, generally suffices to effect a cure; but in some cases simple stretching is not sufficient and we must freely divide the anus, cutting *backwards* nearly to the tip of the coccyx, so as to separate the fibres of the external sphincter and by thus enlarging the anus, the resistance to the passage of hard or scybalous motions is diminished and rest is given to the rectum, which is thus put into the most favorable position for the healing of the ulcers.

A word or two about the treatment of hæmorrhoids by clamp and cautery when the affection is high up. Having chloroformed the patient, induce reflex contraction of the bowel by thoroughly dilating the anus. This irritates the mucous membrane and protrudes the pile, which may then be seized with the fenestrated forceps and drawn forward to permit of the clamp being placed on it and tightened. Then cut off the projecting part of the pile, leaving a good piece beyond the blade of the forceps, after which burn the stump right down to the blades with the actual cautery. Do not use the vulsellum forceps, for not only does a sharp forceps go into the pile and cause bleeding from it, but it may even go through the muscular coat of the intestine which may become included with the pile you are cutting off and thus make an opening into the ischio-rectal fossa, which may result in troublesome and prolonged ulceration or suppuration.

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THE DIAGNOSIS OF CUTANEOUS SYPHILIDES.*

By C. F. Marshall, M.D., F.R.C.S.,

Late Resident Medical Officer, London Lock Hospital.

The majority of skin lesions met with in syphilis are no doubt comparatively easy to diagnose; but many cases occur which are extremely difficult to decide in the absence of confirmatory evidence, and the more one sees of such cases the more doubtful one becomes.

The main characteristics of cutaneous secondary syphilides, according to the text-books, are: *Polymorphism*, *pigmentation*, *absence of itching*, and *distribution*. Let us first consider these points.

Polymorphism.—This holds good in the large majority of cases, so much so that it is often unwise to make a diagnosis of syphilis in the absence of other syphilitic lesions, if only one type of skin affection is present.

Pigmentation.—This is also usually characteristic, the colour varying from that of raw ham to a copper colour. However, by no means all syphilides become pigmented in this way.

Absence of Itching.—This, although common, is not a universal characteristic. Many syphilides, especially late secondary ones, are accompanied by more or less itching or burning sensations. No doubt this depends to a great extent on the degree of sensitiveness of the affected person.

Distribution.—Secondary syphilides have a tendency to symmetrical distribution. This is especially the case in

* Reproduced from Treatment by request.

the earlier eruptions, but the later secondary lesions are much more irregular in distribution. Tertiary ulcerations are also sometimes symmetrical, but much less so than secondary syphilides. The statement that secondary lesions nearly always affect the flexor surfaces of the limbs is incorrect; the extensor surfaces are affected nearly as often as the flexor.

Let us now take the main types of skin lesions, and compare the syphilitic with the non-syphilitic.

ERYTHEMATOUS SYPHILIDE.—The earliest affection of the skin in secondary syphilis is an erythema or roseola, which varies from a faint mottling of the skin to more or less discrete rose-coloured spots. This first appears on the loins, chest, thighs, and abdomen, and soon changes in colour to a grayish-brown. It is often so faint as to escape notice unless carefully looked for.

Diagnosis.—This is seldom difficult. Measles and rötheln are of a much darker red colour and more discrete, and are accompanied by more constitutional disturbance, and by other symptoms characteristic of those diseases. I have, however, seen one case which at first resembled scarlet fever, the rash being bright red and punctiform, and situated on the chest, abdomen, and thighs. This case developed into syphilitic miliaria.

MACULAR SYPHILIDE.—This usually forms a connecting link between the roseola and the latter secondary eruptions, such as the papular and squamous, with which they are usually mixed. The spots vary much in size and colour, changing from reddish-brown to ham colour or to grayish-brown.

PAPULAR SYPHILIDE.—The papular syphilide is usually mixed with the squamous, forming the common papulo-squamous syphilide. That is to say, the spots vary from slightly elevated papules to distinctly squamous spots, which in their full development form the so-called "syphilitic psoriasis."

Under this group come the "lichenoid" and "military" syphilides, resembling lichen and miliaria respectively

Diagnosis.—This depends on the mixed nature of the eruption, the colour and distribution, and the presence of other syphilitic lesions. Apart from these, a pure papular eruption should not as a rule be diagnosed as syphilitic.

SQUAMOUS SYPHILIDE.—As stated above, this usually occurs mixed with the papular syphilide; but sometimes the whole eruption is more or less squamous.

Diagnosis.—Simple psoriasis differs from the squamous syphilide by its distribution on the elbows and knees, and by the abundant pearly-white scales, which, when removed, leave a bright red base. The squamous syphilide, or syphilitic psoriasis, does not especially occur on the knees and elbows, but is scattered over the body; the colour is darker, and the scales less abundant and more easily removed, leaving a brownish-red stain instead of a bright red one.

CIRCINATE OR ANNULAR SYPHILIDE.—This forms a variety of the squamous form, and occurs as a late secondary phenomenon. It occurs most frequently on the trunk and face, where it forms one of the commonest kinds of the so-called "corona veneris" at the junction of the forehead and scalp.

Diagnosis.—This form of syphilide is often difficult to diagnose apart from confirmatory evidence. The text-books do not give sufficient importance to its resemblance to *tinea circinata*. Many cases of late secondary syphilis, both under treatment or without, develop a circinate eruption at first sight resembling tinea circinata. The main differences are, the colour of the syphilide, which however, is often not typical, and the clear centre with spreading edge which is more characteristic of tinea. It is also difficult to diagnose from *eczema palmaris* when it occurs on the palm of the hand, but differs from this by commencing in the centre of the palm.

Palmar and Plantar Psoriasis are varieties of the squamous and circinate syphilide as a rule, although they vary from a distinct squamous syphilide to a simple erythema, followed by some peeling or cracking of the skin and subsequent pigmentation. These lesions are comparatively uncommon manifestations of syphilis, but when they occur are very characteristic.

VESICULAR AND PUSTULAR SYPHILIDES.—A true vesicular eruption in syphilis is very rare, although occasionally met with. Syphilitic eczema, if we may use the term, is of slow progress, characterized by the absence of itching and weeping, the presence of pigmentation of the skin, and the association with other syphilides of a different type.

Diagnosis.—Practically, the only vesicular and pustular eruptions likely to be confounded with syphilis are varicella and variola.

Varicella occurring in an adult may suggest syphilis, especially when the vesicles occur on the penis, and become irritated, thereby suggesting primary venereal sores. (This occured in one case which I had the opportunity of seeing.)

Mild variola, occurring in an adult who has been only vaccinated when a child, may be mistaken for syphilis; but the absence of other signs, and the uniform nature of the eruption, should make diagnosis easy.

Ecthymatous Syphilide is a further development of the pustular, and usually occurs only in neglected and debilitated subjects. It is usually mixed with other syphilides and is a stepping-stone to the next syphilide.

RUPIA.—This is a well-known and characteristic form of syphilide, occurring usually in persons who are broken down in health or who have neglected treatment. It commences either as a pustular eruption, which rapidly becomes ecthymatous, or as a primary bullous eruption, soon becoming purulent. In either case the characteristic sharply-cut ulcers are soon developed. These become covered with scabs, which as the ulcer spreads become piled up in the well-known form of a limpet-shell. There can be no mistake in the diagnosis of these cases.

BULLOUS OR PEMPHIGOID SYPHILIDES.—Pure "syphilitic pemphigus" is almost unknown in adults. In infants it occurs as a manifestation of congenital syphilis, and usually affects the palms of the hands and soles of the feet. In adults, practically the only bullous syphilide is that preceding rupia.

PIGMENTARY SYPHILIDE.—There is apparently a true pigmentary syphilide apart from the stains left by previous eruptions. This consists of irregular pigmented spots, discrete or confluent, the skin between the spots appearing abnormally white. It occurs chiefly in women, and is usually situated on the neck.

TUBERCULAR SYPHILIDE.—This consists of convex projections, or tubercles, of the skin of a gummatous nature, occurring in late secondary or tertiary syphilis. They often ulcerate and coalesce, forming the so-called "syphilitic lupus."

Diagnosis.—This has to be made from lupus, which is, however, of much slower growth, and is usually present in childhood or adolescence, and is characterized by the presence of the "apple-jelly" deposit of tubercle in the skin.

Subcutaneous Gummata are common in late secondary and early tertiary syphilis, especially on the front of the leg over the tibia. They have to be diagnosed from rheumatic nodules, which is usually not difficult, as they seldom occur without other signs of syphilis.

Having considered the main groups of syphilides, let us briefly pay attention to a few other points concerning cutaneous syphilis.

CONDYLOMATA.—These, although coming under the head of popular syphilides, are so characteristic that they may be considered by themselves. They arise as red maculæ, occurring on parts of the body naturally moist, viz., about the vulva and anus and inner side of the thighs in women, and about the anus and scrotum in men. These spots soon become raised flat papules, covered with an overgrowth of epithelium, which becomes thickened and sodden, owing to the moisture of the situation.

Sometimes they become chronic and hard from fibrous induration.

Diagnosis.—This has to be made from venereal warts. The warts differ in being much more irregular and pedunculated when occurring in large masses. Small warts cannot be mistaken. Sometimes warts develop on the top of condylomata, forming the so-called warty condyloma, which is probably a mixture of both.

ACNEFORM ERUPTIONS.—An acneform syphilide is uncommon, and is usually mixed with other syphilides. When it occurs it differs in colour from simple acne and in the absence of comedones.

PURPURA.—Secondary syphilides sometimes become purpuric, but this is usually due to other constitutional affections.

ALOPECIA.—According to Crocker, alopecia may be due to four causes: (1) A general thinning of the hair from malnutrition; (2) a patchy alopecia resembling alopecia areata; (3) a circumscribed eruption from the implication of hair follicles in previous syphilides affecting the scalp; (4) tertiary ulceration destroying the whole thickness of the skin.

Alopecia is comparatively common in secondary syphilis, and appears to be more common in women.

The diagnosis depends on other signs of syphilis being present.

AFFECTIONS OF THE NAILS.—Onychia and paronychia sometimes occur in syphilis. The former is due to malnutrition, the latter to an extension of a squamous syphilide to the matrix, or to gummatous infiltration.

SYPHILITIC ULCERATION.—This may follow (1) cutaneous pustules; (2) cutaneous and subcutaneous gummata; (3) rupia. The ulcers are usually circular; with well-defined sharply-cut edges and a grayish base. They often extend on one side, while cicatrization takes place on the opposite side. Confluence of several ulcers causes the characteristic "serpiginous" ulceration. Gummatous ulcers from deep excavations called "crateriform."

Diagnosis.—The diagnosis from lupus has already been mentioned. Gummata differ from tubercular nodules in having a greater amount of fibrous tissue and a less tendency to caseation than tubercle. Tubercular ulcerations are more irregular, and usually have thin, ragged and undermined edges.

SYPHILIDES MIXED WITH "ITCH."—By "itch" I include both scabies and pediculi corporis. A combination of eruption caused by one or both of these, and mixed with secondary syphilides, is often difficult to diagnose, especially as they usually occur in dirty subjects. Each eruption appears to be modified by the other, and some time often elapses before the syphilide can be diagnosed.

In all cases of "itch" which do not clear up under the usual treatment, syphilis should be suspected, and antisyphilide treatment commenced. This usually clears up the dignosis, and both syphilide and itch rapidly disappear.

SYPHILIDES MIXED WITH SIMPLE SKIN LESIONS.—It sometimes happens that a patient with some simple skin affection, such a eczema or psoriasis, contracts syphilis. In such cases the resulting secondary syphilide becomes mixed with and modifies the nature of the simple skin affection, so much so that diagnosis is often difficult, and depends mainly on the results of treatment. A mixed eruption of this kind will become differentiated under antisyphilitic treatment, bringing to view the simple skin affection, which had, so to speak, been buried in the cutaneous syphilide.

A MIRROR OF PRACTICE.

ABDOMINAL PREGNANCY: LAPAROTOMY: RECOVERY.*

BY ELIZABETH BIELBY, M.D.,
Senior Physician to the Lady Aitchison Hospital for Women, Lahore.

THE following case seems worthy to be recorded. D., HINDU, was admitted at 11 P.M. on 24th February, 1898, pregnant for the third time. She stated that she had been in labour twenty-four hours. She was much deformed, could not stand erect, and when lying down could not extend her legs.

On internal examination the pelvis was found extensively deformed, both at the inlet and outlet. The true conjugate measured less than two inches. The vaginal roof was torn to the extent of two inches, and from this laceration the edge of the placenta was protruding. The limbs of the fœtus could be easily felt through the abdominal walls. The patient was very weak and exhausted, she having lost much blood.

The walls of the abdomen were cleansed with hot water and soap, and turpentine: the woman was put under chloroform, which she took well. An incision was made three inches from the symphysis pubis to two inches below the ensiform cartilage. On opening the abdomen a large quantity of blood-stained fluid escaped. The fœtus, which had been dead some time, was easily extracted with the placenta. The abdomen was washed out with 1 in 10,000 perchloride lotion; the abdominal wound closed in the usual way: a glass drainage tube left in the lower angle of the wound, and a second drainage tube left in the laceration in the vaginal roof, the vagina packed with iodoform gauze. She was very weak, and the extremities cold. She was given a hypodermic injection of ether.

For the first few days she remained weak and exhausted, her temperature remaining slightly below normal. On the fourth day the drainage tube was removed from the abdominal wound, and from that date she made a good recovery. She was discharged cured on 2nd April, being kept in hospital for the last ten days owing to an attack of bronchitis.

The question that seems difficult to answer is, How was the laceration caused in the vaginal roof? The patient informed us that she had had no treatment before she came into this hospital.

I was very ably assisted in the operation and after-treatment by my assistant, Miss JARDINE, L.M. and S. Madras. The chloroform was given by Mrs. PAUL, the house-surgeon to this hospital.

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INJECTION OF ALCOHOL IN THE TREATMENT OF GUINEA WORM.†

BY SURGEON-CAPTAIN T. H. FOULKES. I. M. S.
Salem, Madras.

I HAVE recently had a number of cases of guinea worm under my care. Although these cases seem but trivial,

* Reproduced from the *British Medical Journal* by request
† *1914.*

the [illegible] detained by them in our military hospitals for a considerable time. The idea occured to me that the time under treatment might be shortened if some hardening agent were applied to the worm in order to lessen the chance of breaking it and also to allow of more force being used in drawing it out. It seemed probable that if alcohol were injected into the worm with a sufficient amount of force the alcohol would permeate it and harden its substance wherever it came into conta t with it, and that a certain amount of shrinkage would take place which would loosen the worm from the surrounding tissues.

The first case on which trial of this process was made had been under treatment for about a fortnight, the usual course being pursued of rolling up an inch or two of worm daily round a piece of paper. I then injected alcohol into it, and allowed about half an hour for it to take effect. The remainder of the worm (about 2 feet) was then easily drawn out in a few minutes. Several other cases were equally successful, both in my own hands and in those of some of my colleagues I subsequently found that the alcohol did not always reach the farther end of the worm, and the same amount of with-drawing force being kept up, the part of the worm which was not pickled was liable to snap off. To remedy this a little fuchsin was added to the alcohol. This dyed the worm a fine red colour, and showed how far the alcohol had penetrated, further injections could then be made into the uncoloured part of the worm.

An additional advantage of this method of treatment is that if the worm by any mischance breaks and retracts, no suppuration occurs, the wound heals up, and the remainder of the alcoholised worm is absorbed like an aseptic ligature. I observed this in several cases.

Unfortunately my supply of guinea worm cases came to an end before I was able to test the treatment as fully as I could wish, so I write this as a suggestion for those who may be more favoured with cases than I have been and may like to try this process.

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UNDESCENDED TESTICLE, GIVING RISE TO DISTRESSING SYMPTOMS DUE TO SARCOMATOUS DEGENERATION, CASTRATION: RECOVERY.

By James R. Wallace, M.D., F.R.C.S.I.

Formerly Resident Surgeon to the Medical College Hospital, Calcutta.

E. C. an Anglo-Indian, aged 25, short, thick-set, and of good constitution, was born a crypt-orchid, his left testicle having remained undescended from birth. There was always, as long as the patient could remember, a "lump" in the left groin. It had remained absolutely painless till about four months previous to his consultation with me, when he observed occasional acute pains in the swelling and a frequent sense of nausea. In a few weeks the pain became worse, the swelling more enlarged, and there was persistent vomiting, which confined him to his bed for a few days. The symptoms subsided, but with the resumption of his duties, there was a recurrence of suffering. When I first saw him on the 22nd of March, 1898, the lump in the groin was hard, tender and non-fluctuant. The slightest pressure upon it induced nausea. Sulphate of magnesium with tartar emetic in small doses internally, the application of belladonna and glycerine to the swelling, with rest in the bed, gave complete relief, and for three weeks the patient was able to go about his work. On the 25th of April he had a recurrence of all the bad symptoms above described, and finding that the slightest exertion was attended with a return of suffering, he was advised to undergo castration of the undescended and apparently diseased testicle.

Accordingly on the 29th of April he was [illegible] under chloroform by Dr. W[illegible] Cousens, and I cut down upon the testicle, [illegible] the bulk of the dissection with the handle of my scalpel. The main vessels leading to the tumour were ligated and the mass cut off above the ligature. All bleeding points were quickly secured by pressure forceps, so that the patient did not lose more than half an ounce of blood during the operation. The wound cavity was insufflated with iodoform and boric acid, a drainage tube was inserted, and the incision closed by horse hair sutures. Boric gauze dressings were applied and changed on the second day, when also the tube was removed. The subsequent progress was most satisfactory. During the operation I had the skilful assistance of Dr. Arnold Caddy, [illegible] B. Eng.

Remarks.—This case is most interesting from the diagnostic value of the reflex testicular vomiting as the characteristic sign of the disease present. On cutting into the testicle after removal, it was found to have undergone purulent inflammatory change, and as the structure of the mass seemed very much altered pathologically, it was sent to Surgeon-Major J. F. Evans, the pathologist of the Calcutta Medical College, who reported on it as follows:—"I find the tumour which you sent me on the 29th April to be a round-celled sarcoma, with practically no trace remaining of the glandular structure of the organ in which the new growth arose. There is some evidence of inflammatory change and of hydrocele having occurred prior to the formation of the growth" Primary sarcoma of the testis is rare in so young a subject.

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IMPOSSIBLE EXTRACTION OF PLACENTA: DEATH FROM SEPTICÆMIA; MISUSE OF ERGOT.

By Alf. McCabe Dallas, L.M., L.R.C.P. & S.,

Assam.

A native woman, sparsely built, with a smallish pelvis; and whose age was about 22 years, gave birth to her first child at 6 A.M. on the 9th August; the child was full term and born alive. By 10 A.M the placenta had not come away and a native doctor was called in, and without any particular enquiry he began the administration of ergot and up to about 4 P.M had given some 5 or 6 doses of 40 minims each of the liquid extract. The placenta still remaining intact. I was sent for, on arrival I found the woman in a state of fear, rapid pulse and breathing, with temperature of about 106°, the labia were fearfully swollen and lacerated and the pain agonising I immediately put her under chloroform with a view to extracting the placenta, but to my disappointment found the soft parts within so terribly swollen, hot and inflamed, that with difficulty I could only pass my forefinger towards the uterus which was contracted as hard as a rock. After an hour's careful manipulation I had to abandon the effort and propose a Porro's operation which was rejected. The woman was then placed under antiseptic treatment, and the greatest attention paid her. The swelling never subsided and no opportunity presented to give a chance of removing the placenta. The result was as I had anticipated, death after a week from septicæmia. There is no doubt that extensive adhesions prevented expulsion, and a large child caused all the injuries, but the difficulties brought about, were in a great measure due to the misuse of ergot, without proper examination in the first instance. The interest attaching to the case is to inform young inexperienced practitioners of the danger of not satisfying themselves, that retention of the placenta is due merely to inertia, and that no other obstacle exists. Even in a natural confinement some men seem to think a dose of ergot at the end is a *sine qua non*, when as a matter of fact in my opinion it ought only to be given as a distinct necessity.

THE

Indian Medical Record.

1st September 1898.

THE ROYAL ARMY MEDICAL CORPS AND THE INDIAN MEDICAL SERVICE.

The long expected Warrant is now *un fait accompli*, and there is certainly nothing in its terms to throw any light upon the tardiness with which it made its appearance. Many who were somewhat puzzled and uneasy over the delay, persuaded themselves that it was due to the number of minor details and varying interests that had to be considered; if such was the case, the difficulty has been overcome by the simple method of letting them shift for themselves, for in the present Warrant there is nothing to show that they ever existed.

This course may have been adopted owing to the urgent necessity of getting the Warrant out as quickly as possible; the depleted state of the Army Medical Staff was such that it was only with the greatest difficulty the work could be carried on at all, and above all things it was necessary to get a sufficient number of men to compete at the August examination.

To this cause we attribute the issue of the Warrant in its present form, which we believe to be unprecedented in its incompleteness

It merely states that it has been "deemed expedient to alter in certain respects the conditions under which the officers employed upon the medical duties of Our Army are at present serving", that, "the officers below the rank of Surgeon-Major General serving in Our Army Medical Staff shall be formed into a Corps, together with the warrant officers, non commissioned officers, and men of Our Medical Staff Corps"; that, "the designation 'Medical Staff Corps' shall be abolished and that the Corps formed as above mentioned shall be styled "The Royal Army Medical Corps" "The following alterations will consequently be made in the ranks of the Medical officers of Our Army. Present Rank, Surgeon-Colonel, new Rank, Colonel, and so on to Surgeon Lieutenant with the new rank of Lieutenant" The Warrant bears date, the 23rd June 1898.

Such is the Warrant which has been so long fought for, and the battle has not been without bitterness on both sides. That it ushers in a new and better state of things for the officers of the new Corps there can be no doubt, and we heartily congratulate them on the successful termination of their long struggle.

This Warrant is free from the juggling with terms and the carefully constructed loopholes for rendering it a dead letter which disfigured the previous one, and made it, and justly so, an object of suspicion from its first inception. Every thing is fair and above board, all is clear, plain, and simple, as might have been expected from a statesman of Lord LANSDOWNE's grasp and ability.

The obstructives in the War Office have shot their last bolt, there are here no traces of their meddling; the main position, the question of rank and titles, has been freely and ungrudgingly granted, and almost all the title of Royal has been added by the gracious good will of Her Majesty, to that all cavillers must now perforce be silent.

One slight concession has perhaps been made to the opposition, by the retention of the title of Surgeon-General, but for this, good reasons have been given, and we believe that the compromise has been accepted almost without demur We can however see nothing in the arguments that have been advanced for refusing to give the senior medical officers in the Army, titles in conformity with those borne by their juniors, and we think that it would have been better to have replaced the title of Surgeon-General by that of General, *tout simple*

As we had foreseen, no mention whatever is made of the Indian Medical Service, and the Warrant in no sense applies to it. It is stated that the Indian Government has been asked to submit proposals for dealing with it, but what shape these proposals will take, it is quite impossible to forecast.

We have seen it stated in some well informed papers that the Indian Medical Service will also be formed into a Corps; but how this is to be done, passes our comprehension. A Corps presupposes men as well as officers, and where the men are to come from to form the Indian Medical Corps, we do not know.

Two things are certain, first that the title of Royal will not be granted and second that no Corps will be formed.

By some it is confidently stated that according to the precedent of the former Warrant, this Warrant in as far as it relates to the combatant titles, will speedily be extended to the Indian Medical Service, of this we have the gravest doubts It must be remembered that the extension of the previous Warrant introducing the compound titles to the Indian Medical Service and to the Veterinary Department, was generally looked upon as a small piece of spite on the part of the War Office authorities, like the introduction of the ridiculous title of Brigade-Surgeon Lieutenant-Colonel, it was simply a method of diminishing the value of the Warrant to the Army Medical Staff.

Neither the Indian Medical Service nor the Veterinary Department had ever felt the want of titles, they had never made a grievance of not having them, but the Warrant was gratuitously extended to them, and why? because it was known to be a worthless sham.

No argument from analogy will hold between the Royal Army Medical Corps and the Indian Medical Service. The conditions under which they serve are totally different.

In the existence of the Medical Staff Corps, a body that has always been commanded by them, the officers of the A. M. S. had their strongest claim to combatant titles, their claim was in fact logically indisputable. With the exception of India, the Corps serves all over the world, wherever British soldiers are found: it consists of a large body of warrant officers, non-commissioned officers and men, specially trained in all the duties pertaining to hospitals and nursing, both in peace and war.

The unification of the officers who held command, and of the men who were commanded, into a single Corps, was the only logical sequence of such a system, and the only cause for surprise, is that it was not carried out long since.

It is obvious that the Indian Medical Service can put forward no such claim, and there is no reason whatever that

what has been done in the case of the Royal Army Medical Corps, a purely military body, should be equally applicable to the half military and half civil, Indian Medical Service.

The fact that they have never asked for these titles, and presumably have never felt the want of them, and that plenty of candidates are always forthcoming, places them more on a footing of comparison with the medical officers of the Navy, who do not share in the advantages of any of these Warrants.

At any rate it is a question that is entirely in the hands of the Indian Government. We do not believe that its decisions will be in any way influenced by what has been done for the sister Service, the whole matter will be opened up from the beginning, and argued out on completely different lines.

That the organisation of the Indian Medical Service is clumsy, and that its re-organisation would long since have been taken in hand, had there been any one capable of tackling such a difficult question, is known to all.

The opportunity has come and the attention of the Indian Government has now been peremptorily called to the necessity of doing something, let us hope that it will not be lost.

The whole machinery of the Indian Medical Service is one mass of anomalies, it is a most complete system of the most glaring abuses, and as an agency for advocating and advancing reform and scientific progress it is totally impotent.

From the Director-General down to the Provincial administrators, every official is a mere puppet in the hands of the Civil Service secretaries. Witness the disgraceful incompetence of many of the recent educational appointments in our Medical Colleges; the unsatisfactory working of almost every public hospital: the inefficiency and inadequacy of the service rendered by state-paid medical officers, directly traceable to their being permitted to engage in highly remunerative private practice.

Witness the absence of control and inspection of the medical work done in our hospitals, a dereliction of duty which is so notorious that it has attracted the attention, and drawn down the denunciations of the public press over and over again

Our Medical Students are imperfectly trained how much, or rather how little time is given to clinical and other forms of practical teaching; and how small a measure of the time of hospital physicians and surgeons is devoted to the welfare of the sick.

Our Medical examinations and diplomas are in a chaotic condition; there is no systematic instruction in Hygiene in our Colleges, and no diploma in public health in the educational system of our universities. Madras has *just* taken a proper step in this matter.

We are even without a Poisons Act, and a system of Medical Registration!

The disgraceful condition in which we find ourselves in these matters, is entirely due to the absence of power and authority in the Indian Medical Service, and its complete subordination to other departmental administrations.

To whom are we to look for reform, if not to the Director General of the Indian Medical Service, the official adviser of the Government in all medical matters? To keep Medical Education in India abreast of the times, must be considered the highest of his functions, but of late years the officials occupying this position have signally failed in its exercise.

We cannot wait until another Sir RONALD MARTIN arises. The whole service is decadent; it has sadly fallen off from the glorious traditions handed down to it, its day is past, it is antiquated, no addition of military titles will renovate it, nothing but a clean sweep will suffice, and in the conviction that this will come, if not at once, yet within a measurable time, we rest contented.

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THE INDIAN MEDICAL CIVIL SERVICE AS A WAR RESERVE—A HUGE SHAM.

We believe it is argued that it is necessary to support the large *civil* establishment of the Indian Medical Service as a *war reserve*, if so there can be but little doubt that it is the most expensive war reserve in existence, and the Government must be weak indeed that cannot devise some more economical scheme.

In the meantime, while not required in our little frontier wars, this wonderful reserve is employed upon the most heterogenous duties. We have holders of professional chairs at our universities, many of them remarkable for little but their youthful appearance, Heads of Colleges and Hospitals; Sanitary Commissioners, Chemical Examiners; Civil Surgeons etc etc., and in the performance of all these duties, with the exception of managing a large and lucrative private practice, they have for the most part signally failed

The medical work done in India points relentlessly to the fact that the government has not had good value for its money. By its own acknowledgement the whole system of Medical Education, whether in the universities or schools, all in the hands of the Indian Medical Service, is a failure Of so low a standard is the education, that the government cannot depend on the qualified men turned out, to even look after plague cases, while the Calcutta Health Officer has to ask, that Sanitary Inspectors be imported from England!

The maladministration of our large civil hospitals has reached such a scandalous state, that official notice has had to be taken of it, in at least one instance, and reforms introduced. In all questions of medical progress or research, we have remained stagnant or have drifted for years, hardly can one lay his finger on a decent piece of work that has been turned out, while the very air is thick with problems of the greatest interest and importance.

There can be no doubt that the Government is not getting good value for its money, and it is time that its eyes were opened and that some other system was introduced.

No progress can be hoped for as long as men who are heavily paid for the performance of other duties, devote the greater part of their time to making money by private practice.

The men who usurp and monopolise the practice in our large cities and towns and in our choice hill stations, are not men who have succeeded by their own individual endeavours. They may be good, they may be the reverse; they may succeed by their merits or in spite of their demerits, but in any case success is assured to them, for they are heavily subsidised, and have the prestige of an official position.

To assert that they are always the best men, is as absurd as it is untrue. If they are the best, they will have plenty of scope for their energies, and occupation for their spare time in consulting practice, to which we should like to see them limited.

Either the Civil Surgeon or the College Professor of the I.M.S. has enough official work to do, or he has not. If he has, then by spending some three-fourths of his time on private practice, he is defrauding his employer. If he has not, then the government is to blame for wasting the tax payers' money in paying a man for being idle.

When the question of the necessity for the existence of a civil surgeon is raised, the number of his official duties put forward by the authorities who are responsible for his appointment, would lead one to believe that he was much overworked But how are these official duties performed?

Take the one question of sanitation The civil surgeon is *ex-officio* responsible for the sanitation of his station, and we would like to know how many hours a month are devoted on an average to these important duties, and how many reports are made on the subject in the year

Sanitation throughout India is of course in a woefully backward state, but in the choice hill stations, one would naturally look for and expect to find something better, but common report says that these choice health resorts are as insanitary as they well can be, and are only saved by the cleansing influence of the annual monsoon

At the present moment, Ootacamund, one of the fairest spots in the Empire, is a hot-bed of enteric fever We will not be rash enough to pretend we can place our finger upon the cause, but what appears to be certain is that the lake is in a filthy and insanitary state No doubt a lavish outlay will now be forthcoming to cleanse it but what we would like to know is, what was the sanitary officer thinking of to let it to get into such a disgraceful state? Filling his pockets with an extra income from private practice and leaving his sanitary duties go to the devil of course!

If the whole of the civil side of the Indian Medical Service was wiped out to-morrow, there would be suitable men forthcoming to fill every vacancy twice over The India of to-day, is not as it was formerly, and the Government has seen by its plague importations, the readiness with which medical men possessed of the best diplomas and credentials, are now-a-days prepared to face the climate, and rush out to India for work, even when a fatal disease is added to the exaggerated terrors of a tropical climate.

Suppose this was done gradually, what an immense saving it would be to the overburdened finances of India It is an error to assume that India cannot support its own doctors. The country has passed out of the stage in which it required to be dry-nursed. Let the Government put its money into its pockets and call for volunteers.

The present is no doubt an opportune time for taking some steps in this direction, when the Government has been called upon to formulate some proposals for dealing with the Indian Medical Service, in connection with the new Warrant changing the Army Medical Staff into the Royal Army Medical Corps.

The [illegible] of the commissions [illegible] granted under this Warrant to the Civil side of the Indian Medical Service would only be ridiculous, and would add to the many anomalies that already exist.

Let us have a Government Military Service by all means, but for a Government *Civil* Service AS A WAR RESERVE the necessity no longer exists, if it existed at all.

SUBSIDISED DOCTORS AGAINST PRIVATE PRACTITIONERS. AN UNJUST MONOPOLY.

WHEN the private practitioners of Mussoorie appealed to the Government to be relieved from the unfair competition to which they were subjected, by the Civil Surgeon, a paid official of the Indian Medical Service, being permitted to engage in private practice, some stir was caused and the matter was freely commented upon in the lay papers.

Some strongly backed up the appeal, while others as might have been expected, skirted or passed lightly over the thin ice, and more or less avoided the discussion of a subject, the merits of which they clearly saw would not be upon their side

As however time passed on and no satisfactory result appeared, the Council of the Indian Medical Association thought the matter of sufficient importance to engage its attention, and after carefully considering it in all its bearings, addressed on the 16th December 1897, a letter to the Government of the North West Provinces and Oudh, asking for the removal of the just grievances of the Mussoorie practitioners, by the prohibition of private practice to the already well-paid and overworked Civil Surgeon

The official reply dated the 28th February, not being considered satisfactory, amounting as it did to a simple *non-possumus*, another letter dated the 21st May 1898, was addressed to the Government of India setting forth their grievances and asking for redress True to its traditions of non interference in the matter of State monopolies, the Government of India has now intimated to the Council of the Indian Medical Association, that "it does not find reason to interfere with the system," thus affording another proof of the impotence of the present methods of medical administration in India

The importance of the question raised is by no means confined to the limited interests of the Mussoorie private practitioners, however much these interests may be and undoubtedly are affected This is but the straw which shows the way the wind blows and foretells the advent of a storm

The question penetrates to the core, all the most vital interests of Medicine in India It affects not only the position of every private practitioner in the country, but also the prospects of all who may contemplate settling in this part of the Empire. It is closely bound up with the matter of reform and improvement in Medical Education; for with the limited openings that exist at present, there is nothing to stimulate progress, or to encourage our students to seek for the higher qualifications and to crown their student career with a British qualification, after a further course of study in the British Isles.

What prospect of advancement; what hope of success is there at present to compensate men for the extra labor and expense that this involves!

This is not as it should be, it leads to stagnation. Healthy and fair competition is good in every walk of life, but the desolating effect of the black system which prevails in medical matters in India, spreads its evil influence far and wide.

Not only is there no opening for those who are born and educated in this country, but English, Scotch and Irish medical men are shut out, as though it were an alien land under a foreign rule.

Owing to their innate spirit of restlessness, enterprise, and adventure, and none the less to the congested state of the profession in England, graduates and diplomates from that country are continually pushing out and establishing themselves in the furthest and often the most unlikely parts of the realm. India alone closes her door, and to him who turns his eyes in this direction, the warning is given, there is no opening in India ; the Indian Medical Service have all the practice in their own hands.

The Indian Medical Service may indeed congratulate itself upon the success which has followed its efforts to keep India as its own special preserve, and in these efforts it has been ably seconded by the Government of India.

As to who have been the gainers in the transaction, there can be no doubt, for it must be patent to every one that it is *not* the Government.

No one can doubt that the permission to engage in unlimited private practice is a strong temptation to perform ordinary routine duties in a perfunctory manner, and that the temptation is in many cases too strong to be resisted we constantly learn from complaints and reports in the daily press.

It is further an anomaly of a most glaring and unfair description, that of all the officials in the service of the Indian Government, the Indian Medical Service should be the only service that is permitted to augment its income by the performance of purely private work. Such an extraordinary distinction as this is most invidious.

Whatever reasons may have existed in the past for this condition of things, it must be clear to anyone who surveys the ground impartially, that they exist no longer. The time is now fully ripe for reforms and we are glad to think they cannot be much longer delayed.

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THE COLLINS-UZIELLI CASE. ITS LESSONS AND ITS WARNINGS

It is unnecessary to expatiate upon the amount of publicity which has been given to this case, in which Dr. COLLINS was sentenced to seven years penal servitude for causing the death of Mrs. UZIELLI in the attempt to produce criminal abortion, or to raise the question of the advisability of this publicity from the point of morals or expediency.

The matter is one of interest and importance not to the medical profession only, but to the general public as well. In this respect it is two sided, and the lessons and warnings it conveys are for both sides alike.

Upon no point are the English papers more unanimous than in revealing the extraordinary prevalence of the practice of procuring abortion at the present day, some go so far as to say that amongst a certain class it has become quite a custom, and that to say nothing of the moral side of the question, its heinousness as a criminal offence, is entirely lost sight of.

Others point to the wide dissemination of advertisements which promise, in scarcely veiled language, a safe and speedy means for getting rid of the products of conception, and accentuate their remarks by the statement, most discreditable if true, and we have no reason to doubt it, that the so-called religious papers, are the worst sinners in this respect.

All this seems to point to a sadly lax state of morals, to a change in the mental and moral standpoint with regard to certain duties and responsibilities, to a process of evolution which has already undergone a considerable amount of development, and which may have to be seriously reckoned with in the future.

But these are questions of general philosophy with which it is not our proper province to deal.

On the behalf of the erring practitioner, it must be remembered that in these crimes,it is one of the general public who is the originator, the doctor is tempted, and so common is this form of temptation, that we see it stated that there are few practitioners who at some time or other are not approached on the subject. Who can be surprised that some are weak enough to yield to the eager supplications of their tempters ?

The medical profession cannot, however, follow the tendency of the times in this respect, a higher standard of morality is demanded of it, and to its credit be it said, that amongst the vast majority, the old Hippocratic precept, "I will give no deadly medicine if asked, nor suggest any such counsel," is as binding as ever.

Such cases as these, undoubtedly cast a certain amount of discredit upon the whole professional body, and it is surely a sad sight to see a man prostituting his noble calling, his knowledge and intellectual attainments to such ignoble ends.

That it is frequently done with impunity there can be no doubt, the difficulties in the way of obtaining a conviction before a Court of law are enormous. Where the operation is successful no evidence is as a rule forthcoming, if it were, the woman who sought the abortion would take her place in the dock as an equal offender with him who attempted to produce it.

If a conviction could be obtained under these circumstances it would probably do more to check the unnatural custom, than all the homilies in the world.

That women should be willing in this way to repudiate all their natural instincts and run all sorts of risks to avoid the duties of maternity, is perhaps but one of the signs of the times. It is an unhealthy sign, however, and one that demands the stoutest repressive measures. It does not redound to the credit of our much vaunted progress and civilisation that what was once the highest pride and the paramount duty of woman, should now be looked upon as a bore, or as something to be avoided at all costs.

The legal aspect of this case has a special interest of its own, owing to the Attorney-General's statement of the law in its application to it. According to the letter of the

English law it appears that any one who causes death while in the commission of felony, no matter how accidently and unintentionally the death was brought about, is guilty of murder.

This construction has however been modified or set aside from time to time by the highest legal authorities. It only wanted Sir RICHARD WEBSTER'S dictum to render it completely obsolete.

In the COLLINS' case he laid it down as the law, that if the act by which the death was caused, was "not in itself of necessity dangerous to life," then the jury might find a verdict of manslaughter and not murder.

Surprised as everyone was at the time, by what appeared to be a complete subversion of the law of the land, Sir RICHARD WEBSTER has since shown by his reply to a question put on the subject by Mr. PICKERSGILL in the House of Commons, that he intended to stick to his guns, and meant every word he had uttered. Such being the case his statement may now be considered to be a part of the English criminal law.

Under these circumstances it is evident that an attempt to procure abortion, which results in the death of the subject, can never again be reckoned as murder, and accordingly that the verdict of manslaughter found by the jury was the only one open to it, the offence being proved.

That to this, the jury should have thought fit to add a recommendation for mercy, has caused a considerable amount of not unnatural surprise in many quarters. Upon what grounds was the recommendation made? There was no doubt as to the guilt of the accused, he had no blameless past to be urged in extenuation. Far from it, he had actually on a previous occasion been convicted of felony, and it was notorious that for years he had been carrying on the infamous trade of procuring abortion.

That under such circumstances the jury should have thought fit to recommend him for mercy, must depend upon different causes.

Here was a case of the worst possible kind, in which far from there being extenuating circumstances, the accused was an old offender, and yet although the old fashioned charge of murder has been modified and softened down to manslaughter, yet the jury are not satisfied, they go one better, and make a recommendation to mercy.

In doing so, the jury appear to have merely voiced the feeling of the hour, in opposition to the antiquated doctrine of the law; the feeling seems to make plain the obnoxious fact, that the teachings of certain modern would-be-philosophers and supporters of what is generally spoken of as Malthusian doctrine, have not fallen upon barren ground, and that the rank growth has flourished apace.

That the sinfulness and anti-Christian nature of these actions is forgotten, that greater laxity prevails, and that people are demanding for themselves a greater range of individual freedom and to question the right of the law to interfere in matters purely personal to themselves, all point to a degenerate state of society.

In the admirably balanced and justly merited censures of the judge, we are glad to note that there are no signs of pandering to these immoral doctrines and tendencies.

We repeat, that the crime of procuring criminal abortion, is one against which the whole medical profession must set its face, and condemn in the most unqualified terms.

It is sad to see a career like Dr. COLLINS', marked as it was at the outset by the most brilliant promise, brought to a shameful conclusion in the dock and the felon's prison. By what steps he was led to depart from the path of rectitude and to embark upon the downward path of crime, we know not. Pecuniary difficulties probably had their share in his destruction.

If so, he appears to have obtained no relief, for although he is represented as having been earning large sums for years, his conviction found him without any resources. The picture suggested is a dark one. The career of crime brings with it its own Nemesis. The criminal is marked and tracked, some of his secrets are known, and over his head daily hangs the threat of exposure. The felon stalks along, but behind him is the vampire shadow of the blackmailer.

The case is likely to lead to steps being taken to strengthen the position of the General Medical Council. If so, from much evil some good may result.

When convicted of forgery, Dr. COLLINS' name was removed from the *Register*, but the Council that had the power to do this, had no power to deprive him of his university degree of Doctor of Medicine.

We thus have the curious anomaly of a man deprived of his legal status as a medical practitioner. He cannot recover fees in a court of law and he cannot sign a death certificate, yet on the other hand he has a university degree, he is a doctor of medicine and apparently is as free to practice his profession as ever.

It is to be hoped that some means will be found, so that the General Medical Council may have the power, when it strikes a man's name off the *Register*, to once and for all put a stop to his practising medicine as well.

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CIVIL ASSISTANT SURGEONS AND THEIR NEWLY GAZETTED PROSPECTS.

As far back as 1890, the *Record* began its crusade for reforms and improvements in the Local Medical Services. The first instalment of reform was granted to the Military Assistant Surgeons, but it partook of a purely phantom nature, it offered a shadowy enhancement of their status, but left the substantial grievance of their stinted salaries untouched. Now we have the second instalment of reform, if it may by a stretch of imagination be so styled, given to Civil Assistant Surgeons.

The following is the telegraphic summary of the changes which Government has been most graciously and generously pleased to make:—

A Resolution regarding the future position and prospects of Civil Assistant Surgeons is published in the *Gazette of India*. All have been consulted and the cadre of Assistant Surgeons is now divided into four grades, *viz.*, Rs. 100, 150, 200 and 300 a month. They will not in future be placed on unemployed pay, except as a punishment. This change, however, does not affect Madras, Bombay

Burma, or the Central Provinces, where the system is not in force. Promotion to the senior grade will be by selection without examination. Nineteen Civil Surgeoncies, *viz.*, five in Madras and Bengal, three in the Punjab and one in Bombay, the North-West Provinces and Burma, are to be filled by Assistant Surgeons and it is hoped to increase this number to 28. The introduction of the new arrangements is subject to the express condition that Municipal and Local Funds shall pay in full measure for the services of Government Assistant Surgeons attached to Municipal and Local Fund Hospitals. Contributions payable to Government by those local bodies for the cost of the services of an Assistant Surgeon, must therefore be raised in provinces where such contributions are calculated with reference to pay only, and do not include the consideration of leave allowances and pensions. The Governments of Madras and Bombay are requested to place Assistant Surgeons on the same footing as those elsewhere, as soon as such steps are practicable.

The Indian Medical Association has made two definite appeals to Government in connection with the grievances of Civil Assistant Surgeons and their scope may be gauged by the annexed statement extracted from the last appeal:—

"I. That Civil Assistant Surgeons be designated Assistant Civil Surgeons, and that their service be merged into the present Uncovenanted Medical Service under the title of the *Indian Civil Medical Service* :—

II. That such Service be graded as follows :—

(*a*). Civil Surgeons (as at present graded in the Uncovenanted Medical Service).

(*b*). Senior Assistant Civil Surgeons. A new grade, promotion to which will be made after 20 years' service, for special merit.

(*c*) First Grade Assistant Civil Surgeon.

(*d*) Second Grade " "

(*e*) Third Grade " "

3. That the grade salary and pension be arranged as follows :—

Tabular Statement showing Grades, duration of Service, Salary and Pension in each Grade, together with Allowances of the Indian Civil Medical Service.

Grades of I. C. M. S.	Service for Grade.	Salary.	Pension.	Allowance.
1. Civil Surgeon * ..		Rs	Rs.	
2. Senior Assistant Civil Surgeon.	(Special)	800	250	The same as Civil Surgeons (U.C.M.S.) when in officiating charge. Grade allowances same as the Subordinate Judicial Service.
3. First Grade Assistant Civil Surgeon	25 years	400	200	
	20 "	350	175	
4. Second ditto.	15 "	300	150	
	10 "	250		
5. Third ditto.	5 "	200		
	....	150		

* Present Uncovenanted Civil Medical Service, as it stands.

It will be observed with surprise and regret that the Government has behaved most shabbily with this class of medical officers. The *Gazette* Resolution does not touch the question of status, a very sore point with these officers, nor does it make any tangible increase to their salaries and other allowances. It is quite true that the Government declares that 19 Civil Surgeoncies will now be open to Civil Assistant Surgeons, but we all know that this order will be treated as a dead letter, that with the usual limitations of that red-tape term, "*officiating*," the real work will be ground out of them, but they will get nothing but starvation wages in return, and to crown the delusion which this change implies, these unfortunate pseudo-Civil Surgeons will be transported to some outlandish malaria-stricken holes, where they will rapidly die off like rotten sheep. In short we may state these long suffering servants of the State who asked for bread, have been offered a stone. We shall not pretend to say that we are thankful to the Director-General and others in authority for the niggardness with which they have treated the prayers and entreaties of our Civil Assistant Surgeon brethren, for we have but to state that the pittance offered in this *Gazette* Resolution to a hoary headed medical officer of 30 years' approved service, who is the possession of a University degree, namely, Rs. 300, is lower than the salary which the Government pays to the most junior Surgeon-Lieutenant of but one days' service, who may chance to be the possessor of those glorious academic qualifications known as the Edinburgh D. Q. and the L. S. A. of London.

This conduct of the Government, harsh and ungenerous as it is, should only urge the members of the local medical profession and the local medical services to more united and determined action in defence of their interests. The medical administration has played its trump card and it exposes a hand that is as ungenerous as it is unjust, and this policy now demands a counter movement that will expose the failures of our rulers in this country, to those who are in real authority in England.

COLLES' FRACTURE OF THE RADIUS.

THE old Bond splint continues to hold first place in the treatment of this fracture in most of the Philadelphia dispensaries. At the Polyclinic Hospital, in Dr MORTON'S clinic, the splint is used without the leather sides. In this clinic, after complete reduction is made, the arm is placed on the Bond splint, with a pad, made of lint, under the lower end of the upper fragment, and another on top of the lower fragment. The arm is dressed every other day, and the wrist and all the finger-joints are put through their various motions while the bone is held firmly at the seat of fracture. The movements of the hand and fingers are started at the second dressing, that is the next after the primary dressing. The splint is usually removed between the third and the fourth week, and after this simply a muslin bandage is applied for about a week or ten days, during which time the patient comes as often as before, in order that massage may be used. From the beginning the patient is instructed to move the fingers as much as the splint and bandage will permit. Occasionally, when there is a tendency to stiffness of the part, the hot-air oven is used in conjunction with the massage The rapid return of function under this treatment has been most satisfactory.—*New York Medical Record.*

COMMENTS AND NEWS.

THE USE OF QUININE IN MALARIAL HÆMOGLOBINURIA.

DR. ALBERT WOLDERT of Philadelphia discusses this question in an interesting paper in the "Medical News."

Many physicians in Greece and Italy believe that there is a form of hæmoglobinuria that is caused by quinine, and BASTIANELLI who has recently brought forward the subject quotes TAMASELLI, SPYRIDON, CAPELLIS and PASQUALE-MUSCATE having recorded cases of hæmoglobinuria, occurring during an attack of ague, caused by quinine.

KARAMITZA mentions a case in which hæmoglobinuria could be produced in a student by 5 grain doses of quinine; PLEHN, RICHARDSON and others hold the same opinion.

BASTIANELLI divides the spontaneous hæmoglobinuria into three classes: (1) Those in which the blood contains estivo-autumnal parasites or young hyaline forms, (2) those in which the blood contains only crescentic or ovoid bodies and pigmented leucocytes, or, (3) those in which the blood examination is entirely negative and the only evidence of there having been an infection is the presence of endothelial perilobular melanosis. Here the attack of hæmoglobinuria does not depend upon the presence of parasites, but begins without apparent cause.

BASTIANELLI finally takes up the quinin hæmoglobinurias, and asserts that (*a*) It occurs only in individuals in whom a malarial infection has been recently present; (*b*) the hæmoglobinuric attack is constantly produced every time quinin is administered, whether it be given while the malaria is in progress (TAMASELLI), or when the malarial infection has run its course (MURRI); (*c*) extremely small doses of quinin are capable of bringing on an attack; (*d*) quinin hæmoglobinuria has been observed in patients who have already suffered from hæmoglobinuria (MURRI).

The *quinin* hæmoglobinuria he divides into two forms: (1) That occurring during the paroxysm, or paroxysmal hæmoglobinuria, and (2) postmalarial hæmoglobinuria. In these varieties, through a considerable length of time quinin will produce hæmoglobinuria whenever it is administered. The course to be pursued depends upon the blood examination. If hæmoglobinuria occurs during a malarial paroxysm and parasites are found in the blood, quinin should always be given. If, however, no parasites are found, either as a result of previous administration of quinin or on account of the spontaneous disappearance of the organisms, BASTIANELLI says that quinin should not be given, owing to the possibility that the paroxysm may have been due to its previous administration.

Some interesting cases are quoted in which large doses of quinin have been given without producing hæmoglobinuria. GUERCENT cites a case in which a lady became deaf, dumb, and blind from taking 10 drams of quinin sulphate within the course of a few days. GUAICOMINI spoke of a case in which a man took 3 drams of quinin and who only suffered from symptoms of depression of the heart and nervous system. BRIQUET records a death following the enormous dose of 55 drams taken within a period of ten days.

LAVERAN quotes from Baillio, who reports the instance of two soldiers, who, intending to take a purgative, but instead of taking sodium sulphate, by mistake, drank a solution of quinin, so that each received about 5 drams of the salt. Half an hour after taking the medicine the men were seized with cramps in the epigastric region and with vomiting. They presented paleness of the face, dilation of the pupils, hurried respiration, clammy extremities, a small, irregular, and slow pulse, sometimes hardly perceptible, together with ringing in the ears, and symptoms of syncope. In the case of one, the symptoms gradually disappeared, the other died of heart-failure.

Varieties of Hæmoglobinuria.—Possibly the most logical classification of hæmoglobinuria is made by OSLER, as follows: (1) Paroxysmal hæmoglobinuria, (2) toxic hæmoglobinuria. The latter includes those due to (*a*) carbolic acid, (*b*) chlorate of potash, (*c*) naphthol, (*d*) carbon dioxid, (*e*) poisons of infections fevers such as scarlet fever, yellow fever, typhus fever, and malarial fever.

In the infectious fevers, hæmoglobinuria is caused by the action of toxin on the red corpuscles, causing disintegration and the setting free of hæmoglobin.

DAWSON and DAVIS consider that hæmoglobinuria results from a renal congestion.

In malarial fever, however, it is the spleen and liver and not the kidneys which are chiefly affected.

The morbid anatomy of the kidney in malarial hæmoglobinuria shows a high grade of congestion due to some poison in the system.

It is suggested that malarial hæmoglobinuria is caused by the toxin secreted by the plasmodium.

Amongst American physicians the opinion is generally held that the hæmoglobinuria seen in connection with malaria is not caused by quinin, and that on the other hand quinine is the proper remedy to give in such cases.

Dr. ASHURST stated that he had never seen a case of hæmaturia (hæmoglobinuria) produced by quinine and that he would give quinin for this condition. ANDREW has seen hæmoglobinuria produced in some cases of malarial fever in which quinin had not been taken, and states that it disappeared upon the administration of this remedy. OSLER says that the condition does not exist in the latitude of Baltimore. THAYER, also expresses the same opinion.

DOCK (1892): "The treatment of malarial hæmaturia, which also includes hæmoglobinuria, belongs really to the treatment of acute and chronic malarial poisoning. No American physician at the present time has any doubt about the propriety of giving quinin in these cases, so that a consideration of that vexed question is unnecessary."

DAWSON (1896): "The treatment of the different forms of malarial hæmaturia may vary somewhat as to detail, but our first effort should be to bring the patients as rapidly as possible under the influence of quinin in some form.

THE VALUE OF EXPERT TESTIMONY IN MEDICO-LEGAL CASES FROM A MEDICAL STANDPOINT.

DR A W. HENEKELL has recently discussed this subject in the *Buffalo Medical Journal*, and has come to the conclusion that something should be done to improve the conditions under which expert medical evidence is given in the United States law courts which by the way seems to be much the same as in England.

According to Dr. HENEKELL there are two ways out of the difficulty. (1) The appointment of a commission by the court; as we believe is done in France. (2) The appointment of a Commission of experts to receive the contentions of the experts of each side, the commission to decide and present their finding as a fact, not subject to review, to the jury.

Dr. HENEKELL prefers the second alternative. Some note worthy expressions of opinion on the value of expert evidence under the present system are given.

"Lord CAMPBELL stated, in the Tracy Peerage case, that 'skilled witnesses come with such a bias on their minds, to

support the cause in which they embark, that hardly any weight should be given to their evidence.'

"Judge DAVIS, of the supreme court of Maine, stated: 'If there is any kind of testimony that is not only of no value but often worse than that, it is, in my judgment, that of medical experts.'

"In the recent CARLYLE HARRIS trial, the most eminent experts in the State (and out of it) were called to give evidence. These men testified to facts, so called, but they were diametrically opposed to each other. Of what value was this testimony in the obtaining of justice?

"Again, in a recent murder trial in New York, experts were on the stand day after day, for the purpose of deciding the question whether or not the presence of human blood could be positively determined; but here again it was of no value to either side.

"In the BEMMAN case the medical expert testimony was again brought into ridicule, to such an extent that the jury practically ignored the testimony of all the experts. The reason for this was very apparent, in that the jurors were not familiar with chemistry and its intricate technicalities. It is even asserted that while an eminent expert was giving his testimony a number of jurors fell into temporary somnolency. The fact is the system is to blame and not the experts.

"The mode of examining experts is, usually, in the form of a hypothetical question, put and paid for by the side calling the experts; in other words, the professional man testifies to certain opinions.

The hypothetical question has many objections urged against it. HORNBLOWER says:

"'It is claimed, and with much truth, that the hypothetical question assumes as proved whatever the counsel putting the question has endeavored to prove, and combines insignificant with important circumstances and alleged facts, supported by slight and perhaps worthless testimony, with other facts of which the proof is strong and convincing, while omitting still other facts of equal or greater importance which may be overwhelmingly established by the other side.'

"Expert testimony based upon such one-sided hypothetical questions is almost of necessity favorable to the questioner, and the true remedy is that already adopted by the laws of this State in insanity cases—the appointment of a commission of experts.

The same objections apply to England and we cannot understand how it is that no move has been made for reform in this direction.

TREATMENT OF PELVIC SUPPURATION BY INCISION OF THE POSTERIOR CUL-DE-SAC.

MR. SCHWARTZ, in *La Semaine Medicale*, 13th July 1898, gives his opinion upon this operative procedure, based upon personal operations, in the following terms.

"I will put on one side those cases where a purulent collection is pointing in the vagina and must be opened in that situation, in such circumstances we are all agreed that colpotomy is the proper thing to do, and I will limit my remarks to cases when the pelvic abscess is high up and where there may be some hesitation as to the most favourable way to reach it. In such cases I have adopted the vaginal incision fifteen times. My first case was a young woman with unilateral pelvic suppuration; fluctuation could be felt in the left vaginal cul-de-sac when the abdominal wall was depressed; I punctured it from the vagina. The flow of pus from the wound was accompanied by alarming hæmorrhage which was only restrained with considerable difficulty. This was an unpleasant accident to the possibility of which I would draw your attention.

"Ten months ago I observed a still graver complication. I was called to see a woman, 40 years of age, whose general condition was most precarious and who had a large pelvic abscess which could be felt in the right vaginal cul-de-sac. I performed lateral colpotomy, washed out and drained the abscess cavity; from this operation she recovered perfectly. Soon afterwards a fresh abscess appeared on the other side. I then proposed laparotomy but it was declined.

"Another surgeon incised, as I had previously done, the right side of the vaginal cul-de-sac: 24 hours afterwards the patient died. Though I have no exact information as to the cause of death, I am nevertheless inclined to altribute it to the colpotomy.

"Finally, quite recently, under the influence of M. MONOD'S observations, I attacked by the vaginal method a left unilateral salpingo-ovaritis accompanied by hectic fever. In this way I opened a first collection, above which I found a second and and larger one, having evacuated the pus I was washing it out when suddenly the solution failed to return. I forthwith performed laparotomy, which revealed the fact that above the second sac there was a third, the thin wall of which had been traversed by my canula which had thus penetrated into the peritoneal cavity.

"I then successfully undertook the extirpation of all the diseased parts and drained both through the abdomen and vagina. The patient is now out of danger and making a good recovery. In this case the vaginal incision led to a danger, which the laparotomy alone enabled me to avoid.

"Such are the immediate complications of this operation which appears so simple, now let us consider its future effects. I incised the posterior vaginal cul-de-sac in a woman aged 35 years, for six years she was to all appearances completely cured, but recently a very large abscess reappeared in the same place. I opened and drained it from the iliac fossa as her general condition did not permit of laparotomy. Again she recovered, but who can say that the suppuration may not recur at any time.

"In conclusion, in the limited number of colpotomies that I have done for pelvic suppuration, in three cases I have had immediate complications and in one a subsequent recurrence. In the presence of such results I cannot declare myself in favor of this operation in spite of the remarkable results obtained by M MONOD"

PRESIDENT PUGH'S VIEWS AND OPINIONS ON THE IMPERIAL ANGLO-INDIAN ASSOCIATION.

Dr. JAMES R. WALLACE reported to the Board of the Anglo-Indian Association that on Friday the 15th July, he had a Conference with Mr. L. P. PUGH, M.A., LL.B. Standing Counsel to Government and President of the Imperial Anglo-Indian Association, at Mr. PUGH'S request.

President PUGH after enquiring into the present affairs of the Association, with special reference to the question of the Conference of Delegates from all the Sister-Associations, the agitation concerning the Anglo-Indian Cause at Mussoorie, and the recent correspondence in the *Pioneer*, said (1) He heartily approved of the new name of the Association as the "Imperial Anglo-Indian Association," first, because the term "Imperial" abolished the idea of Provincialism, and embraced all the sister-societies under *one* head; it gave the idea of union and solidarity, and this is a strong necessity of the times. It abolished the term, "Eurasian," which was objectionable to a large number of the Community, who by the use of this term in the designa-

tion of the Association, were deterred from joining this body. (2) He personally objected to the use of the term "Eurasian" as applied to persons of mixed British or European and Indian descent. He felt it was reasonably objected to by members of the Domiciled British Community, and that if there were no other objection to the use of the term than its objectionableness, this was a sufficient reason for its elimination and disuse Mr PUGH was of opinion that the desire to compel the Community to continue the use of this appellation on the part of those who had no real sympathy with this section of the British race in India, was a most unworthy one, and the Associations all over the country should make a combined and determined stand to secure their national rights and privileges as members of the British Community and *not* under a separate name, which would always tend to dissociate persons of mixed race from their kinsmen, and thus give rise to schism and disunion, than which, nothing could be more lamentable and disastrous to the best interests of the Community. (3) Mr. PUGH said with special regard to the effort to create dissent over the expunging of the term "Eurasian" at a recent meeting of the Allahabad Branch of the Anglo-Indian Association, that he thought the meeting of Delegates from all parts of India ought to be held at Allahabad in December. He insisted that because of this very effort to create dissent over the disuse of the term 'Eurasian" at Allahabad, the battle ought to be fought out in the centre of opposition. Mr PUGH said if the meeting of delegates was held at Allahabad in December, he himself would endeavor to be present there. (4) With regard to the resolutions passed at a recent meeting of the European residents of Mussoorie, inviting him to be present there at a public meeting to inaugurate a branch of the Imperial Anglo-Indian Association, or requesting Mr. PUGH to depute Dr WALLACE to be present in his stead, he said he much appreciated the honor which the European residents of Mussoorie had offered him, but that as he could not go there, he would have much pleasure in deputing Dr. WALLACE to represent him at the public meeting at Mussoorie, and that when the occasion arrived he would furnish Dr. WALLACE with his credentials for that function. (5) In conclusion Mr. PUGH earnestly hoped that the general vote of the Association on the new Constitution would soon be given, and that the Council would launch out actively and prosperously on its important sphere of social and political work for the well-being of the Domiciled European Community of India

THE ROYAL COLLEGES ON VACCINATION.

SAYS the *British Medical Journal* :—"At the last meeting of the Fellows of the Royal College of Physicians, the following resolution was passed unanimously :

The Royal College of Physicians having learnt that certain changes are likely to be made in the laws relating to vaccination think it their duty to reiterate their conviction that vaccination properly performed and duly repeated is the only known preventive of small-pox, and this opinion they consider to be fully confirmed by the report of the recent Commission.

At a meeting of the Royal College of Surgeons of England, on 2nd August, Sir WILLIAM MAC CORMAC, Bart, President in the chair, the following resolution, adopted by them on 11th May, 1893, and presented to the Royal Commission on Vaccination as expressive of their opinion on the value of vaccination was reaffirmed—namely :

We, the Council of the Royal College of Surgeons of England, desire to put on record at the present time, our opinion of the value of vaccination as a protection against small-pox:

consider the evidence in favour of its life-saving power be overwhelming, and we believe, from evidence equally ong, that the dangers incidental to the operation, when perly performed, are infinitesimal. Experience has satisd us that, even when vaccination fails to afford complete emption from small-pox, it so modifies the severity of the ease as not only to greatly reduce its mortality, but to sen the frequency of blindness, disfigurement, and other ave injuries We should therefore regard as a national lamity any alteration in the law which now makes vaccination compulsory. We are moreover firmly convinced that vaccination is an additional safeguard, and should be universally practised We would add that we believe that the instructions of the Local Government Board for public vaccinators are well designed to secure the greatest efficiency in vaccination and to avoid the liability to risks from operation.

These are weighty declarations, which should have all the more force in that they emanate from bodies better entitled to speak with authority on the subject than any other. It is perhaps the only question in the whole domain of medicine in regard to which the profession are practically unanimous.

THE OPIUM TRAFFIC IN INDIA.

THE Anti-Opium Society in England continues its righteous war against State traffic in Opium, and every day gives encouraging evidence of its approaching victory. The curse will soon be removed, for the Government of India cannot hold out much longer in its greedy grasp of this iniquitous enterprise.

Under the heading "Words of cheer," the society has the following remarks :—

The resolution adopted at our last Annual Meeting, by which a large number of friends of the Anti-Opium cause in foreign lands were appointed corresponding members of the Society, has brought us many encouraging responses from those whom we have thus sought to identify more closely and permanently with the movement. These friends have heartily reciprocated our feelings towards them. One of the most interesting of these letters is that received from Dr. MOOKERJEE, of Calcutta, whose admirable evidence before the Opium Commission in that city will be remembered by many of our readers. It is due both to them and to the writer to reproduce it here :—

95, Mooktaram Baboo's Street, Calcutta, *14th April*, 1893.

My Dear Sir,—I beg to acknowledge receipt of your favour of the 18th March, in which you intimate a resolution of your Society appointing me a corresponding member of the Executive Committee of your Society for India. I am thankful for the kindly appreciation thus evinced of my humble efforts to support the cause of your excellent society, which aims at the suppression of the iniquitous traffic in Opium in my country

I most gladly accept the honour you offer me, and I can only add that I shall bear the burden it entails with loyalty to the highest interest of my countrymen, and with a due regard to the sacred and noble efforts of our British friends, who deserve the prayerful gratitude of all nations for their glorious attitude in the defence of national righteousness I would reiterate my earnest pleadings, which I ventured to urge upon the Royal Opium Commission, that your countrymen adopt measures to suppress the awful strides of King Alcohol in India, a demon whose withering touch is destroying the lives, devastating the homes, and blighting and blasting the temporal and eternal prospects of my countrymen

With kind regards and hearty good wishes. I am, yours sincerely,

LAL MADHUB MOOKERJEE, Rai Bahadur,
L.M.S., F.C.U. President, Calcutta Medical School ;
President, Indian Medical Association, Honorary Presidency Magistrate.

CLIMATIC TREATMENT.

THE following is an extract from an "Address on circumstances which influence the effectiveness of Climatic Treatment" delivered before the British Balneological and Climatological Society, June 1893, by Dr. G. V. POORE.

"It is not only necessary that a doctor sending a patient to a health resort should have a practical acquaintance with the main climatic conditions of the country or district, if it mountainous, maritime, or what not; but it is equally necessary that the patient should have the benefit of local knowledge as well. The word "climate" is generally used in a wide sense, but it is very necessary to remember that climates are often extremely localised. Go to the south side of a garden wall running east and west, and bask in the brightness and warmth, feast on the peaches ripe and ruddy, and listen to the hum of insects gloating in the sunbeams. Then go to the north side—damp, all in chilling shadow; content yourself with a few hard pears or sour cherries, escape off the damp moss growing in the mortar, and sniff the fusty smell arising from the dank sour soil. Can any contrast be greater? And yet these climates are only separated by a space of some nine inches. In houses there are rooms with different climates; in towns there are streets with different climates; and in districts, as we all know, it makes all the difference whether the house is on the north or south side of a hill; whether it is in a hollow where the air stagnates and the mists are only reached by the sun when the day is far advanced; or whether it is fairly open to the purifying influences of the wind and sun."

NEW R.A.M.C. AND I.M.S. SURGEONS.

THE following lists give the positions of the young officers of the Royal Army Medical Corps and Indian Medical Service when leaving Netley, with the combined marks of the Netley and London examinations, the final positions on the lists being determined by the results of both examinations, while the prizes are awarded for marks gained in the special subjects taught at the school.

ROYAL ARMY MEDICAL CORPS.

	Combined marks.		Combined marks.
W. H. S. Nickerson	5048	J. S. Gallie	... 4254
G. S. Nickerson	... 4998	F J C. Heffernan	... 4251
G. B. Crisp	... 4519	A. E. Thorp	... 4060
R. S. H. Fuhr	... 4503	C. W. Mainprise	... 4043
W. Jagger	... 4488	H. Herrick	... 3947
A. B. MacCarthy	... 4467	E. J. Dobbin	... 3894
G. J. S. Archer	... 4429	J. Cowan	... 3889
R Selby	... 4413	A. R. O'Flaherty	... 3833
S. O. Hall	... 4405	H B. G Walton	... 3676
A. E. Weld	... 4292	E. P Hewitt	... 3174

INDIAN MEDICAL SERVICE.

	Combined marks		Combined marks.
*T. Hunter	... 6322	M. F. G. Tucker	... 5208
†W. R. Battye	... 6103	G. E Stewart	... 5184
‡H. B. Meakin	... 5946	W. S. C. Thompson	... 5175
§G. Hutcheson	... 5603	T. S. Novis	... 5140
‖W. G. Liston	... 5585	J. W. Watson	... 5096
H. Boulton	... 5505	H. J. R. Twigg	... 4837
R. W. Anthony	... 5471	C. W. McG. Orpen	... 4753

* Gained the Herbert Prize of £30, the Montefiore Second Prize in Surgery, the Martin Memorial Medal, and the de Chaumont Prize in Hygiene

† Gained the Parke's Memorial Medal.

‡ Gained the Montefiore Medal and Prize of 20 guineas.

§ Gained the Maclean Prize for Clinical and Ward Work

‖ Gained the Pathology Prize presented by Sir Joseph Fayrer, Bart., K.C.S.I.

THE VACCINATION BILL.

COMPULSORY vaccination has at length come to an end in England. Owing to the sturdy opposition of a minority and unwilling to face a severe fight in the House of Commons, Mr. BALFOUR has given way on the point of compulsion; and Mr. CHAPLIN much against his will, or at any rate in the teeth of all his former protestations, has been obliged to add the following clause to the Bill for which he is responsible:

"No parent or other person shall be liable to any penalty under Section 29 or Section 31 of the Vaccination Act of 1867, if within four months from the birth of the child he satisfies two justices in petty sessions that he conscientiously believes that vaccination would be prejudicial to the health of the child, and within seven days thereafter delivers to the vaccination officer for the district a certificate by justices of such conscientious objection"

It is well known that compulsory vaccination has been for years resisted in parts of England, in the town of Leicester with 200,000 inhabitants, yet in this town for five years there was not a single death from small pox.

The case for vaccination is however considered to be too well proved by all those who have studied the subject, to be shaken by exceptions like this; and we fancy that although no longer compulsory it will still be resorted to almost as largely as ever by the better educated section of the population. Amongst the others, many will probably find it easier to get their children vaccinated than to comply with the above clause, so that we do not fancy its consequences will be very marked.

ANGLO-INDIAN *VERSUS* BRITISH PLAGUE DOCTORS AND NURSES.

IN drawing the attention of Government to the dismissal of Anglo-Indian Nurses from the Manicktolla Plague Hospital, the Board of the Anglo-Indian Association have adopted the following Resolution:—

Resolved.—That the Board of the Anglo-Indian Association have viewed with considerable anxiety and alarm the policy of the Bengal Government, in importing from England, medical men and nurses for plague duty in this Presidency, when local talent of suitable quality was so largely available.

This policy has resulted in a decided hardship to medical men and nurses in this country, who are in every way qualified for such duties, and the Board feel that it has just ground to complain against the action of the Government. They further desire to point out that such a policy, while inflicting a grievous wrong on local talent by placing an unmerited brand of inferiority upon medical men and women educated in this country, not only stamps the system of Government medical education in India, with the stigma of incompetency, but renders still more tangible and real, the disabilities under which the Domiciled European Community of India labor under the present system of Government.

If the plea be raised by Government that it was necessary to import English medical and nursing labor because of its superiority to locally-trained labor, the Board feel that this plea only still more strongly emphasises the position which it maintains, that State medical education in India is an admitted failure and demands reform. The Board from a public standpoint, desires most emphatically to state that the importation of British medical and nursing labor for plague duties was absolutely unnecessary, and the utilization of outside talent, in view of the fact that the men and women so employed were without experience of tropical diseases, of the languages, customs and social and religious prejudices of the country, was a serious mistake, involving, as it does, the unnecessary expenditure of large sums of money in the passage to and fro of the persons so engaged by the India Office, the payment of large salaries, such as in no case would be paid to locally trained labor, and the continued expenditure on such imported agencies, whether employed or unemployed.

Resolved.—That the above resolution be forwarded to the Bengal Government, the Plague Commission and the Government of India with a covering letter.

ANTI-PLAGUE INOCULATIONS IN CALCUTTA.

THE Risley-Plague Commission and the Bengal Government are probably secretly congratulating themselves that they did not, as they at first intended, coerce the people of Calcutta into accepting the abominations of HAFFKINE'S plague inoculation. They must now feel like thanking those who in the Municipal Council and in the medical press warned them against so calamitous and tyrannical a policy. The "conscience clause" just admitted by Parliament into the Vaccination Act, which the medical world believed had its foundations immovably fixed on solid rock, must be a very severe shock to HAFFKINE and his crew, as also to a philanthropically disposed, but utterly misguided Government. Fortunately for the evil results that may come to those who are inoculated with plague virus—results which no one can authoritatively say will not come—the HAFFKINE fad is dying out in Calcutta, as is also the Risley-Plague It is a remarkable fact that most faddists experiment on others and do not trust the vaunted virtues of their own theories on their own persons. It was said that the plague staff of Calcutta intended to set the example to a bewildered and ignorant populace, of paving the way to the acceptance of the filth planting system, by undergoing this blood pollusing operation themselves Up to the present however the plague staff have done exactly as all other faddists do, they have shirked the operation, and show by this conduct that they have no more faith in HAFFKINE, than they have in the man in the moon

ANGLO-INDIAN *VERSUS* BRITISH NURSES. HOW THE MONEY GOES.

A FEW months ago, two Anglo Indian nurses were employed in the Manicktollah Plague Hospital on salaries of Rupees a month and free quarters in the hospital

They were rendering excellent service and it is officially recorded that they were competent, skilful and attentive Suddenly two *ladies* from England appeared on the scene with passports from the Secretary of State for India, for employment as plague nurses.

They went over to the hospital, saw the quarters occupied by the locally trained nurses, and they were so utterly disgusted, that they refused to occupy such quarters They were immediately escorted to the Great Eastern Hotel the best and most expensive hotel in Calcutta.

On the plea that there was not enough work for them the Anglo-Indian nurses were discharged from their appointments, really with the object of being displaced by superfine British material just imported Mark the sequel These two sprightly lady nurses, with all the bloom of the English complexions, were hastily sent on to Darjeeling summer there, as it was feared they might lose their health and their lovely complexions. These nurses are on the "employed list" and yet are utterly unemployed the Municipal exchequer of Calcutta has to pay them 800 rupees a month for doing nothing, and these will probably the contingent bill for other necessary and unavoidable expenses, which the Municipal Council must pay without a murmur and without question, for under the Plague Infectious Diseases Act, the President of the Plague Commission,—Financier RISLEY—may order any extravagance he pleases without reference to the Municipality, and at august body must simply grin and bear his behests. Is it *government* with a vengeance.

MORE PLAGUE DISCOVERIES.

A CURIOUS discovery has been made, says the *Pioneer*, by MR. HANKIN, which explains one of the difficulties met with in the attempt to eradicate plague. MR. HANKIN has carried out a series of experiments, with special reference to disinfection against plague. While in Kashmir, he discovered that it is extremely difficult to disinfect an ordinary mud and cow-dung floor instead of eradicating them. The ordinary solutions, sublimate and carbolic acid, were found to lead to an apparent increase in the number of microbes present. The failure of the sublimate solution was found to be due to the destruction of the sublimate by alkaline substances in the floor. The reason for the failure of the carbolic acid, for some time puzzled the investigators, but experiments carried out by MR HANKIN and Lieutenant Stevenson, R.A. ultimately proved that the failure was due to the cow-dung, not to the mud. The latter was easily disinfected by means of 1 per cent of carbolic acid. Further, it was found that the microbes, bred in the cow-dung, do not possess any special resisting power, for they were easily killed when separated from the dung. The resistance to disinfection depends on the presence of some substance in the cow-dung, protecting the microbes from the action of these disinfectants. What that substance is, does not seem to have been discovered, but we presume MR HANKIN will not relax his efforts, until he has found out the nature of the substance and the means of neutralising it To leave it undiscovered, would be to grant immunity to one of the most fertile sources of plague propagation

REMOVAL OF STREET REFUSE.

AT a recent meeting of the General Committee of the Calcutta Corporation, a suggestion was submitted for consideration by Dr COOK, Health Officer, that it was not desirable at present to introduce an afternoon service for the removal of refuse Amongst other objections, he thought that in certain parts of the town, where afternoon service was most needed, such as Burra Bazaar, it would be practically impossible on account of the congestion of traffic. The increased cost would be Rs 1 03,095, against Rs. 42,078 in the Budget estimate submitted This did not include a night-train service to the Salt Water Lakes and unloading wagons by artificial lights, so that they might return empty for the morning service Unremoved refuse was no doubt unsightly and offensive, but he doubted whether it was any appreciable danger to health unless not removed for more than twenty four hours At present, he was of opinion that the work of removal began too early, men did not work well in the dark, and supervision was difficult if not impossible Dr COOK recommended mustering at 5 30 A M, and working till 11 30 A M He was also of opinion that the pay of the coolies should be increased.

A STORY OF JAMES SYME.

DR. MALCOLM MORRIS writes —"A story of Syme, which I heard many years ago, made a deep impression on me as showing at once the honesty of the man and his ready tact He was fond of impressing on his pupils the propriety of always putting a grooved needle into a breast before proceeding to remove it On one occasion, before operating on a woman with a breast of stony hardness, he repeated his customary warning, adding that although in the case before them there could be no doubt that the disease was scirrhus, he would yet, by way of showing an example of obedience to a salutary precept, take the precaution which he wished them to employ in similar cases Accordingly, he plunged the needle into the patient's breast, with the result that a gush of pus took place. Instead of being discomforted Syme turned to the class and with a little bow, said "There, gentlemen, that points in a manner which I didn't expect the moral I wish to impress upon you!" So struck were the men by the utter freedom from humbug thus displayed, that they observed the teacher who had turned his own mistake into a profitable lesson for them. Medical students are the most ruthless of critics, and only a truly great man could have done this."

AN EXTRAORDINARY HEALTH APPOINTMENT IN CALCUTTA.

A LITTLE while ago, our very worthy Health Officer—Dr. NEILD COOK—was, under the superior guidance of the Bengal Plague Commission, supervised of course by the infallible sanitary Mahatma who presides over that august but mysterious body, ordered to give over the bulk of his duties to Surgeon-Major W. B BANNERMAN, M.D, EDIN. I. M S. of Madras, Dr. COOK'S salary is Rs 1200. Dr. BANNERMAN was given Rs 1700! Dr. COOK is a sanitary expert of experience, with a sanitary degree, Dr. BANNERMAN has no sanitary diploma; yet the latter gentleman because he had the hall-mark of the I. M S. after his name, was made to supersede Dr. COOK and the taxpayers were compelled to pay Rs 1700 per mensem for this fancy article by command of the great Risley Company. Now that Dr. BANNERMAN has got disgusted of Calcutta and wishes to go away to his balmy Southern domain, we find the Bengal Plague Commission guilty of another act which indicates a spell of mental aberration, inasmuch as a young doctor, absolutely devoid of sanitary experience, possessing no sanitary diploma, a gentleman who has had only a few years of practice as a tea planters' doctor in Wynaad (Madras) has been appointed to succeed Dr. BANNERMAN, and thus a grave injustice has again been inflicted on Dr. NEILD COOK as well as upon the public. Dr. PETTIFER, the successor of Dr. BANNERMAN, is M B, M.R.C.S, and entered the profession in 1884, while Dr. COOK is not only four years PETTIFER'S senior, but has all the advantage of special qualification in sanitary science and a few years of practical hygienic experience in India We cannot congratulate the Bengal Plague Commission on either the wisdom or the justice of its selection, and we feel bound to say that the Municipal Sanitary Coach is being very badly driven by Messrs. RISLEY, HENDLEY & Co both as regards its capacity for good work and the extravagance of its upkeep.

THE HÆMATOZOA OF GOITRE,

THE following statement was made at the meeting of the Academy of Science on the 4th July, by M. E. GRASSET.

Our attention having been drawn to certain facts which appear to argue in favour of the infectious nature of goitre, we have been led to seek for the pathogenic agent of this disease

In old cases an examination of the blood showed nothing abnormal, but in eight persons whose goitres were said to have only existed for 10 or 15 days, we succeeded in demonstrating the presence of parasitic agents in the blood which was taken from the finger with all the usual precautions.

These agents recall the appearance of the hæmatozoa of malaria, described by M. LAVERAN, they differ however in the colour of the pigment which is brick red and by the absence of crescentic bodies. It is necessary to remark that none of our cases had ever suffered from malarial affections of any kind.

THE DEATH OF DR. K. N. BAHADHURJI

WE deeply regret to record the unexpected and untimely death of one of India's most brilliant and talented medical men. In the demise of Dr. K. N. BAHADHURJI of Bombay, on the 15th August, the local profession loses a precious ornament, for our departed friend was a great scholar, an honorable man and a zealous patriot. He held the degree of M.D. of the London University and was a scientist of a very high order. In him, original research and bacteriology have lost an ambitious and energetic devotee, while the cause of medical reform has been suddenly shorn of one of its warmest advocates and most fearless supporters. To Dr. BAHADHURJI, the local medical profession owes a debt of gratitude, the full measure of which, cannot now be appreciated, but in years to come, the exhibition of Dr. BAHADHURJI'S earnest warm hearted labors for the advancement of medical reform in India, will, it is hoped, find many who will then be prepared to honor his memory for the good he has done. Dr BAHADHURJI had gained a very honored position in public affairs, and in the esteem of his professional brethren all over India.

THE "INDIAN MEDICAL GAZETTE" AND MEDICAL REFORM.

WE are glad to note that in its last issue, the *Indian Medical Gazette* has awoke to the necessity for reform in Medical Education in India, and that it has taken up and championed one of the most important points that we have been hammering away at for some time past. This is an encouraging and welcome sign.

That the *Indian Medical Gazette* should at the same time veil its sympathies in this direction, by making the most trivial minor differences, is of course only to be expected from a strictly official journal, which has for years accustomed itself to view everything through rose coloured spectacles; and whose existence might be seriously jeopardised by greater latitude of thought, or freedom of speech.

With a journal so situated we can sympathise and make every allowance, but at the same time we rejoice to find that the light of truth is at last beginning to break through the clouds of officialdom.

THE TREATMENT OF STYES.

DR. T. W. VERY kindly sends the following reply to a query in our last number —

MEDICUS inquires for treatment of styes—Internally a moderate aperient. Locally, a paste made of the seeds of the fruit of the Data.

Rub the date stones to a fine powder on a clean stone like a curry-stone, mixed with just enough water to keep the seed-powder wet, collect this in a gallipot, keep it covered, and apply carefully with the finger to both eyelids, eye being shut, just before getting into bed at night. Next morning wash off the paste, and renew it if you can stay at home, avoid light, and remain in a dark room. If you cannot spare time for this, put a bandage over the eye affected while you are at work, and renew the application at night on going to bed. This mild astringent usually cures the stye in two or three days

It is a favourite remedy in native families—Mind the paste does not get into the eye.

PLAGUE IN BOMBAY.

THERE is unfortunately no further falling off in the number of deaths from plague in Bombay; they are at present ranging with marked regularity between 60 and 70 a week. This compares badly with the lowest death-rates during the lull last year, and is causing considerable anxiety,

The following are the figures for the corresponding weeks in each year,

Week ending						
"	1st June ...	34				
"	8th " ...	34	7th June ...	44		
"	15th " ...	26	14th " ...	26		
"	22nd " ...	19	21st " ...	15		
"	29th " ...	11	28th " ...	53		
"	6th July ...	7	5th July ...	38		
"	13th " ...	4	12th " ...	58		
"	20th " ...	9	19th " ...	68		
"	27th " ...	14	26th " ...	49		
"	3rd Aug. ...	18	2nd Aug. ...	62		

A MEDICAL HISTORY OF THE FRONTIER WAR.

It is understood that Surgeon-Lieutenant-Colonel Beatson, the Secretary to the Principal Medical Officer, Her Majesty's Forces, India, has got an extension of three months' tenure of that appointment in order to complete the medical and surgical history of the late Frontier operations. Comparatively little has been published of the working of the medical department in the field last year, but we have heard of many brilliant results in the application of antiseptic surgery to the wounded on the field. The same is true of the recent battle of Atbara in the Soudan. It is said that in many cases the antiseptic "first field dressings" applied to the wounds on the field of battle proved so satisfactory that they did not need changing nor renewal till the soldiers arrived in England many weeks after. Twenty years ago such a result would have been regarded as simply impossible.

THE MICROBE FAD.

We take the following from the *Sanitary Bulletin* :—

"They say there's 'mikrobes' all around, huntin' for their prey
"There's nuthin' pure tew eat or drink and no safe place to stay
'There's 'miasmy' in the dew-fall and 'malary' in the sun,
'Tain' safe to be out doors at noon or when the day is done.

"There's 'bacteery' in the water and 'tricheeny' in the meat
'Ameeby' in the atmospheer, 'calory' in the heat;
There's 'corpussels and pigments' in the human bein's' blood
And every other kind of thing existin' sense the flood.

"Terbacker's full of 'nickerteen' whatever that may be,
And your throat will all get puckered with the 'tannin' in the tea
The butter's 'oily-margareen, it never saw a cow,
And things is gettin' wus and wus from what they be just now.

QUARTERLY REPORT OF THE PENANG BRANCH OF THE INDIAN MEDICAL ASSOCIATION.

Nine meetings were held during the quarter ending 30th June, 1898.

There was a good attendance of Penang members.

The subjects taken up for discussion were :—Abortion and miscarriage, Soil; Functional Diseases of the Brain; Hernia Air; Disease of the Heart; Diseases of the bladder and urethra; Retention of Placenta and Post Partem Hæmorrhage, Bright's Disease; Mechanism of Labor.

A proposal to exchange Medical journals with Singapore members was carried.

Exhibits :—A two months' ovum with membranes intact by Mr. Carnegy

J. Fairley Carnegy, *Member of Committee for Penang*

THE I. M. S. AND MILITARY TITLES.

Since our editorial on this subject has been through the press, Reuter telegraphs from London that in connection with the new military titles and designation of the A M S the I. M.S. will also become the recipients of pure military titles as General, Colonel, Major and so forth, but the designation of their department will remain unchanged. They will not, as they certainly could not, be formed into a Royal Corps. But the questions will arise; You are a Colonel? Yes! In what corps? No corps! Then how can you be a Colonel?

The grant of military titles to these quasi-civil officers makes their employment on civil duty all the more glaringly anomalous, and renders the claim for a complete separation of the military from the civil branches of the Indian Medical Service, a paramount and imperative necessity.

AN ANALYST ANALYSED.

Indian Engineering says :—"Professor Hankin's analysis of the samples of Cotacamund water sent to him, has been referred to the Acting Sanitary Commissioner at Madras for opinion. It is considered by Government that the reservation clause in the analysis makes it very indeterminate. However, as it requires a scientific man to decide what the precise value of this reservation is, the matter has been referred as above stated. The Government now awaits Surgeon-Major Thomson's Report on the sanitary condition of Cotacamund, as well as his opinion on Dr. Hankin's analysis." Hankin is neither a Professor nor a Doctor, but a very unfortunate individual holding an invidious appointment.

VACCINATION FOR TYPHOID.

The following District Order has been published at Lucknow : "Commanding Officers are requested to furnish the Sanitary Officer, Oudh District, Lucknow, the names of any officers or men who wish to be vaccinated for (typhoid) enteric fever. From recent observations it is believed that the vaccination will afford protection from the disease for life." This is a satisfactory indication of professional opinion; but if the results of recent observations prove so much, surely the scope and character of the experiment should be made public. The grounds of faith in an operation, which is believed to afford protection against typhoid for life, cannot be too soon or too widely published.

A LITTLE WAR ANECDOTE.

Says the *Philadelphia Medical Journal* :—A junior officer was assisting a transport in disembarking his troops, and discovered that one of the men was so ill that he could not stand. The officer took the sick man to a steamer flying the Red Cross flag; but the authorities refused to receive him, as he had no ticket—was not *officially* ill. The officer took the man aboard and refused to take him away. "We don't have any guns aboard here," cried out the Red Cross military surgeon, and proudly heaved the sick man's gun and ammunition-belt overboard!

SHORT ITEMS AND PERSONALITIES.

Mr. T. H. W. Idris, L C C, in the *Chemist and Druggist*, lays three maxims, unimpeachable in their quality. He writes :—

"In my opinion, success in business is dependent on three things.—(1) Spend less than you earn. (2) Take care that your business is done in the best and most honest manner in every detail. (3) Let your principal desire be to work your business well, and in such a way as to be beneficial to yourself and those who are dependent on you, or to those who have claims upon you, and to the community.

The death of Dr. Gobind Chunder Dass, of Ahiritola, occurred on the 2nd August. The deceased was in his seventy-fifth year. Born in May 1823, he was admitted to the Medical College at eighteen years, and, having passed out of it in 1843, entered Government service as an Assistant Surgeon. He left the service a few days before the Mutiny, came back to Calcutta, and lived at Ahiritola, where he was born. During the last twenty-four years of his life he was totally blind. He was known as a very philanthropic man.

Surgeon-Captain C. R Stevens, M D., London, F.R.C.S., England, is another of our destinguished Anglo-Indians. To his developing obstetric abilities he lays just claim to being a pallist, the characteristic features of his exquisite singing being a thoroughly clear and distinct enunciation and a very well disguised effeminate falsetto.

Assistant Surgeon Chuni Lal Bose, F.C.S., Chemical Examiner to Government and Assistant Professor of Chemistry, Medical College, Calcutta, is appointed to be in charge, in addition to his own duties, of the current duties of the office of Chemical Examiner to Government and Professor of Chemistry, Medical College, Calcutta, during the absence, on leave, of Surgeon-Major I. A. Waddell, or until further orders.

The Royal Society, recognising the importance of the scientific study of the causes of malaria and its mode of distribution, and having regard especially to the researches of Surgeon-Major Ross, of the Indian Medical Service, into the relation of the mosquito to the malarial parasite, have appointed a small Committee to consider the subject, and to confer with a Committee appointed by the Colonial Office.

The death occured at Cheltenham, on 24th July, of Surgeon-General W. Johnstone, late of the Madras Army, who served with Sir Colin Campbell throughout the Chinese War, and was present during ten engagements, receiving the medal and clasp for bravery and distinguished services. For many years he was Deputy Inspector of Hospitals in the Madras Presidency. He retired from active service in 1876.

It may be of interest to learn that between the 3rd July and 10th August, 32,783 rats, 8,730 bandicoots, and 6,460 mice were slaughtered, the cost being paid for by the Madras Municipality at the rate of six pies per rat or bandicoot, and three pies per mouse. As rodents are supposed to convey plague, the slaughter is being continued and the dead rats are being cremated.

Surgeon-Captain J. C. S. Vaughan, M.B., C.M. Edinburg, is one of the distinguished Anglo-Indian ex-pupils of St. Paul's, Darjiling He married Miss Sinclair of Darjiling a few weeks ago, and the event was a day of rejoicing St. Paul's, for the boys had a holiday in honor of marriage.

Surgeon-Captain R. Bird, Resident Medical Officer, Medical College Hospital, Calcutta, is appointed to act in addition to his own duties, as Professor of Physiology in the Hospital. Surgeon-Captain F. C. Clarkson is appointed to act as Civil Surgeon of Nadia, vice Surgeon-Captain H. Deare on deputation.

A summons was granted by the Chief Presidency Magistrate, Bombay, against Dr. Dias, in charge of the Hospital, for liberating a man suffering from plague and thereby doing a rash and negligent act, likely to spread infection. The information was laid by Lieutenant Judge, District Officer.

At a meeting of the Fellows of the Royal College of Physicians in Ireland, held on the 23rd ult., it was unanimously resolved that the Honorary Fellowship should be conferred on Sir Charles Cameron, the head of the Public Health Department of the City of Dublin.

The Master in Surgery, Guy De Chauliac, who flourished between 1300 and 1370, was the author of the first surgical treatise of importance after the Middle Ages, a work that had full sway for two centuries. He grouped together a few precepts for his own and his pupils' guidance.

It is gratifying to observe that a young Indian, Mr. S. C. Mahalanabis, B.S.C., F.R.M.S., F.R.S.E., has been appointed Professor of Physiology in the University College, Cardiff, for a year, in place of the distinguished Physiologist, Professor Haycraft, on leave.

Motors are having a good time in Madras. Nearly all General Military Practitioners—Colonels, Majors, Captains,—have ordered new marble slabs for their gates. "Good old-fashioned title "Dr." is too common, even "Surgeon" is too ordinary. A real live Major or "Colonel" may now be tolerated.

Dr. L. Simonds, French specialist, who arrived in Bombay in May, with the plague serum, after successful treatment of cases at Karachi, left Bombay on Tuesday for Darjiling, where he will remain until next month. He will then proceed to Saigon in Indo-China.

It is stated that over one-thousand sets of individual communion cups were sold to about three hundred churches in this country during 1897. Each service consists of forty and forty small cups or glasses, holding each about an ounce.

Dr. Charles Banks, M.D., C.M. Glas. D.P.H. & F.P.S., has not as stated in our last number begun private practice in Calcutta His official position as Medical Inspector of Vaccinations and Health Officer of the Port of Calcutta, debars him from this official privilege.

Surgeon-General Hendley, M.D., C.I.E., I. M. S. Inspector-General of Civil Hospitals has gone on tour. It is stated that he will do some snipe shooting. Who will dare to say after this that the *Military* spirit is not alive in the *Civil* side of the I. M. S.

Surgeon-Captain W. H. Pilgrim M.B., L.R.C.P. London M.R.C.S. England, Superintendent of the Presidency General Hospital does *not* engage in general medical practice as this is forbidden by Government. He is allowed consultation work.

The Government of Mysore has sanctioned the proposal to send Mr. Palpu, Assistant Surgeon, to the Continent for the purpose of making a special study of vaccination On his return the Government proposes to erect a lymph-manufactory at Mysore.

Miss Elizabeth Phillips, House Surgeon of Cama Hospital, Bombay, died recently from plague after an illness of about one week. She was about 25 years of age. After graduating at Calcutta, she joined the Cama Hospital in December, 1896

The University of Aberden conferred the honorary degree of L.L.D. on Dr. William Osler, Professor of Medicine at the Johns Hopkins University, Baltimore, U.S.A., at the graduation ceremony, on 21st July.

Dr. Cheadle, the senior physician of St. Mary's Hospital, London, has presented the medical school attached to the Hospital with the sum of £500 to found a gold medal in Clinical medicine.

Military Assistant Surgeon W. Clarke, Officiating Assistant to the Surgeon Superintendent, Presidency General Hospital, Calcutta, is appointed to act as House Surgeon to the Howrah General Hospital.

Surgeon-Lieutenant-Colonels T. J. H Wilkins and P H. Benson have been selected to fill the next vacancies in the rank of Brigade-Surgeon-Lieutenant-Colonel on the Madras Establishment.

A late government examination of the eyes of 8,125 children in twenty-five elementary schools of London is said to have shown that scarcely forty per cent. were possessed of normal vision in both eyes.

The Indian Medical Service of Bengal being rather short-handed at present, the Government of India have had to be asked to make arrangements to fill existing vacancies. The latest of such appointments filled has been one at Durbhanga.

The Madras Government has decided to construct a deep naval canal from the south-west corner of the harbour to the Cocoanut, and plans are now being prepared. The canal will probably be connected with the proposed boat basin or docks.

Major Tomkins, L.S.A. Lond., I. M. S., *Civil Surg* Bhadkura, has just ordered a handsome *military* outfit Ranken's. He will make an inspection of his in uniform.

Lord Wolseley has issued a Memorandum to the enjoining temperance and purity on the troops, and d the officers to supervise and advise morality on the their men.

After a very extensive experience with hypnotic t the neurologist Charcot, concluded that not more than hundred thousand sick persons would be apt to derive therefrom.

A prominent American actress died recently fr indefinite malady, and it is now asserted that her d due to a too liberal use of an obesity-cure. She w habit of swallowing the nostrum in very liberal qu

Assistant Surgeon W. C. McMillan, doing duty Garrison Dispensary, Fort William, has been ordered ceed to Jask, Persian Gulf, as soon as possible.

Military Assistant Surgeon G. T. Mitchem, attach Howrah General Hospital, is appointed to act as Ho geon to the Mitford Hospital, Dacca.

Miss Grace F. Pereira, M D., L S.A. has rejoined the Fund Service on her return from England, and has pointed to Chittagong.

We regret to learn that several children are do typhoid at Mussoorie. The station has hitherto been this season.

The Bombay Corporation have resolved to adv tenders for a loan of forty-nine lakhs, of which twen are to cover plague expenditure.

"Surgery should be as the handmaid of medicine planting her mistress nor yet usurping her rights, l assisting her to maintain them"

Tropical heat being experienced in London, severe are recorded from excessive heat and innumerabl sunstroke are reported.

Surgeon-Captain C. Donovan is to take up the pos retary to the Surgeon-General, Madras, made vacan geon-Captain Elliot's transfer to Coonoor.

Dr. Raye, Inspector-General of Hospitals, Punjab it India for England on furlough, preparatory to his ret Dr. Franklin will succeed Dr Raye.

Dr H C. Garth, M B, C.M., Edinburgh, has joined P. Greenhill, L.R.C P Edinburgh, M R.C S. England, practice in Camac Street

Sir George Robertson, M R.C S, of Chitral Fame, has decided not to return to India, has joined the Com of the Indian Section of the Society of Arts.

Dr S. O. Moses, L R C P, Edinburgh, has resumed at 4, Wood Street.

Dr. Zama Feldstein, M.D. has begun work 50, Dharamtala Street.

Acetylene, when liquid or when subject to pres greater than one atmosphere, shall be deemed an ex.

We regret to announce the death of Major G. S. R. A. M. C., at Murree, two weeks ago.

The Medical Register and Directo the Indian Empire is now ready and is ing to all registered subscribers. Mo should be lost to secure copies.

Current Medical Literature.

MEDICINE.

Treatment of Delirium Tremens.

Looking upon Delirium tremens as a toxemic condition in which the nerve centres are seriously disturbed by the excessive use of alcohol, Dr. F. D. Crothers insists on sequestration with full control of the patient and complete withdrawal of alcohol as the first essentials in the treatment. This should be followed up daily with hot baths and free massage. As the delirious period cannot be cut short by narcotics or hypnotics, they should not be used; but the prime object being the elimination through the skin, bowels and kidneys of the toxic poisons which are present, the free bathing should be supplemented with calomel and saline catharsis, which should at first be free, irrespective of all weakness and apparent prostration which may follow. The patient kicks against the first bath; but once compelled to submit to it he never objects to its repetition and sleep usually follows within 24 to 36 hours after free catharsis and bathing, while the insomnia and muscular agitations are limited and will end in sleep and rest after 4 or 5 days, though the hallucinations may continue for a week or two with lucid intervals which constantly increase in length. Where bathing is impracticable, diaphoretic drugs of which ipecac is the best, should be given; but neither tonics nor stimulants are to be exhibited until after the complete subsidence of the delirium and the full establishment of the period of sleep and exhaustion when strychnia nitrate grs $\frac{1}{30}$ may be given 4 times daily, or infusion chinchona every 3 or 4 hours Chloral, digitalis, opium and the long list of ammonia combinations and coal tar preparations *are dangerous*. No food should be given until free action of all the eliminatory organs is established, when hot and easily assimilable liquid foods are required As forcible restraint is in most cases dangerous to the patient, let him be kept under close observation, but permit him the fullest exercise compatible with his safety and his surroundings.—*Med News*

Influence of the Mind upon the Body.

Is much greater than the majority of the medical world are just now proposed to admit, though physicians have long used some form of Mind-cure, but often without fully understanding whether the drug employed, or the patient's will power, or the degree of faith imposed in the medical adviser, effected the cure. Be these as they may, Dr. I. S Stone of Washington D C., points out that to Charcot, perhaps more than any other modern physician, belongs the credit of having rescued the practice of mental therapeutics from the deep sea of fraud and imposition to which it was consigned by an honest if not a discriminating profession, who forgot that in every community are to be found a very large number of nervo sanguine patients, who may take real or pretended drugs with equally good effect, and that while many nervous women demand some application of the mind cure in every variety of disease, just as they manifest a neurotic type of every illness, the stereotyped valerian or asafœtida without their abominable odor and disgust associated name, would fail most lamentably with the hysterical woman who can scarcely be treated, or even temporarily relieved, save by means of some form of mental impression.

Stone insisting that the *physician's will* and not that of the patient must be supreme, declares that (1) hysteria in all its forms, (2) functional neurosis, (3) any form of mimiory neurosis (4) certain forms of melancholia and (5) habit cases, are the most suitable for the use of the mind cure which does not preclude the administration of suitable

remedies whatever to existing abdominal conditions of the organs of nutrition or assimilation. As nearly all such patients are victims of many psychical disturbances, he cautions the physician against letting the patient suspect he thinks her ailments are imaginary, but to let her continue to deceive herself while he wins her confidence in his professional abilities, when it will be time enough for him to drive home the haft of the wedge of suggestive therapeutics, whose thin end has been ingrafted, and in proof of this he cites some cases in which some that were grave indeed, were cured by the employment of *mock* operations (under anæsthesia) of oophorectomy, abdominal section, &c.,—*Virg. Med. Semi-Monthly.*

Facial Neuralgia, Tic Douloureux and Migraine.

LOOKING upon *migraine* as a neurosis which may co-exist, in the same person, with trigeminal neuralgia from which it differs radically, and being quite distinguishable requires treatment with big doses of bromides, Dr. G. DE LA TOURETTE divides facial neuralgia into three classes from a therapeutic point of view. (1) In the first form which is transitory and usually due to cold or peripheral irritation, the onset is sudden and there is an acme and a decline, while the pain during attacks is less intense though seldom absent between them. This form is always benefitted by analgesics (such as antipyrin, phenacetin, hydrobromate or valerianate of quinine) which do not at all influence the (2) second form or tic douloureux, which is completely paroxysmal and quickly reaching its maximum intensity ceases as suddenly as it came. In one day there may be from 10 to 100 attacks which may come on spontaneously or be incited by physiological acts such as laughing, chewing, blowing the nose &c and induce secondary vasomotor symptoms as injection of the eye, œdema of eyelids, discharge from one nostril &c, while herpes along the nerve is common and the neuralgia lasts for weeks or months and vanishes completely for a period, but as age advances, the intervals shorten, and the painful periods lengthen until the disease is permanent, refractory and often incurable, through sometimes amenable to large doses of opium. (3). Hysterical neuralgia which is curable by suggestive treatment, may often co-exist with tic, from which it may be distinguished by the usual presence of an aura and by terminating frequently with hysterical convulsions which (latter) are never provoked by true tic.—*Sem. Med.*

Intestinal Lithiasis and Intestinal Gravel.

DIFFER from biliary calculi in that while there is an organic element chiefly stercoral, and an inorganic one represented by magnesia and calcic salts with traces of gallica &c., there is no cholesterin and as intestinal lithiasis which is, frequently associated with it mostly appears at the same time as the membranous enteritis which it may sometimes follow, Professor DIEULAFOY, thinks intestinal sand in many cases belongs to a gouty diathesis. Apart from lead colic and the pains of gastric or duodinal ulcer, intestinal lithiasis is most likely to be mistaken for hepatic colic or appendicitis from which it may be distinguished by pseudo-membranes, sand or calculi &c, being found in the stools, and by the peculiarity of the symptoms in which abdominal tympanites is the most common preliminary. The paroxysms succeed each other rapidly and the whole attack lasts from 24 to 36 hours and is followed by the expulsion of hard fæcal matter or diarrhœal stools containing mucoid masses together with sand gravel or calculi. The attacks are often periodical occurring some hours after repast and recurring several times a month or a year through many years. Morphine may be given during the attack and in the interim hygienic measures, dieting and treatment by mineral waters—Vichy is best—are recommended.—*Bull. de l'Acad. de Med.*

SURGERY.

Treatment of Appendicitis.

As the true cause of this affection is probably stoppage of the passage from the appendix to the colon, opium, though it may relieve the pain and discomfort, entirely masks the symptoms at a most important time, *i. e.* the first 24 hours from the beginning of the attack. MCBURNEY looks upon appendicitis as a surgical rather than a medical disease, and declaring that preliminary treatment is often worse than useless, says that the chief cause of death is delay of some sort or another, and points out that while the second attack predisposes to a third, each attack renders operation, *which is indicated between the attacks*, more difficult and more dangerous. If when the patient be kept in bed the symptoms do not get worse in 5 or 6 hours, there is no immediate danger, and if there is still no increase in the severity of the symptoms after 12 hours, the probabilities are that he will improve without operation; but if the urgency of the case has steadily increased in 12 hours from the time diagnosis was made, it is an indication for operation, which should *not* be performed within 14 days after an acute attack, as in operation during an acute attack the prognosis is far from favorable, though in abscess cases the sooner we operate the better.—*Brit. Med. Jour.*

Castration and Vasectomy in Hypertrophy of the Prostate.

FAR from recommending castration as a universal panacea for hypertrophied prostate, Dr. J. W. WHITE explains that (1) if the patient is not very old, virility good, has sound kidneys and only a moderate amount of residual urine, catheterism only is required, but (2) if the pain is marked and resists bromides, belladonna, phenacetin, &c. Vasectomy is indicated. (3) So also if the residual urine reaching 3xii, does not diminish under catheterism or if the sexual power is weakening, and there is danger from backward pressure on the kidneys, atony of the bladder or cystitis; but (4) the younger the patient the greater his virility, the sounder his kidneys and the better his general health, the more the surgeon should incline toward prostratectomy; whereas (5) castration promises the most benefit and least mortality in the worst cases where the prostate is enormous, the cystitis excessive, the bladder dilated and atonied, the retention absolute and catheterism difficult or impossible. Of course any operation involves risk, but this risk must be changed and though castration may occasionally fail, it is the best procedure and very often the improvement is marvellous.—*Lancet.*

Indications for Paracentesis of the Membrane Tympani in Otitis Media Acuta.

As a ... neglected or badly treated cases of otitis media, which is a serious complication of any disease from coryza to syphilis, Dr. H. V. WURDEMANN (*The Laryngoscope*) cautions both the profession and the laity against injudicious recourse to ear-drops, opiates and douches which often do more harm than good, and points out that (1) ear-ache being a symptom of, perhaps, dangerous disease, whose pain may be masked by opiates, dangerous to the ultimate risk of the patient's life, it is wisest to (2) limit the character, localise the extent of tissue destruction and shorten the course of the disease, as well as immediately relieve the pain, mitigate the symptoms and prevent sequelæ by incising the membrane (before it bursts) at once if fluid is detected, and the drumhead be reddened or bulging. Should the case be seen after spontaneous perforation, the hole in the drumhead should be enlarged by incision, which gives but temporary pain, so as to permit

of profuse discharge, after which (1) the skin should be wiped dry, rendered aseptic by iodoform, formaline or boric wash and provided with a drainage wick of iodoformized gauze, which should be changed every 3 hours. (5) The outer atmosphere must be excluded by *light* plugging with absorbent cotton and (6) constitutional and general symptoms carefully attended to.

Treatment of Hæmorrhoids by Dittels' Method.

Is very strongly recommended by Dr. ZUCKERKANDL, who obtained good results from it in 269 cases of internal piles with prolapse of the mucous membrane. The SCHLEICH infiltration obviates general anæsthesia and deadens the pain while, by pressing, the patient forces out the masses, when the pedicle is grasped by a polyp forcep and twisted to an angle of 90°, which develops the hæmorrhoid which is then tied off with tensely stretched *elastic* ligatures, which are allowed to remain undisturbed for 8 to 10 days, by which time the ligated masses necrose, fall off and leave a clean granulating wound which heals in about a week. —*Wein. Med. Presse.*

Massage in Surgical Practice,

ZABLUDOWSK, holds that massage is one of the most important factors of conservative surgery, and a sovereign means of quickly restoring the use of the limbs to surgical patients who have been debilitated by long confinement in bed. To injuries of the limbs and chronic articular troubles a long list of other affections, both local and general is added, in which it is stated, massage is likely to do good. This list includes peripheral circulatory disturbances; chronic gynæcological diseases, hæmorrhoids, and prostatic enlargement: and many abdominal complaints on the borderland of medical and surgical practice. It is indicated in many cases of paralysis of both cerebral and peripheral origin, so long as such paralysis is not associated with muscular contraction and rigidity, and exaggerated tendon reflexes. In the treatment of chronic neuritis and muscular rheumatism, massage, to do any good, must be practised with some energy. The author insists on the necessity of a long and careful training of those who intend to take up the massage treatment, and he mentions many afflictions, some of a serious nature which may result from ignorance of the details of the method, or of carelessness in its practice.—*Brit. Med. Jour.*

Asepsis in Operative Surgery.

QUENU *Rev. de Chir*, discusses a recent paper by MIKULICZ, who holds that as a result of his personal experience and that of other German surgeons, the substitution of aseptic for antiseptic methods in surgical operations has done harm and not good. The failures that occur from time to time in the practice of very careful surgeons are attributed to the difficulty in effectually sterilising the hands. and also to the discharge of pathological microbes from the mouth and nose of the operator in breathing and talking. MIKULICZ asserts that a marvellous improvement has followed his use of sterilised gloves whilst performing operations. QUENU whilst admitting the difficulty of rendering the hands pure, attaches more importance to a strict avoidance of contact with any septic patient for twenty-four hours before performing a serious operation. An ideal precaution, he states, would be for the operating surgeon never to open an abscess, or, at least, never to touch pus. He suggests the separation of wards for suppurating cases from those of aseptic cases, with a special *personnel* and material for each. A rectal or vaginal examination should not be made for at least a day before the operation, and, if this cannot be avoided, special care should be taken to cleanse and sterilise the skin of the hands. He is opposed to the performance of an important operation in a large theatre, and in the presence of a great number of students.—*Brit. Med. Jour.*

OBSTETRICS AND GYNÆCOLOGY.

Puerperal Infection.

(a) CONTACT of the physician or nurse is the most frequent cause; (b) make as few vaginal examinations as possible in obstetric practice; (c) omit the anti and post-partum douche as routine practice; (d) at the first appearance of puerperal sepsis give the parturient canal one thorough disinfection; (e) be sure not to overlook localised pelvic inflammation which may require a major operation; (f) use stimulants fearlessly, employ injections of normal salt solution, under the skin, into the rectum and intravenously, and try the administration of nuclein; (g) before employing an antistreptococcic serum, be sure that you have to deal with a pure streptococcus infection. R. C. NORRIS.

The most constant and earliest symptom are elevations of temperature, rapid pulse and relative or absolute insomnia. FERRE.

For the ocurrence of sepsis in child-bed the attending physician must usually hold himself to blame. Practically all causes of infection are within control, and puerperal sepsis is a preventible disease.—CHAS. JEWETT. *Canad. Pract.*

Non-ligation of the Umbilical Cord.

KELLER, in the *British Medical Journal*, in advocating non-ligation of the cord, states that he has practiced it in more than 2,000 cases, and after careful examination and observation of these cases, summarizes his views as follows:

1. Ligation is unnecessary because (*a*) it is not required at birth of any other animal; (*b*) the imagined necessity to prevent hæmorrhage does not exist; (*c*) to tie for cleanliness is superfluous; (*d*) it is unreasonable to consider that such an imperfection, as needs ligation, exists.

2. Ligation is in many cases injurious because, (*a*) it may justly be considered the cause of secondary hæmorrhage; (*b*) by interfering with desiccation, and thus preventing suppuration, it gives rise to ulceration with not infrequent consequences of erysipelas, fungoid excrescences, etc., (*c*) it causes inflammation of the funicular vessels by keeping them distended with unnaturally retained blood, hindering their normal obliteration, and laying a foundation for phlebitis, jaundice, etc., By preventing a normal escape of blood and thus causing hyperemia and congestion of the portal circulation, it may lay the foundation of numerous infantile affections apparently originating in congestion of these vessels.

(3). Numerous fatal cases attributed to ligation have been recorded by the highest authorities. It can be seen in the new-born that the ligature maintains the ventricle in a state of distension, otherwise relieved by bleeding from hypogastric arteries, and this prevents renewal of the action if the heart has stopped, or hastens its stoppage if it is failing.

Treatment of Ruptured Uterus by means of Gauze pa

SHOULD the rupture occur before delivery and the child escape into the abdomen, immediate abdominal section with withdrawal of the fœtus, placenta, &c., and draining of the wound after thorough lavage of the abdominal cavity with a solution of sodic choleride in water (teaspoonful, to the pint) maintained at 105°F., will save the patient's life.; but should the rupture occur in the lower segment of the womb, during delivery, Mr. A. W. MAYO ROBSON F.R.C.S., (practitioner) thinks the probabilities are of its passing unnoticed for some time, as the shock may

not be controllable nor the hemorrhage be sufficient to produce immediate collapse, and simple vaginal examination may not discover the rupture. Hysterectomy is scarcely practicable and the best plan is to curette and wash out the fundus of the uterus; compress the abdomen so as to force all the free blood possible out of it, after which pack the laceration very thoroughly with long strips of iodoform gauze,—several yards perhaps—and apply a firm pad, held in place by an abdominal bandage, over the pubes.—*Prac.*

Advantages of Vaginal Section for Pelvic Suppuration and Circumscribed Hæmorrhage.

The above are highly extolled by Dr. EDWARD NICHOLAS LIEBL, who claims that it lessens the risks attending abdominal section to which it is much to be preferred, and having for its main object the breaking up of adhesions and removal of vague pelvic pains, is unequalled as an exploratory measure for purposes of differential diagnosis, and it is a solemn fact that when PEAN, JACOBS, SEGOND and other gynecologists removed diseased uteri and pus tubes by vaginal section, they met with greater success in their more serious cases than when they employed abdominal section. To blindly follow in the wake of any group of enthusiasts is at all times injudicious and though it is not always an easy matter to decide upon the operative procedure most proper for the good of the patient, and yielding the best results, still if it is a very extensive lesion that cannot be reached *per vaginam*, it is needless to open the peritoneal cavity, while there is much less danger in operating per vaginam in the TRENDELENBURG position. True there are instances where abdominal section is imperative; but even in the majority of instances where vaginal section and efficient drainage are but relief not cure measures, the local conditions may be so changed that a subsequent operation for removal of the appendages and uterus would not be relatively dangerous.—*Med. Rec.*

New Method to Restore an Asphyxiated Child.

STRINGER calls attention to the fact that the asphyxiation of an infant after a difficult labor, being due to a lack of oxygen, may be overcome if the blood is kept oxygenerated, until the sensitiveness of the child is sufficiently restored to permit normal breathing to begin. He discovered quite by accident that this oxygenation may go on through the surface of the placenta if the latter is exposed to the air. Having had a miscarriage case at the fifth month, in which the fetus, the membranes, and the placenta all came away together, he wrapped up the specimen with the intention of examining it the following morning. Great was his surprise to find several hours later that there was still a pulsation of the heart. Life had evidently been prolonged by the aeration of the blood, which took place through the placenta. STRINGER has since had occasion to test this method in the case of several full-term children born asphyxiated, and has found it to work admirably. As such cases usually follow long and difficult labors, the placenta is already separated in whole or in part, so that its removal does not present any difficulty. It is to be removed as soon as possible, its surface washed and exposed to the air, when the child will live an indefinite time, as it did in the uterus, without respiration. When respiration begins, which was not for twenty-five minutes in some of the cases, pulsation in the cord will cease, and it may be tied and cut.—*Med. News.*

PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

Muscular Movements and the Heart's Action.

AMONG many interesting points determined by Dr. AUGUST STADELMIN, in his investigation of treating cardiac instability by muscular exercises are the facts that even in health (1) the some exercises on different occasions and in the same individual gave varying results so that (2) the degree of force employed on different occasions must be regulated by its apparent effect and (3) though the immediate effect of the exercises was to induce well-marked dicrotism or the TRAUBE-HERING curve of the pulse and exaggerated respiration indicating rhythmical action of the vasomotor centre still (4) the heart, accelerated by exercise, *very rapidly* recovers its average rate of pulsation in periods varying from 2 minutes upwards to 5 in accordance with the age and vigour of the person. All this pointing to the influence of exercise of the heart's action and suggesting its employment in cardiac therapeutics.—*Deuts. Arch. f. Klin. Med.*

Paroxysmal Tachycardia.

WHILE admitting the frequent failures of all the remedies employed, Dr. WATSON WILLIAMS found digitalis more useful than any other drug in the intervals between the severe and prolonged attacks of paroxysmal tachycardia, which, he thinks, is due to a neurosis of the intra-cardiac ganglia, which leads to dilatation and functional disease of the heart, whose inherent rhythmicality appears to suddenly pass beyond the control of both sets of regulating nerves, in those cases where a generally enfeebled nervous system is immediately excited by some sudden loss of emotional or other energy.—*Brit. Med. Chir. Jour.*

Some Causative Factors in Ulceration of the Cornea

HAVING noticed that almost every child he treated for corneal ulcer had an irritating nasal discharge that produced eczematous condition of the skin about the nose, and thinking it quite possible that the condition of the nasal mucous membrane had a good deal to do with causing the eye trouble, DR. FRANK EDSALL treated the nasal and eye troubles conjointly, and had such good results that he advises the routine practice of giving the nasal trouble and the corneal ulcer the same attention, as he believes that the ocular trouble is undoubtedly of bacterial origin with the infection propagated from the nasal cavity.

He also insists that all forms of corneal ulcers demand close enquiry into the refractive state of the affected eye; as the refractive most prone to cause disturbance in the nutrition of the cornea is a myopic astigmatism, although the cornea may be involved in an inflammatory affection arising from excessive demand upon the ciliary muscle, dependent upon almost any of the various refractive errors, and there is no special characteristic of this form of corneal trouble to distinguish it from other corneal ulcerations, beyond its tendency to recur.—*Opthal. Record.*

Bacteriology of Infantile Diarrhœa.

THOUGH our knowledge is imperfect regarding the specific agents at work, everything points to this disease being due to the changes produced by bacteria in the milk. While MACFADYEN, NENCKI, and SNIEBR show that the bacteria of the small intestines primarily decompose carbohydrates to produce an acid reaction which is a main factor under normal conditions, in preventing the development of putrefactive decomposition, ESCHERICH who found no specific organisms in the milk faeces he examined, thinks the diarrhœa

due to abnormal acid formation by bacteria, of which the two predominant varieties, A. B. coli communis and B. lactis aerogenes—cause fermentative, not putrefactive, changes in the milk sugar and the chief products of their action are acetic and lactic acid and CO2 and H2 gas. He further suggests that it is through their action on the milk and not by direct invasion of the body, that the bacteria acquire their dangerous properties on children who are subject to toxic influences that may not affect the adult.

BOOKER isolated 33 forms of bacteria from cases of infantile diarrhœa; but BAGINSKY, who did not find specific organisms in 43 cases of summer diarrhœa, is of opinion that saprophytes may produce this disease, the severe forms of which seem due to bacterial poisons developed from the proteid constituents of the food, and which VAUGHAN who has isolated from poisonous milk, a crystalline body (tyrotoxin) capable of producing symptoms resembling cholera infantum, believes that there are many bacteria which may produce diarrhœa in children by an action on the milk inside or outside of the body, there is little doubt that milk suffers a profounder decomposition in hot weather than the ordinary lactic acid fermentation, and these changes may occur without visible alteration in the appearance of the milk. Even sterilised milk is not without danger and FLUGGE proved that the heat of sterilisation does not kill several pathogenic bacilli. Milk therefore furnishes a better field for investigation than does the intestine, and if the living agents at work in the milk were accurately known, means could be adopted for their extinction and for the prevention of the diseases they evoke.—*Brit. Med. Jour.*

Test-tube Reactions Between Cobra Poison and its Antitoxin.

WAS the title of an interesting paper read before the Pathological Society of London, by Dr. J. W. W. STEPHENS and Mr. W. MEYERS, whose experiments were made with a view to ascertain whether (1) the cells of the animal body are necessary for the action of an antitoxin to make itself felt or (2) whether the antitoxin and toxin react chemically on each other, and this without the assistance of the living organism, as well as to look for other reactions between a toxin and its antitoxin *in vitro* and at Professor KANTHACK'S suggestion they were led to examine.—(1) The action of cobra poison on the blood *in vitro*, (2) how CALMETTE'S antitoxin affects this action and (3) whether the neutral point is the same *in corpore* as it is *in vitro* for the animal whose blood was experimented upon. After pointing out the necessity for dissolving the poison in solutions that were isotonic or only slightly hypertonic, for the particular blood under examination, they say that the hæmolytic action could be completely arrested by definite quantities of serum but that while 0·1 c.c of isotonic serum always sufficed to arrest the hæmolytic action of 0·1 *mg* poison on guinea pigs' blood, larger amounts of poison, although completely neutralised as regarded hæmolysis proved rapidly fatal when injected into animals. This leads them to the conclusion that snake poisons, being composed of two or more proteid constituents may contain, in addition to the toxic substance which is neutralised by the serum, another toxic substance which is not so neutralised by the amount requisite to prevent hæmolysis. The agree that the toxin and antitoxin react chemically *in vitro*, and they summarise their results thus:—(1) Cobra poison is strongly hæmolytic *in vitro* and (2) is neutralised by antivenomous serum whose action is specific. (3) This neutralisation is chemical, not cellular nor vital and (4) in certain doses the measure of this neutralisation *in vitro* is a measure of the neutralisation *in corpore* for guinea-pigs.—*N. Y. Med. Jour.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Care and Feeding of Premature Infants.

THE MORE premature the baby the less its power to produce heat and the greater its capability of losing heat. Hence Dr. G. F. BLACKER points out the necessity for (1) protecting such a child from light and impure air and (2). carefully guarding it from cold as well as (3). Keeping it at an equable temperature and (4). Supplying it with nourishment in an easily digestible form, besides (5) Weighing it once a day, to ascertain whether it is thriving, and (6) twice a day taking its temperature *a rectu* so as to regulate the temperature of the air surrounding it—the Lion or HEARSON'S pattern preferably—admirably fulfils conditions 1, 2 and 3. As soon as a premature babe is born, it should, its face excepted, be completely enveloped in cotton wool and placed in the incubator, with an absorbent cotton pad under its buttocks to catch the fæces and urine. This pad should be changed *twice* daily and weighed to determine the quantity of excreta passed. The window of the incubator should be covered with a dark cloth until the child is nearly full term and on no account should a premature baby be bathed until it can be taken permanently out of the aparatus. Many premature babies do well upon their mothers' milk, which should be drawn off into a BEBOK'S dropper and the child given 1 to 2 drachms at a time at 2 hour intervals. If administration of food by the dropper causes vomiting, *gavage* must be resorted to. Sometimes the mother's milk, even when diluted, does not agree with the child for whom modified milk containing proteid, 0·5 per cent., fat 1·0 and sugar 3·0 per cent., must be prepared by ROTCH'S method and strengthened as the child grows. If modified milk cannot be had, the child must be fed upon humanised milk or condensed milk, diluted if necessary, or upon boiled cow's milk, mixed with 4 parts of water and a teaspoonful of cream to the ounce.—*Med. Rec.*

Climate or Environment as a factor in the Repair of Neurasthenia and Melancholia.

FOR the large class of sufferers from mental depression and the consequences of excessive dissipation, who refuse systematic medical treatment, but are quite willing to try a "change of climate." Dr. J. M TAYLOR thinks environment and suitable companionship is of more importance than the climate itself. As to the advantage claimed for radical geographical changes—escape from a cold winter being the most popular and most conspicuous—he admits that the warmth and sunlight of some tropical climates afford opportunities for outing which cannot be gainsaid, but thinks it is a question whether the removal of the season is valuable for those lacking in vascular and nervous tone, and for whom cold under suitable precautions is an invaluable tonic, while there is nothing like pleasant environment and genial companionship for the rapid and radical case of many nervous affections Besides which for the tens who can, there are thousands who cannot afford to go for a "change of climate."—*Bost. Med. and Surg. Journ.*

Kitchen Bacteriology.

A KÖNIGSBERG doctor, *Privat-docent* Dr. JAGER, recently gave a course of hygiene and bacteriology for ladies, which included practical exercises in applied bacteriology, for instance, in the preparation and preservation of food by methods used in bacteriological work. At the close of the lectures, the hearers were allowed to invite the friends to an exhibition of kitchen products—some raw and some cooked—that had remained in a warm room for periods varying from five to sixteen days, and which were all found perfectly

[illegible] and quality unchanged in appearance and taste. Nor had any complicated procedure been required to attain this result. The method simply consists in: (1) The use of vessels with well fitting, overlapping lids, instead of the inside lids used in kitchens all the world over, which allow stray bits of matter that may adhere to their rim to fall into the food; (2) avoidance of opening the vessels in which the food was kept, or where this was indispensable, careful manipulation as in bacteriological work: and (3) the use of cotton-wool as a covering. Cotton-wool lids had been specially prepared to fit the wide tops of the food vessels, they consisted of a circular disc of cotton-wool, tightly held between two metal rings, the outer of which formed the overlapping rim of the lid. It is to be hoped that Dr. JAGER will find imitators, and that "kitchen bacteriology" may become a study with ladies. Certainly there is much room for improvement in the old-fashioned kitchen methods to which our "family plain cooks" cling with such desperate energy, and which they seem to regard with an almost superstitious reverence.—*Brit. Med. Jour.*

When may Women with Heart Disease Marry.

Dr. KISCH said the chief points to be considered are: (1) the kind of heart disease; (2) its duration; (3) the presence or absence of compensation; (4) the general health; (5) the social position of the patient.

(*a*) They may marry if the disease is not of long standing and compensation is good, and the general health not undermined. They will have during pregnancy, and still more during and after delivery, many troubles due to their heart, but in by far the greater number of cases there will be no danger to life. This applies to well-compensated mitral regurgitation and stenosis, aortic regurgitation, fairly marked sequelæ of pericarditis, and to muscular degeneration if not too far advanced. The patients must also be in a position to spare themselves bodily exertion as much as possible during pregnancy, to avoid mental excitement, and to have constant medical supervision.

(*b*) The prognosis is not so good if the patients are very anæmic or nervous, or advanced in years, or if the valvular disease is congenital or acquired in childhood. In these cases the physician should advise against marriage, or at any rate point out that the disease will most certainly become worse after marriage.

(*c*) Marriage is to be absolutely forbidden as dangerous to life when compensation is failing, or when there is advanced muscular degeneration. In all cases where there is dyspnœa, palpitation and quickened pulse on slight exertion, or marked œdema not disappearing after rest in bed, when there is tendency to arrhythmia, scanty urine with albumin, and attacks of irregular small pulse, coldness of the extremities, nausea, dyspnœa, syncope, &c., marriage is dangerous, whether the cause of the symptoms be valvular disease, diseased arteries or cardiac muscle. Even those for whom marriage is allowable must follow certain rules strictly.

1. Coitus must not be frequent, and must be continued to the end of the orgasm, otherwise reflex heart troubles and depression result.

2. They must not have more than one or two children, as the strength of a diseased heart diminishes with every pregnancy in geometrical progression. If this rule is followed, induction of premature labour will be luckily seldom necessary, since when it is the results are very unfavourable.

THERAPEUTICS AND PHARMACOLOGY.

Chemistry of Diabetic Foods.

THE strictest antidiabetic diet consists of meat soup, coffee, tea, eggs, meat, green vegetables, bacon, butter and about 300 grammes (nearly ℥x) of conglutin bread, which (last) is supposed to contain less than 40 per cent of that bug bear, the carbohydrates, as against the average 60 per cent. contained by ordinary wheaten bread; but Professor VON NOORDEN, finds that the composition of diabetic bread is by no means constant in this dreaded constituent, which is not only much more often in excess of than below 50 per cent., but also frequently exceeds 60 per cent. while Dr. F. KRAUS, shews that while potatoes contain only 15, Jerusalem artichokes 16 and fruit, so valuable an addition to a diabetic dietary, from 4 to about 14 per cent. of the objectionable carbohydrates against the anywhere from 30 to 66 per cent. contained by gluten bread, simple cooking still further deprives many fruits and vegetables of their carbohydrate components. Thus a raw apple that contained 11.7 per cent. of carbohydrate lost 4.4 per cent. when once stewed and 5·6 twice cooked and peaches holding 9·5 per cent. when raw contained only 1·8 per cent. after cooking. Of course the water in which such fruit &c. is stewed should be thrown away and it follows that it is much safer to give definite quantities of natural foods, than even limited amounts of the less palatable and more expensive specially prepared articles of uncertain composition.—*Brat. Med. Jour.*

Unexpected Effects of Bromides.

SUCH absolute belief is placed in the ability of the bromides to control the nervous system that most physicians are apt to attribute the symptoms, induced by these drugs to the primary neurotic condition of the patient. but HODGES points out that, while the potassic-salt is the most powerful and the sodic salt the least toxic of the bromides, the continued use of either or both those drugs increases the irritability of temperament, and directly induces to depression of spirits with a tendency to moderate melancholia or homicidal or suicidal impulses. It impairs the memory and the contractility of the muscles as well as irritates the gastric mucous membrance and disturbs the circulation, while it also promotes an extraordinary susceptibility to toxic effect in cases of cerebral lesions &c.—*Drug. Circ.*

Remedial Value of Veratrum Viride.

LIES in its influence on the heart, whose action it retards in acute inflammatory diseases with a very greatly accelerated pulse. BATTEN found this drug particularly useful in inflammatory rheumatism, and the early stages of measles, scarlet fever and small pox; while in typhoid fever where the heart's action was irregular, it was steadied by drop doses of NORWOOD's tincture of veratrum viride which also proved an excellent remedy in inflammatory diseasesof the chest, notably acute and pleuro-pneumonia and pleurisy. If in acute pneumonia, in the congestion stage the pulse can be kept at or near the normal by this drug, it may often be jugulated or prevented from entering upon the hepatization stage. Even in the second stage of a sthenic case veratrum acts well, since it reduces blood pressure and lessens the heart's action without loss of blood, as in venesection.—*Jour. Amer. Med. Assoc.*

Calcium Sulphide as a Depilatory.

Is so harmless to the skin that it may be left on any length of time without irritating abraded surfaces even when the powder is made into a paste with water. Dr. A. W. BRAYTON, of Indianopolis calls this powder 'calcium sulfhydrate' and says that it can be prepared by the same pro-

cess as calx sulfurata, though the usual way of producing the 'sulphate' is by super-saturating milk of lime with sulphuretted hydrogen.—*Jour. Amer. Med. Assoc.*

For Sick Headache.

DR. ALBERT C. BARNES, of the Philadelphia Polyclinic, recommends the addition of oil of cajuputi to CROZER GRIFFITH'S alkaline aromatic mixture for "sick" headache. The amended formula would read as follows :—

R	Ol. caryophylli	...	3 i
	Ol. cajuputi	...	3 ij
	Sodii bicarb	...	3 ij
	Chloroformi	...	gtt. c xx
	Tr. cardamomi comp.	... qs. ad..	3 ij

S. Teaspoonful to be taken after each meal.—*Gaillard's Med. Jour.*

Successful Treatment of Tuberculosis.

CHARLES WILSON INGRAHAM, of Binghampton, states that, after five years' use in the treatment of all forms of phthisis, the compound given below has proved so satisfactory and generally applicable tha the has made no alterations or additions to the original formula. It is prepared for hypodermic use only, sterilised oil being the solvent used :—

Iodine (chemically pure)	...	gr. $\frac{1}{4}$.
Bromine (chemically pure)	...	gr. $\frac{1}{15}$
Phosphorus (chemically pure)		gr $\frac{1}{100}$
Thymol (chemically pure)	...	gr. $\frac{1}{4}$
Menthol (chemically pure)	...	gr. $\frac{1}{2}$

—*Med. World.*

Ninety per cent. of all cases are reported cured by the Iodine-Bromine compound.—*N. Y. Med. Jour.*

For Goiter.

FREY recommends parenchymatous injections of the following solution :—

R	Iodoformi	... ..	grs. xv
	Ether	.. ...	m. lxxx
	Ol. amygdal. dulc.	...	3 iiss.

M. Sig. Twenty to forty minims for injection into the parenchyma of the gland.

Ointment for Acute Articular Rheumatism.

LEMOINE gives the following formula .—

Vaseline	...	25 parts.
Salicylic acid	...	4 ,,
Sodium salicylate	...	8 ,,
Extract of belladonna	...	1 ,,

To be applied and covered with cotton

—*Nord. Medical.*

Liniment for Myalgia.

R	Aq. ammoniæ	...	3 iiss
	Ext. hyoscyami, Ext. opii	aa	3 ss
	Ol. thymi	...	gtt. v
	Ol. camphorat.	...	3 iii.

M. Sig. Rub painful parts morning and evening.—*Med. News.*

Headache Dependent on Ovarian Disease.

R	Ammonii bromidi	...	3 vi.
	Extracti hydrastis fluidi	...	3 ss.
	Tincturæ gentianæ compositæ	...	3 iss.
	Aquæ	...	3 iv.

M. S. Dessertspoonful thrice daily

—SINKLER.

Correspondence.

INDIAN AND ANGLO-INDIAN *VERSUS* BRITISH PLAGUE DOCTORS AND PLAGUE NURSES.

To THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—All through Nature, the mother, is ready to lay down her life for her offspring from whom she takes nothing though she gives them *everything* until they are big and strong enough to fight life's battle unaided, and can return her the compliment of protecting her in her declining days or in the hour of danger. Every other Christian country looks to her own first, her mixed bloods next and lastly those she has won by the sword ; but England, kind mother England, who spilled rivers of blood to abolish slavery and spent millions of sovereigns to reclaim savages from paganism forgets, or is made to forget, that but for her Indian mixed-bloods (*i.e* Eurasians, East Indians and Anglo-Indians) who willingly laid down their lives in her defence, her mighty Empire in the East would have been swept out of her hands in 1857. Yet while she lavishes favors and bestows almost unlimited power on the descendants of the conquered and the mutineers, she takes everything that can be taken from the children of those very Eurasians, who helped her win and keep India, and in remembrance of their parents' brave deeds and invaluable services to her, bars them from her army, shuts even the doors of her ships' forecastles against them, and ostracising them from every one of the officia, posts *worth* having, now extends the cruel and totally undeserved *mene mene tekel upharsin* to their sisters.

I preach no sedition, though I feel the position keenly as I belong to a warrior race, whose pen, sword and brain have for generations past been *always* ready in Britain's Cause. My people piloted her mercantile and war ships through the dangerous waterways of Bengal. We backed her with our swords in dreadful, 1857, as well as placed our purses at her disposal and fearlessly wielding our pens against her defamers or detractors, furnished a large proportion of her Medical and Judicial Services. To what end ? GOD knows. Wrested of my landed properties through State maladministration and myself hounded from pillar to post, I have the consolation (? ? ?) of knowing that my children who, though white skinned, have been born in India, can never aspire to anything and can barely hope to have sufficient to keep soul and body together when they grow up The merchant offices will not give them work, except on starvation wages. I cannot send them to England to pass out in the Covenanted Services, because, through no fault of mine, I have not the means to do so. A Mahomedan or Hindu can enlist and win a commission ; but *my* boys cannot, because though Indian-born, they are not Indians, and not being British-born have no claim to British privileges. If my children study medicine and pass out ever so high, they have the disadvantage of having government doctors compete against them, in private practise, by gazette notifications of countersigning medical certificates," and unnecessary charitable dispensaries that deprive the non-officials of *thousands* of patients, and they constantly run the risk of their claims to recognition being deliberately ignored in cases of state need, as has been done in this present

plague-panic, where indigenous and highly educated as well as experienced talent has been cruelly and criminally passed over slightingly, while British doctors and British nurses who know absolutely nothing, except in doubtful theory, of the diseases and customs of Hindustan have deliberately been imported to deal with plague and plague patients in India. Is anything more ridiculous, and yet could there be greater injustice or worse cruelty.

I am not the only father whose heart bleeds for the hard future of his children. Hundreds, yes, thousands are as similarly situated as I am. *We* know and feel that we are unjustly and unkindly treated. Does England know it? I think not, India is one mob of officialism which rides roughshod over us. If we complain we are boycotted and made to run the gauntlet of unnumbered woes. The so-called Inquiries or Royal Commissions on Labor, Opium, Eurasians &c., are impious farces, from which everything that savors of contradiction of preconceived official fads, is carefully excluded, or the truth as carefully occluded by meaningless verbosity, so that Parliament can see India not as India really is, but as a few interested officials choose to paint her.

And even though a large number of officials are in verity Anglo Indians or Eurasians, they will not admit it, lest by being removed from class A of the Register (where they have not the right to be) they would be denied the privileges extended to the British-born or British-educated, and come under the withering definition :—"Nobody there but Eurasians and shady people of all sorts. (Eurasians are). Children of mixed blood Fathers, English—mothers, niggers. Deuced pretty creatures some of them, by-the-bye But nobody (nice *i.e.*, respectable) goes to see *them* of course Caste is a great thing in India. I'm not sure but the niggers are right after all about it" hurled at them by writers of the Captain FRED WHITTAKER sort, whose ideas of physical geography are particularly hazy, when they talk of reaching Bombay *within* three days by rail from Darjeeling, where they claim to have seen Rajahs driving about in four-in-hand drags Rubbish like this is sown broadcast among the masses of the English at Home, till the entire nation (*i.e.*, such as have not been to India) have got to believe and the very soldiery look down on the Eurasians as "Half caste," a term now converted into so opprobious an epithet of abuse, that when one Eurasian wishes to mortally offend another he calls him a 'Half Caste An official therefore who openly avows himself a Eurasian is a man of no small courage, for by such an admission he courts the enmity of his own cloth [illegible]

Look at another side of the picture, a woeful though true one. Loss of caste in Indian views is forfeiture of happiness in the world to come. The moment an Indian woman marries a European her immediate relatives look upon her as spiritually and bodily DEAD. Her name is never mentioned in the home of her girlhood and her priests curse her Who wrought this desolation. Her European husband to whom she bears children whom their paternal aunts looks down upon if they are dark skinned but, perhaps, make much of if they are white. Children are apt learners. This fish and fowl business grows in them and it is no uncommon thing to have brothers and sisters disowning each other on account of "shades of color" and often a son who has been sent to England for Medical and returned to this country in some official capacity, will refuse to recognise his Indian mother.

I could for the edification of Lord GEORGE HAMILTON (who by the way has not yet redeemed a fraction of the promises he made you last year) mention several instances of this among the immaculate *Indian Medical Service* who are mainly responsible—if not wholly so,—for the unpardonable sin of sending to England for plague doctors and plague nurses when they could EASILY and at much less expense, have found them among their own brothers, sisters and cousins in India What their real reason for excluding indigenous talent is I cannot tell, unless it be, they thought it unwise to associate themselves or acknowledge direct kinship with folk who, knowing that there is no such thing as a thorough blood man or person of unmixed parent descent in the whole world, throw conventionalities to the winds, and like me are not ashamed to admit himself or herself an Anglo-Indian.

Yours &c, R. C.

CALCUTTA, *15th August 1898.*

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THE C D ACTS IN INDIA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—I have read X Y Z.'s letter in your last issue, and it appears to me that if she had nothing of more importance to say in reply to my criticisms on the Memorial for which she and 78 other medical women are responsible, the golden rule of silence would have been the better course.

She thinks however that one of my statements is directly contradicted by Lord LISTER and accordingly his authority is brought forward to confound and crush me, that the contradiction exists only in her own imagination will not I think be very difficult to show.

In the Memorial it was stated that there were certain distinctions between venereal disease and other contagious diseases, in that, "other contagious diseases are, as a rule, easily recognised, rarely or with difficulty concealed, treatment is voluntarily sought "etc,

From these propositions I ventured to differ and said "it is manifestly absurd to state that veneral diseases are more difficult to recognise than typhoid fever"

To prove that I am wrong in this opinion, Lord LISTER is quoted as saying "In the early stages of the complaint (venereal disease). there is no general effect whatsoever produced upon the system The person appears to all ordinary examinations perfectly healthy, and it is only by special examinations that evidences of the disease can be obtained."

This simply means that it is very difficult to recognise venereal disease *without a special examination.*

What my statement amounted to was, that after a thorough *examination* venereal disease was more easily diagnosed than typhoid fever.

Why X. Y. Z. should assume that my statement referred to such a barren topic as the relative difficulties of recognising different diseases *without examination*, as for instance by watching people pass in the street, I am at a loss to understand.

It will be observed that Lord Lytton draws a distinct line between *ordinary* examinations and *special* examinations, and to explain this it is necessary to remember that he was addressing a non-medical audience and that under the circumstances the words were proper and conveyed a special meaning. For the physician, however, no such distinction exists, every examination for the detection of disease is a *special* examination directed to the organ or organs diseased; if an ordinary examination is to be understood as one which carefully avoids any investigation of the affected part, then there is no such thing.

From this it is clear, not only that Lord LISTER's statement does not clash with mine, but that they have nothing in common.

There is, however, another sense in which venereal disease is more easy to recognise than most of the other contagious and infectious diseases, that is by the person affected; in the majority of cases people suffering from venereal diseases are aware of it, it is the reverse with the other diseases referred to.

With respect to the questions of concealment and voluntarily sought treatment, the statements in the Memorial are true for England, they are not true for India; and as the Memorial is wholly and solely directed to India, it is certainly misleading to argue on an English basis

Further the favourable conditions that prevail in England are entirely due to compulsory legislation, and it does not appear to have thrown much work into the hands of the quacks as X. Y. Z. assumes it would do in the case of venereal.

A large part of the letter is taken up with exposing the difficulties in the way of dealing with venereal on precisely the same lines as the other diseases that are notifiable in England; but as it has always been considered necessary to draft a special act for dealing with venereal, which shows that there is no intention of trying to deal with it on precisely the same lines, this part is irrelevant.

To my mind the most important thing about venereal disease is that it is chiefly fostered and spread by a special, distinctive, and separate class; and that this class has, in India, become a source of danger not only to the British Army, but to innocent women and children at home. This state of things, which is nowhere denied, appears to justify the strongest repressive measures.

Such measures are more likely to succeed under the simple conditions that prevail in India, than in the large European capitals.

It is futile to deny that such measures can have any good effect, for, putting my own experience aside, I take the action of the Government as the strongest proof that the evidence before it was overwhelming in its strength, otherwise no Government would have ever faced such an unsavoury and unpopular task.

X. Y. Z. says it is interesting to put some statements of M. LECOUR's which she quotes, beside a statement of Dr. COMMENGE, quoted by me. It may be interesting, but what the former says does not refute the opinions of the latter, neither does it prove that legislation is powerless to *check* venereal disease; if it proves anything it is that the administration was not quite up to its work. There is nothing to show to what extent venereal diseases would have increased, had all legislation been relaxed.

X. Y. Z. says "there is no reason to think the state of things in Paris is any better to-day" than it was 24 years ago; but on the other hand there is equally no reason to believe that it is not.

The words "the trade of prostitution" appear in this letter in inverted commas, as if it was a quotation from my former letter, but it is not, the phrase is not mine.

I am a bit puzzled by X.Y.Z.'s personal allusions, she says that my wrath was specially aroused by one portion of the Memorial, that another made one too indignant to be civil, and that I treated the moral question with cheap sneers, now I think that any one who reads my letter will acquit me of these charges, which I consider quite unfounded and uncalled for.

I can find no evidence of wrath or indignation, and as for sneers, there are absolutely none, cheap or otherwise.

Yours &c, A MEDICAL MAN.

P. S.—In an original article which appeared in your journal on the 1st June 1898, Dr William Huntly says in the second paragraph. "A medical man begins badly He says 79 medical ladies: the number noted in the *British Medical Journal* for 26th February 1898, is 73 It would hardly be worth while noting this, only that loose manipulation of figures is and has been characteristic of his party."

Alas! for accuracy and the *British Medical Journal*, the number was 79 after all, as X, Y Z's letter shows, perhaps Dr. Huntly will be glad of the occasion to retract. By the way I never made use of the obnoxious word *ladies*,—Medical ladies!! Does Dr. Huntly think there is anything offensive in the word woman?

Yours &c., A MEDICAL MAN.

GOVERNMENT DOCTORS AND PRIVATE PRACTICE.

I.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The *Eastern Guardian* the leading Anglo-Indian newspaper of Madras, has the following Editorial on the above subjects in its issue of the 2nd July:—

The Indian Medical Association has memorialized the Government of India that "the public needs of the inhabitants of large Indian cities, more specially provincial capitals and hill stations, have materially altered during the past ten years, and that in all these centres there is a sufficiency of British medical practitioners, as well as highly-trained and fully-qualified Indian graduates of medicine, to supply the needs of the public, both European and Indian, and that, therefore, the time for withdrawing the privilage of private practice to State-paid doctors has unquestionably arrived." We summarize the views on this important matter. We know of no valid reason why a country, which can support its own tradesmen and schoolmasters, its own chemists and lawyers, should be so hopelessly unable to find employment for doctors. The very fact that private men are now to be found in almost every big station in India clearly indicates that there is work for them, though the conditions of service may not be entirely in their favor. It is in the power of Government to readjust a policy which may have been defensible years ago, but which is now entirely out of place in the present circumstances of the country. One of the objections to the abolition of the big Civil Surgeoncies is said to be that all Government servants are entitled to the services of an official practitioner, either free or at reduced rates, and they insist upon having the best men

available—a very dog-in-the-manger objection at best. There is no reason to suppose that private doctors would necessarilly be bad any more than the Government ones will be good. All Civil Surgeons' are not clever while some are decidedly the reverse. Nor need we fear that Government servants will have to pay more, because the competition for patients in every large city will be sufficiently keen to keep fees within reasonable limits. Besides there is no reason whatever why any particular class of people should be pampered in their demands for this, that, or the other thing. The man who enters Government service now will be equally willing to do so whether he gets free medical attendance or not, so great is the struggle for existence. The same argument applies to the second objection—that if private practice were prohibited an inferior class of men would enter the Indian Medical Service. This is not so certain. Given a fair prospect in life, and we are perfectly certain there would be no deterioration in the existing *personnel*. Any unprejudiced individual looking at the conditions of modern life must acknowledge that very few men are in a position now-a-days to decline half a loaf because they cannot get the whole. When London M.D's. are content to act as club doctors, it is inconceivable that their sons will refuse the assured prospects of an official career in India simply because some perquisites have been withdrawn from it. The men who shook the pagoda tree years gone by, would probably have laughed at the idea that their better educated descendants would be perfectly happy under less fortunate conditions, and it is quite likely that the generation, to come will regard us with the envy as we do the one that is past, and withal be content.

Yet a third objection is that the conditions under which he hold India are such that any reduction as will be inevitable, in the numerical strength of the Indian Medical Service would be fatal from the point of view of public exigency. That there is some force in the objection at first sight we admit, but it should be borne in mind that as British rule in India grows in years, its military aspect must diminish, as civil power tends to increase. We need not be thinking of riots and mobs which concern the police more than the military, and which cannot possibly affect a technical discussion such as this, even though their frequent occurrence should serve to remind us of the want of cordial relations between the rulers and ruled. It is to the chance of real war breaking out that the objection specially referred. The obligation of the Civil Surgeon to revert to military duty whenever occasion arises would not, of course, hold with the private doctor, and this might seem a serious objection to his recognition by the Government. It would, however, only apply in the case of a large reduction in the Indian Medical Service, and not to the experimental measure to abolish Civil Surgeoncies only in the large cities of India. The Indian Medical Association does not go so far as this, for while claiming more work for the private practitioner, it leaves the Civil Surgeon precisely where he is. It seems to us, however, that if the medical administration of a district which nowhere is very onerous, can be conveniently delegated to the skilled members of the Subordinate Medical Service, it would be absurd to allow the dim shadow of a big war to interfere with an experiment from which much good might be gained; neither can we imagine that the abolition of, say, a dozen appointments will materially endanger the military needs of the country or diminish the efficiency of its war footing. Clearly the Indian Medical Association does not go far enough. The object was to find an opening for those Anglo-Indian youths whose parents, while quite prepared to give them the best available medical training to be had in India, are yet unable to send them to England. Whether they "can be utilised in the place of some of the men who now come out from Home is surely well worth an intelligent trail."

The above article gives a very fair view of the case, and I think it greatly strengthens the cause of local practitioners.

Yours &c., MADRASSI.

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II.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—While it is perfectly certain that a Government aided paper like the *Pioneer* is never likely to run down the baneful system of allowing state paid servants from doing private work for remuneration, it is a safe criterion of honesty to find a sturdy independent journal like *The Bengal Times* express its opinion on the question of "Government doctors and private practice. The following is an editorial from a recent number of the *Times*:—

"Where a field like Calcutta, or any town with a large Christian community offers a field for private medical practice, we consider it an abuse of privilege for a State-paid doctor to compete with private practice, and to try and monopolise those few crumbs, which are left untouched, by their overworked and fatfed seniors. Our reasons are obvious. A State-paid officer has opportunities of obtaining introductions to families, amongst those in circumstances to remunerate his visits, which a private practitioner, unless possessed of considerable social influence, would rarely find means to utilise. He would necessarily have to work his way up from a humble class of patients, possibly, unable to offer him his orthodox guinea—or its Indian equivalent—a gold mohur—per visit. And for a long slice out of his life, he might continue to be a struggling man, living from hand to mouth It is a question of years for a man to rise in India, however talented and skilful. And in this wise, London and Calcutta differ widely. In our British Metropolis, a mere accident has led to fortune, through a rich *clientele*, rapidly acquired by a multiplication of introductions. In Calcutta, such a stroke of good luck is so highly improbable, as to be next to impossible. Hence, a private, or non-official physician, begins his career faced by unfairly-advantaged competition, by men of assured income and connexion, and he feels handicapped to obscurity. He must, to emerge from a station in which his talents are buried, either submit to rub along upon a pittance that means barely bread and cheese to him—and not too much of either—join some fashionable physician, if he can obtain a chance, or add to his small means by some work not quite within professional prescription, although, perhaps, not actually exclud-

ed by any rule of practice. He finds himself in a false position, with merit unrecognised, nay, without an opportunity of recognition; without private resources, and with a hopeless vista of grappling with poverty, which indubitably implies a reproach, that often, to ignorant, or unreflective minds, suggests absence of capacity, for, how can a *poor* man, they argue, be a *capable* man? If capable, he would, as a matter of course, be well-to do. This is how many argue, and it would be difficult to persuade them otherwise. In but too many positions of life, we observe this disposition to sacrifice talent, homely clad and with a light purse, to oppulent noodledom, riding in a well-appointed Brougham. Thus, in all respects, a non-official competitor is forced into a different and disadvantageous starting-point, far behind his official rivals, who canter ahead unembarrassed, without an anxious thought, whilst he is fighting his way, step by step, with possibly, a sinking heart, or at least, with chilled hopes, almost despairing of an eventual position of independence. Again, a private practitioner is under another serious disability. He is in a special sense, a public servant, and is expected to be ready to respond to any summons for his aid, be it at night, or in daylight; in sunshine, or in storm. He may imperil his health and his life, and all for a patient who postpones payment of his fees, till, out of sheer disgust, he abandons his claim. Not so, a State-entertained doctor. He is a *public servant also*, but only *technically* so. He need not turn out of a comfortable bed to face a storm, he need not have a misgiving as to his fee. He may refuse to attend a call, and decidedly decline to quit home without his legitimate fee, cash in hand, is paid, before he will consent to stir out of doors. He can afford to be independent, since his Government salary suffices for his comfortable support, and his extra fees are mere windfalls whilst, to a non-service practitioner, they mean daily bread. Thus, again, his position and prospects are subjcet to a heavy discount, by comparison, and seeing at what odds competition with well salaried men—official practitioners—is possible, we are clearly of opinion Government should, in all fairness, equalise them. Outside large concentrated groups of social fraternity, as in Mofussil towns, Government doctors—Civil Surgoons—have never been known to decline attendance, though perhaps, with a certainty before them that even a faint hope of remuneration could not be entertained rationally. We have seen them at patients' bedsides, day and night, not merely bestowing their skill freely, without thought of a fee, but supplying from their stores requisites for invalids, such as nourishing food and medical comforts, and wine. Humanly reckoning we have seen many a life saved through, and by, their philanthropic ministrations. Theirs is, indeed, a life of true charity, inspired largely by noble impulse, emanating in a noble profession."

I find *The Simla News* and the *Mofussalite* siding very strongly with the above views.

Yours &c., W. C.

CALCUTTA, *4th August 1898*.

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THE ARMY MEDICAL STAFF IN ITS NEW COLORS. HOW DO THEY LOOK?

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The Warrant has been issued that has changed the designation of the Army Medical Staff to that of the Royal Army Medical Corps, and given its officers substantive instead of relative rank. We are informed that even Her Majesty's interest was so far enlisted as to have prompted her to dub the Corps as Royal. There ought accordingly to be great jubilation in the ranks of the corps thus honored, and it ought to give them immense satisfaction that, by combined and persistent action they have forced the authorities to recognise the fact that changes in the corps were imperative.

I am not a pessimist, but I confess, I view with suspicion the acts of Government affecting the Medical Department of the Empire generally.

If you will permit me, I would essay a forecast of how the new Warrant is likely to operate, but before doing so, it will be instructive, I think, to take a retrospect of things medical.

When some eight years ago, the Subordinate Medical Department moved for a change of designation and an increase of salary, the old heads amongst us prophesied "You'll get the name, but not the pay." How far the prophecy has been fulfilled, your readers know.

A little previous to this, the Camperdown Commission elaborated its double-barrelled and magazine rifle titles for the decoration of the Army Medical Staff. There was great jubilation then, but mostly amongst the junior officers or rather the unthinking section of them. The hated appellation 'Doctor' was to be discarded forever from the army; top-boots and spurs became very much in vogue at the morning hospital visit. TOMMY ATKINS was more frequently called to order for his non-observance of the precise form of respect due to a Surgeon-Captain, and interrogated as to whether he would speak or act in the same manner before an officer of his corps &c., &c. At times and places, even the qualifying designation of 'Surgeon' got into the habit of being dropped. I remember the amused smile of a combatant officer who entering a hospital one day asked for the "Doctor" and was informed that he would find "the Major in the office." To short serviced flitting TOMMY ATKINS, the compound titles as we all know are a perpetual source of embarrasment. The "Doctor" the "Major Doctor" the "Captain Surgeon" the "General Doctor" are shibboloths in T. A's. mouth that he never fails to stammer over. It soon became evident to even the most junior officer of the Army Medical Staff that they had received the shell without the kernel, and a very rotten shell at that. They gained nothing and I think lost much. Assumption of the prestige of a rank that only existed on paper and excited universal ridicule, "got up the backs" of the combatants, and brought matters to such a degree of tension that the provision of the present Royal Warrant will hardly relieve, indeed is likely to accentuate. This is the retrospect, now for the forecast.

The doctors having obtained substantive rank and having been made a Royal Corps, how will they stand in the future, as regards their relations with combatant officers? A Lieutenant of the Royal Army Medical Corps becomes a Captain after three years' service, whilst it takes a combatant officer, three or four times that period to attain the same rank, and perhaps another decade and a half to attain his majority. Here is a state of matters anomalous enough to excite more than comment.

Rank carries power and influence everywhere in the Army, but what power or influence can it confer on a body

of non-combatant officers, whose votes in the Army in peace time or in war must of necessity be very small? Officers of other departments, like the Engineer, Commissariat, Ordnance &c., are all combatants and should the occasion arise, can take their places as leaders of a fighting post. The Medical Officer through no fault of his, is nevertheless unfitted to fill such a post.

The organisation of other departments is such that their officers are rarely, if ever, thrown into situations that render the precedence of rank a matter for consideration One instance will suffice to show what I mean. A Captain commands a post or station; all the officers present are his juniors, with the exception perhaps of the medical officer, who may be senior in rank and service, but he must obey, where he ought to command.

Unlike other Departmental officers, the medical officer is brought into close and daily relation with the soldier, but his authority over the latter is virtually nil, and the soldier knows it.

Viewed from any standpoint, it appears to me that the officer of the Royal Army Medical Corps has gained virtually nothing over the officer of the Army Medical Staff, and that his future is beset with tribulations worse than those of the past. He has set himself up in opposition to a hierarchy with a prestige too firm to be shaken, too jealously guarded to be lightly attacked, and a hierarchy with a history as old as England herself and with almost absolute power at its back. Until the Medical Officer can take his place as a combatant leader, his contention to stand on the same platform as the other officers of the British Army will only be met by opposition, or at the most, by concessions that it would appear do not satisfy the ambition of the Medical Staff.

Yours &c, SUB.

:o:

MILITARY ASSISTANT SURGEONS, A PROTEST.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Verily we have often to be as watchful of the tender solicitude of our friends for our welfare, as of our enemies; and our friend (in your last issue) in a shortsighted attempt to keep pace with the times in demanding for us real military rank, would fain undo the sole achievement of our struggles for the last nine years.

Let us consider a moment what it is, he proposes. He would renounce our present honorable designation of Assistant Surgeon with all that it implies and the splendid history attaching to its past—for what? For that of conductor forsoothe? And why? Because in his opinion, and that of a few others, the latter designation implies a solid and recognised military rank!! Pitiable delusion! I can hardly believe that he has ever given the subject serious consideration.

Why, let me ask him, should the designation of conductor any more than that of Assistant Surgeon imply any military rank? Merely because it is older! With as good reason might these same departmental conductors be indignant that they were not designated, as in the Royal Navy, Boatswains, carpenters and head cooks! Logically this is the outcome of our friend's contention.

As a matter of fact the title 'conductor' is no more a military rank than any of the others quoted. No one could by any stretch of imagination impart a military ring to the sound.

It is common to, and therefore suggestive of, cabbies, 'Bus and Railway guards, just as ours is that of the honorable profession of medicine. As far as the Army is concerned they are each and all merely equivalents, arbitrarily fixed, on the creation of a new class in the Army, intermediate between the recognised Commissioned and Non-commissioned ranks and collectively colypt "Warrant officers"—a mere way out of a difficulty created by the necessity of gilding the soldiers' prospects without actually conferring the commission on them, when employed in responsible duties other than those appertaining purely to the 'rank and file.' But it is invariably employed now officially as a standard of comparison, I may be told. Quite so. Nevertheless merely by virtue of its more ancient date, and the greater familiarity of officers consequently with the status the term implies. Now however, all officers are fairly acquainted with the status of Assistant Surgeons as Departmental Warrant Officers, yet when a question of seniority arises a reference to a standard classification of Warrant Grades becomes necessary, and this is to hand in the old classification of Conductor and Sub-conductor with which they are familiar.

How our enemies, over whom we have so lately triumphed after a severe and protracted struggle that at one time threatened a crisis, must laugh in their sleeves at this wretched diversity of opinion among us. Well might they chuckle over the belief that they have only to give us rope enough to see us hang ourselves.

We hold an honorable designation to which we have proved our right and title. For God's sake, let no mania deprive us of it!

I cannot believe your correspondent's voice is representative of any material section of us; and it is only our unfortunate and characteristic apathy I am sure, that prevents you being flooded by indignant protests against his absurd proposals.

Yours &c, AN OLD ASSISTANT SURGEON.

:o:

MEDICAL SLANDERERS.

TO THE EDITOR, "INDIAN MEDICAL RECORD"

SIR,—Never before has there been such a crushing necessity for real sledge hammer hitting at certain official scandal-mongers who spitefully prostitute the prestige of their position by scandalising their non-official brethren before the patients of the latter, when they chance to come under official treatment in our public hospitals. Allow me to record two instances of dishonorable and unprofessional conduct on the part of an official in a hospital in this city.

I. A patient who had been under the care of one of the leading non-official practising physicians of Calcutta, was compelled to go into hospital because of the increasing medical and nursing fees of his case, which amounted to over fifty rupees a day. After a few days residence in the hospital, he asked the doctor if he would kindly have a consultation with his own private physician. The official doctor got very angry and said "Certainly not, do you think I am going to consult with a coolie doctor." Allow me to add that this so-called

coolie doctor is a British M.D. and enjoys a most lucrative practice in the city.

II. Another private physician had one of his cases enter the same hospital. The same official doctor when reading over the notes of the patient's case, remarked "So you were under Dr.————'s treatment. No wonder you got worse, you should have gone to a government doctor."

That our public hospitals are badly managed, that patients resorting to them are treated with scant courtesy and marked neglect by men, who though heavily subsidised, scamp their official duties in their mad rush after private practice, are facts to which every non-official European who has unfortunately been compelled to resort to the public hospitals for treatment, is able to testify to, but that these medical officials should have recourse to the unmanly and cowardly methods which they employ to injure the professional reputation of their non-official brethren, is conduct that cannot be too publicly and too strongly denounced in the interests of the public, our hospitals and the credit of the medical profession itself.

Yours &c., E. F. G.

CALCUTTA.

———:o:———

A POOR MAN'S VERY HARD CASE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Will you kindly allow me a little space in your far famed Journal, as I wish to have my case published and to see whether there is any redress for me.

I am a Military Hospital Assistant and was doing duty under Surgeon-Major E Cretin in 14 and 13I., stationed at Jhansi. On the 19th of January 1897, I was disgracefully abused by him without any cause. On bringing this to the notice of the Lt.-General Commanding the Forces, at Naini Tal, on the 14th June 1897, I was told that I could leave the Service at once on my refunding all salaries received by me since July 1891, or that I could leave on the 1st July 1898, on the completion of seven years' service, without incurring any penalty.

I accordingly at the time specified applied for my discharge, but my request was not granted. On repeating the application however, I was merely ordered to appear before a Medical Board.

The privilege leave which I was obliged to apply for owing to a very pressing private matter, and to which I was fully entitled, was also refused me With reference to the Medical Board I fail to see any necessity for my appearing before it, my term of service having expired on the 18th July 1898, as I had already given notice. On the 15th of that month I resigned my situation, after twenty years' service.

I have also to state that I have been put to further trouble in being ordered about to various stations, on various duties, having had no less than a dozen transfers within a year. Besides this, I was not fully recouped for my travelling expenses. For example, in the course of my last transfer from Golaghat to Kohima, I actually, expended Rs. 40 for cart-hire as no coolies were available, and all I received from Government was Rs. 15 only, causing me the loss of Rs. 25, the whole of my monthly pay on a single transfer, to say nothing of my out-of pocket expenses on other journeys. Thus I have lost both money and respect, and in spite of all this, my resignation has not been accepted. I therefore most respectfully beg that you will see your way to bring my hard case to the notice of the Government of India.

Yours &c. Z. J. K.
Hospital Assistant.

MANIPORE.

———:o:———

PAYING THE DEAD TO ROB THE LIVING, WHO'S TO BLAME?

TO THE EDITOR, "INDIAN MEDICAL RECORD"

SIR,—From the general orders, Military Department, Simla, dated 24th June and 1st July 1898, it would appear that the medical subordinates therein promoted, lose a day's pay each as the men for whom the promotions are made, were born on the 20th and 8th September 1842, respectively, and the promotions are made from the day after, namely 21st and 9th September. Can you as any of your readers explain this error? A man born on the 20th Sept. 1842, completes his 55th year on the 19th Septr. 1897, and heretofore the promotions have been made with this in view, whence the necessity for change! Then again do the men on retirement commence to draw retired pay on the 20th and 8th Septr. or from the 21st and 9th. I take it that the date of retirement would be the date of birth, 20th and 8th, and retired pay, if so all these subordinates have lost a day's pay which goes into the government's pocket, as the men retired have been permitted to remain on for a day, *sans raison.*

Yours &c., BEGGARED.

———:o:———

TREATMENT AND OPINION WANTED.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—What is the best treatment to adopt in cases of horny feet, which very often crack and bleed, and then become so painful, that the patient is unable to walk or even wear a shoe.

I have treated such cases with warm water immersion, shaving of the corns, application of KEMP'S corn and wart remover, but without effect.

The last named seems to remove the corns, but when left alone for say about a month, they grow again and get as bad as ever.

I have known KEMP'S corn and wart remover to effectually remove small corns on the toes.

Yours &c., MEDICUS.

BASEIN, *23rd August*, 1898.

Book Reviews & Medical Trade Notices.

THE DISORDERS OF DIGESTION IN INFANCY AND CHILDHOOD.

BY W. SOLTAU FENWICK, M.D., B.S., M.R.C.P.
Physician to Out-patients at the Evelina Hospital for children, London, &c.

(Publisher: H. K. LEWIS, London, pages 378, demy 8vo., Price 10s. 6d.)

THE above forms the second of a series of monographs upon Diseases of the stomach. The first part of the book is devoted to the physiology of digestion in early life, and the various diseases which are apt to arise from the neg-

life, of the fundamental laws regulating infantile diet and hygiene. The remainder of the work is occupied with a description of the diseases of the stomach which are encountered during the period of childhood, while the appendix contains some account of the methods employed in the chemical examination of the contents of the stomach, &c. A copious index completes this useful work.

THE DISEASES OF THE LUNGS.

By J. K. Fowler, M.A., M.D., F.R.C.P.

Physician to the Middlesex Hospital and to the Hospital for Consumption and Diseases of the Chest, Brompton, &c., and R. J. Goodlee, M.S., F.R.C.S., *Fellow and Professor, University College, London, Surgeon to University College Hospital and to the Hospital for Consumption and diseases of the chest, Brompton. Surgeon in ordinary to H. M's Household.*

(Publishers: Longmans, Green and Co. pp. 715. Price £1. 5-0)

Although not aspiring to the position of an exhaustive treatise on the diseases of the lungs, this valuable work, the joint production of a Physician and Surgeon, presents a continuous picture of the Medical and Surgical aspects of Pulmonary disease, Bronchitis, Asthma, Pneumonia, Pulmonary Tuberculosis and the other forms of Lung Disease are fully dealt with, while the introduction of the anatomical chapter is calculated to prove very useful. The work is excellently got up, being bound in dark grained cloth, with red edges.

MANUAL OF OPERATIVE SURGERY.

By H. J. Waring, M.S., M.B., B.Sc., F.R.C.S.,

Demonstrator of Operative Surgery, St. Bartholomew's Hospital, London, &c., (pp. 661).

(Publisher . Y. J. Pentland, Edinburgh and London.)

This work which was written with the object of serving as a text-book for the classes in the Operative Surgery Department of St. Bartholomew's Hospital, provides a complete handbook for the use of students. For their benefit is added a description of operations which cannot easily be performed on the dead subject. Most of the illustrations—and there are over four hundred in number—have been prepared specially for the book, which, quite apart from its own excellence, has the author's name as a further recommendation.

DISEASES OF WOMEN, A TEXT BOOK FOR STUDENTS AND PRACTITIONERS.

By J. C. Webster, B.A., M.D., F.R.C.P.

Demonstrator of Gynecology, M'Gill University Montreal, &c., &c.

(Publisher: J. Pentland, Edinburgh and London.)

With a view to give prominence to the scientific basis of each subject under consideration, the admirable work before us bestows the most careful attention to modern researches in sectional and dissectional anatomy, histology, embryology, comparative anatomy, pathology, and bacteriology, in so far as they bear on the diseases of women. Clinical features in their widest relationships are studied, and assigned their proper proportional values, while in the case of therapeutic measures not yet thoroughly tested, extreme caution is insisted on. The illustrations from the author's original drawings, will be found to possess a high teaching value.

(1) IODOFORMOGEN; AND (2) TANNALBIN TABLETS.

(B. Kuhn, 36, St. Mary-at-Hill, E. C,)

The idea of combining iodoform with albumin, giving rise to a compound which has been called Iodoformogen, is ingenious and one presenting certain distinct advantages. Thus iodoformogen has little or no smell, is non-hygroscopic, and occurs in the condition of a fine powder, which it is said does not "lump." In short, iodoformogen would appear to be much superior for the purposes of dressing wounds to iodoform itself, as while exhibiting the antiseptic properties of iodoform, it permits of more uniform dusting, the grains clinging more intimately to damp surfaces than is the case with iodoform. Tannalbin is now well recognised as a useful but non-toxic intestinal astringent. It is particularly serviceable for checking diarrhœa. This is to be attributed to the fact that while it is insoluble in the gastric juice, producing no disturbance in the stomach, yet it dissolves slowly in the intestinal fluids producing an astringent effect. The compound is prepared from albuminate of tannin by exposure of the substance to a temperature of 110°,or 120° C. for five or six hours. The tablets contain five grains of the compound and they afford a very convenient means of administering it.

EFFICACIOUS GERMAN PREPARATIONS.

Farbenfabriken Vorm Friedr. Bayer & Co. Elberfeld (Germany).

It is a matter of some difficulty to select for special mention any of the valuable preparations manufactured by this Company. Amongst others we may name Iodothyrine which not only contains the active principle of the thyroid gland, but also a fixed amount of Iodine compound. It has proved of inestimable value in myxœdema, obesity, psoriasis,and eczemas of sorts and may be taken with equal benefit by adults and children.

Another preparation of theirs is Iron-Somatose which is a specific for chlorosis and anæmia, as it contains in an easily soluble form albuminous substances combined with Iron.

Milk-somatose which contains the albuminous matter of milk combined with tannic acid is of great service in chronic disorders of the digestive apparatus.

There remain some other preparations of equal merit, but want of space precludes us from noticing them in this issue.

NEURALGIA.

Many cases of this disease are due to anæmia, which is generally associated with indigestion. The employment of Kasagra (Stearns' Cascara Aromatic) Hæmoferrum-Stearns, and Wine of Cod Liver Oil will be found of a great advantage in the treatment of this class of cases.

Sciatica, pleurodynia and other forms of neuralgia yield quickly to this treatment.

Government Medical Gazettes.

GOVERNMENT OF INDIA.

To be Brig.-Surgn.-Lieut.-Col.

MADRAS ESTAB.—Surgn.-Lieut.-Col. Thomas James Hackett Wilkins, 14th July, 1898.

Surgn.-Lieuts. to be Surgn.-Capt. 29th July 1889.

BENGAL ESTAB.—John Stephenson, M B.; Frank Needsham Windsor, M.B.; Walter Barrie Turnbull, M B.; Ernest Edwin Waters, M.B; Abser Leventon; Philip Francis Chapman, M.B.

MADRAS ESTAB.—Frederick Linton Blenkinsop, M.B.; Edmund Morits Illington; Thomas Edgar Watson, M B.; Charles George Webster.

BOMBAY ESTAB.—Alfred Hooton; Arthur Frederick William King; Robert Frazer Standage; Andrew Armstrong Gibbs; Henry Alfred Forbes Knapton.

The undermentioned have Retired from the Service:—

Brig.-Surgn.-Lieut.-Col. David Douglas Cuningham, C.I.E., Bengal Estab. 26th June 1898.

Surgn.-Lieut.-Col. Oswald Baker, Bengal Estab. 6th July, 1898.

Surgn.-Lieut.-Col. John Francis Fitzpatrick, M.D., Madras Estab. 9th July 1898.

Surgn.-Lieut.-Col. Joseph Backhouse, Madras Estab. 1st July 1898.

Surgn.-Major L. A. Waddell, M B, I M.S. (Bengal), Cheml. Exam. and Prof. of Chemistry, Med. Coll, Calcutta, special leave for six months, from 21st July 1898.

Mily. Asst. Surgn. J. J. A. Brachis having passed his dept., exam, is entitled to the enhanced rate of pay of his class, from 14th Dec. 1897.

The services of Mily. Asst. Surgn. E A. St. Romanine (Bengal), are placed at the disposal of the Agent to the Govt. Genl. in Rajputana.

The services of Mily. Asst. Surgn. P. McCarthy (Bengal), are placed at the disposal of the Govt. of Burma.

BENGAL GOVERNMENT.

Surgn.-Capt. R. Bird, Resident Med. Officer, Med Coll. Hosp, Calcutta, to act as Prof. of Physiology, Med. Coll. Hosp.

Surgn.-Capt F. C. Clarkson, to act as Civil Surgn. of Nadia until further orders.

Brig.-Surgn.-Col. W. H. Gregg reported his departure from India, 28th July 1898.

Asst Surgn. J. J. A. Brachio to act as Asst. Apothecary to the Med. Coll. Hosp., Calcutta.

Asst. Surgn. Surut Lal Basu, to do super. duty Med. Coll Hosp.

Asst. Surgn. Behari Lal Pal, Offg. House Surgn, Ezra Hosp. to do duty Presy. Genl. Hosp.

Asst. Surgn. Kali Mohun Sen, doing super. duty Med. College Hosp. to do duty, Presy Genl. Hosp

Asst. Surgn. Jogneswar Mukerjee, to do super. duty, Med. Coll. Hosp.

Asst. Surgn. Kasi Nath Ghosh to do super duty Med. Coll, Hosp.

Asst. Surgn. Satis Chandra De, Bhowanipur Hosp. to be Teacher of Medicine, Pathology and Hygiene, Orissa Med. School, Cuttack

Asst. Surgn. Nripendra Nath Basu, House Surgn., Eden Hosp., Calcutta, to the Med charge, Bhowanipur Hosp.

Asst. Surgn. Mobendra Nath Dass to do supy. duty, Med. College Hosp.

Asst. Surgn. I. Burnett, Mitford Hosp., Dacca, to be Insp. Med. Officer at Mairwa, Bengal and N.-W. Ry.. Saran Dist

Asst. Surgn. G. T. Milchem, Genl. Hosp. to act at the Mitford Hosp. Dacca,

Asst Surgn. W. Clarke, Offg. Asst. to the Surgn. Supy. Presidency Genl. Hosp., Calcutta, to act at the Howrah Genl., Hosp.

Asst. Surgn. W. Sherrington, Insp. Med. Officer, Plague Observation Camp, Mairwa, to act as Asst. to the Surgn. Supy. Presidency Genl. Hosp, Calcutta.

Asst. Surgn. H. G. C. Mills, acted as Asst. to the Surg. Supdt. of the Presy. Hosp. from 31st March to 4th April, 1898

Surgn.-Capt. J. G. Jordan reported his departure from India, on furlough, 2nd Aug. 1898.

Surgn.-Capt. W. J. Buchanan acted as Civil Surgn. of Midnapore from 23rd June to 16th July 1898.

The services of Asst. Surgn. Chander Kumar Dutt are placed temply. at the disposal of the Chief Commr. of Assam

Asst. Surgn. Chuni Lal Bose, Cheml. Exam. to Govt. and Asst. Prof. of Chemistry, Med. Coll. Calcutta to be in charge of the current duties of the office of Cheml. Examiner to Govt. and Prof. of Chemistry, Med College, Calcutta,

PUNJAB GOVERNMENT.

Brig. Surn.-Lt.-Col. W. A. C. Roe, I. M. S. (Bengal), Sany. Commer., Punjab, furlough out of India for one year, from the 13th Augt. 1898.

Surgn.-Major C. J. Bamber, I. M. S. (Bengal), Civil Surgn., Rawalpindi, to officiate as Sany. Commr., Punjab.

Surg.-Major T. R. Mulroney, Civil Surg. Amritsar, reported his departure from Bombay 16th June, 1898.

Surg.-Lieut.-Col. D. O' C, Raye, Inspr. Genl. of Civil Hospa. Punjab, made over charge to Brig. Surg. Col. W. A. C. Roe, Sany. Comer., Punjab 10th. Aug. 1898.

Surg. Lieut.-Col. A. W. Mackenzie, resumed charge Civil Med. duties of Abbottabad, 30th July, 1898.

CENTRAL PROVINCES GOVERNMENT.

Surgn.-Col. G. Hutcheson, M D., I. M. S. (Bengal), Admin. Med. Officer and Sany. Commr. C. P. is granted privilege leave for three months.

The services of Surgn.-Capt. A. G. Hendley, I. M. S. (Bengal), are replaced at the disposal of the Chief Commr., C. P.

Hosp. Asst. Imam Khan, Jail Hosp. Chanda, held charge Police Hosp. from 4th June to 31st July 1899.

Hosp. Asst. Surendranath Chakravarti, to do duty under Civil Surgn., Nimar.

Hosp. Asst. Surendranath Chakravarti, doing duty under Civil Surgn. Nimar, to do duty under Civil Surgn., Saugor.

Hosp. Asst. Vithal Raghoba Lande, doing duty under Civil Surgn. Jubbulpore, to Bijeragogarh Branch Dispy. Jubbulpore dist.

Hosp. Asst. Ashfak Husain, to do duty under Civil Surgn., Jubbulpore.

Hosp. Asst. Bapa Madho, doing duty under Civil Surgn. Raipur, to take charge of the Police Hosp., Sambalpur, from Hosp. Asst. Ganesh Parshad.

Hosp. Asst. Ahmadulla Khan was employed on Famine duty under the P. W. D, Saugor, from 1st April 1897 to 31st Augt., 1897. He did duty under Civil Surg., Saugor, from 1st to 20th Sept. 1897, and was again on Famine duty under P. W. D. at Saugor from 21st Sept. 1897 to 16th Nov. 1897.

Hosp. Asst Abdullah held charge, Pandaria Poor-house, Bilaspur dist, from 12th July to 6th Sept. 1897.

Hosp. Asst. Bhondu Lal, on plague duty at Saugor, is reduced to the grade of 3rd Class Civil Hosp. Asst. by order of the Chief Commr. from 31st May 1898, to do duty under the Civil Surgn. of Saugor.

Hosp. Asst. Mamtasullah Khan, doing duty under the Civil Surgn. of Jubbulpore, to the Jail and Police Hosp., Mandla.

Hosp. Asst. Amin-ud-din, to the Shahpura Dispy., Mandla Dist

Hosp. Asst. Chandra Bhan, to Saugor for plague insptn. duty.

N.-W. P. AND OUDH GOVERNMENT.

Asst. Surgn. Masha Allah Khan, Lecturer, Materia Medica and in charge of Thomason Hosp. Agra, privilege leave for one month from 3rd Aug. 1898.

Asst Surgn. E. H. Thomas, M.B., L.R C P. and S. (Edin'), L.F P, and S. (Glasgow), L.M., on being relieved of the acting duty as Lecturer on Materia, Medica and in charge of Thomason Hosp. Agra. is reappointed to same duty.

Asst. Surgn. Behari Lal Pande, from Sadar Dispy. at Khari to that at Basti.

Asst. Surgn. Hara Kanta Banerji, from Sadar Dispy. at Basti to that at Kheri.

Asst. Surgn. Tarak Nath Ghose; Sadar Dispy., Saharanpur, privilege leave for one month,

Asst. Surgn. Jogendra Prasad Sanyal, Travelling Med Inspr., Cawnpore Circle, to Khurja Dispy. Bulandshahr Dist'

Asst. Surgn. Dalip Singh Kotwal, on Plague duty, Hardwar, to Sadar Dispy. Etah.

Asst. Surgn. Gauri Lal, on Reserve duty at Lucknow, to Plague Inspn. duty, Jhansi.

Hosp. Asst. Lakshmi Narain, Jail Hosp Khesi, hold charge Sadar Disp. at that Stn. from 24th to 31st July 1898.

Asst. Surgn. Shashi Bhusan Banerji, Travelling Med. Inspr. Ghaziabad Circle, to Platform Inspn. duty, Ghaziabad.

Asst. Surgn. Chanan Singh, from Plague duty, Ghaziabad, to Reserve duty, Agra.

Asst. Surgn. Gauri Lal, Travelling Medr. Insp. Allahabad Circle, to Reserve duty at Lucknow.

Asst. Surgn. Gobind Chandra Banerji, from Plague duty, Muttra, to that at Hardwar, Saharanpur Dist.

BURMA GOVERNMENT.

Surgn.-Capt, Kanta Prasad, M.B., assumed charge duties of Civil Surgn Sagaing, 14th July 1898.

Surgn.-Capt. C. E. Williams, M.B., assumed charge duties of Resident Med. Officer, Genl. Hosp. Rangoon, 22nd July 1898.

Asst. Surgn. Maung Chit Tun, assumed charge Genl. Hosp. Moulmein, 15th July 1898.

Hosp. Asst. Nasaral Huq, on transfer from the Genl. Hosp. Mandalay, assumed charge, Town Dispy. Mandalay, 25th July 1898,

Hosp. Asst. Rajchunder, Kur, assumed charge Genl. Hosp. Mandalay, 25th July 1898.

Hosp. Asst. Maula Buksh, assumed charge Outpost Hosp. N'Krang, Myitkyina dist. 9th July 1898.

Hosp Asst. Chowdri Mahla Buksh, assumed charge Civil Hosp Mergui, 19th July 1898.

Hosp. Asst. Radhanath Singh, assumed charge, Mily. Police Hosp, Mogaung, 21st July 1898

Hosp. Asst. B. B. Chukerbutty, three months' privilege leave from 21st July 1898.

Hosp Asst. Makhan Lal Warma, assumed charge Outpost Hosp. Kyunhla, Shwebo dist. 24th July 1898.

ASSAM GOVERNMENT.

Asst. Surgn. C. R. W. Bancroft, whose services have been placed at the disposal of the Chief Commr. is posted to Tura to be Civil Med. Officer, Garo Hills.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTHS.

BORAH.—On the 8th of Augt., at Silchar, the wife of Surgn.-Lieut.-Col. S. Borah, I. M. S. of a daughter.

WOOLBERT.—On the 9th Augt., 1898, at Fair View, Landour, the wife of Surgn.-Major H. R Woolbert, I. M. S., of a daughter.

MARRIAGES.

BOWIE—CHICHELE-PLOWDEN.—On the 20th July at Christ Church, Lancaster Gate, Alex Bowie, M.D, C.M, L.R.C.P.E, etc., of 40, Hertford-street, Mayfair, eldest son of John Bowie, M.D., L.R.C.P.E., to Henrietta A. Chichele Plowden, only daughter of the late Captain H. Chichele Plowden, Bengal Staff Corps.

BROWNE—BRADSHAW.—On the 21st July, at St. Giles's Church, Camberwell, S.E., Depy. Surgn.-Genl. James Browne, M.D., Bengal Army (Retired), to Charlotte (Lottie), daughter of the late Christopher Bradshaw, of Grove Park, Denmark Hill, S. E.

DEATHS.

JOHNSTON.—On the 24th July, at his residence, Edendariff, Cheltenham, Surgeon-General William Johnston, M.D., late Madras Army, aged 81 years.

MURRAY.—On the 27th July, at Claughbane, Sheringham, John Murray, M.D., Surgn.-Genl., aged 88.

BEATSON.—On the 29th July, at Cromwell-road, Earl's-court, Surgn.-Genl. John Fullarton Beatson, M.D., C.I.E, aged 81 years.

CARDEW.—On the 17th Augt., at Murree, of meningitis George Schuyler Cardew, Major. R. A. M. C. son of the late George Schuyler Cardew, Insptr. General of Hosps., Bengal Army.

JELOVITZ.—On the 25th August, at 8-30 P.M., at 66, Dhurrumtollah Street, Sophia, the dearly beloved wife of Dr. M. L. Jelovitz,—aged 63 years. Bombay and American papers please copy.

WALSH.—On the 13th of August, at Berhampur, Bengal, Mary, the wife of Surgeon-Major J. H. Tull Walsh, of typhoid fever.

NOTICES TO CORRESPONDENTS.

P. C. (Yeotmal).—We shall always look upon you as a most valued helper and associate.

W. M. O. Provident Fund.—Surgeon-Captain Wade has not yet submitted a statement of account of the Fund, nor has he handed over the monies to its credit to the Treasurer of the Indian Medical Association as he is in duty bound to do. Surgeon-Major Hodgkins, the Treasurer, is at present away on leave, on his return, it is hoped that Surgeon Captain Wade will immediately make the necessary transfer of documents and funds.

A. F. F. (Daman)—Thanks for your article and note which will receive attention in our next issue.

D. F. (Nagpur).—Kindly send in an appeal to the President of the Indian Medical Association, backed by a printed and attested copy of your testimonials. Give a detailed statement of your services as an Assistant Surgeon; and if possible, obtain letters from a few Medical Officers who know you, recommending your appeal. The Council under such circumstances will be pleased to support your case.

B. S. R. (Duggavati)—The title Doctor as a prefix, can only legitimately be used by medical men and women possessed of the degree of M.D., or M.B. It is however a title that is courteously allowed to all medical men and women who hold diplomas, other than university degrees.

J. H. M.—Your paper meets with attention in this number.

W. W. B. (Landour)—Your query is already answered in this issue.

B. P. (Dehree on Sone).—For the treatment of maculæ, try arsenic internally and inunctions of zinc ointment.

R. S (Goona).—We have received no intimation concerning medical subordinates recommended for promotion and other honors for the Tirah campaign.

D. D. (Jhansi).—Arm yourself with written testimony concerning your abilities and character, and the Council of the Indian Medical Association will be pleased to assist you in any way in its power.

Eden Hospital.—The note made on the slip given to the out-door patients you refer to, is absolutely incorrect, the patient was subsequently, within twenty-four hours, carefully examined by two practising physicians, who totally disagree with the opinion expressed in the note.

Deo Lall—A further reference has been made to the Indian Medical Association by the C. P. Government on your case. Will you kindly forward at once to the Secretary, Indian Medical Association, a printed copy of the whole of the papers, which were submitted to Government regarding your appeal.

G. E C. Civil Assistant Surgeons do not belong to the Apothecary class and they have never been so designated. There still exists a class of Civil Apothecaries in Madras, but this appellation will soon be abolished.

A. M. (Kashmir).—Many thanks for your valuable paper. It will appear in our next number.

Hospital Assistant Ram Dhari Sinha, Medical Officer, Civil Hospital, Abu Road, Rajputana, wishes it publicly known that he is not L.M.S., but L.T.M.S., (Patna).

ORIGINAL ARTICLES.

NOTES FROM CLINICAL RECORDS OF THE KASHMIR STATE HOSPITAL.

By Dr. A. Mitra, Rai Bahadur, L.R.C.P., L.R.C.S., F.C.S.
Chief Medical Officer, Kashmir.
Reported by Pandit Anand Koul,
Personal Assistant.

(1895-96).

I. Medical and Gynæcological.

In Kashmir the medical cases are now varied. Fevers and pneumonia take the lead. Of acute specific fevers, remittent fever is the most common. Three cases of typical typhoid were treated, one being a hospital assistant in Gilgit Transport Service. Four cases of small-pox were treated in the isolation ward of the Srinagar Hospital. Three children suffering from diphtheria were treated and all three died. Whooping cough often occurs in epidemic form; two such epidemics were observed during the year. Malarial fevers are by no means uncommon in July and August. Of constitutional diseases, rheumatism, acute and chronic, takes the lead. Purpura is a very common disease in Kashmir. It often occurs in epidemic form, and village after village is attacked with it. Many die from it. Diabetes is not common though I have met with many serious cases. With the generally used carbohydrate food one would perhaps expect greater prevalence of this disease but it is by no means so. Diseases of the throat are very prevalent, specially in Srinagar Of respiratory diseases, acute croupous pneumonia is very common in winter. It is very fatal in Punjabis. Pleurisy is also common. Phthisis is the one disease which is by no means common in Kashmir. Though a cold country, dwelling houses in Kashmir are generally very well ventilated, having several windows and openings. A large portion of the population live in boats. People generally lead an active outdoor life. The high altitude of the valley and its bracing mountain air are also factors which combine to make the Kashmiris comparatively free from tubercular lung diseases. Most of the cases, however, that I have seen, were among Zenana women who are shut in closed houses and take no physical exercise of any kind. The disease, however, is not uncommon among the Dogra sepoys, who coming from a hot country prefer to shut themselves up in barracks which are low and not well ventilated. Cardiac diseases are often met with. Digitalis and stropanthus yield the best results. Both mitral and aortic diseases were found yielding to digitalis. Dropsical cases in very advanced stages are received in Srinagar from the districts. The result of treatment is often satisfactory but more often not so. Endocarditis from gonorhœa and pericarditis from rheumatism are often met with. Asthma is a common complaint in Kashmir. One typical case of thoracic aneurism was met with during the year. Acute gastritis and enteritis are often met with. Dysentery is very common. Results with ipecacuanha *sine emetine* were not encouraging. Diarrhœa is very common in summer, specially during the fruit season. Enlargement of the spleen among Kashmiris is not often found, while with the Punjabis and hillmen coming to Kashmir it is a common complaint. Renal diseases are common. Organic diseases, diseases of the spinal cord, general paralysis of the insane and other nervous diseases are frequently seen in Kashmir. Such diseases are mostly of syphilitic origin. I believe myxœdema is by no means rare in Kashmir. Skin diseases of all kinds are frequently met with. During the year the proportion, of nervous, urinary and gynæcological cases treated, to the total has remained identically the same as that of last year, the proportion of admissions of patients suffering from general diseases and diseases of the alimentary system has risen, that of the respiratory diseases fallen, the last is no doubt due to the mild winter of 1895-96. Pneumonia did not appear with anything approaching the severity reached last year. In one gastric case autopsy was held. The seats of the perforating ulcers were, one in the middle of the anterior surface of the stomach the size of a 4 anna piece, and another of the same size in the posterior wall about the middle of the lesser curvature. In one case the ovary was removed for cystic growth with success. Exploratory incision was made in one case of salpingo-ovaritis in which the patient died. Minor gynæcological operations of various kinds were performed. Pessaries were used in a large number of cases of displacement. A pessary was so favourite a mode of treatment that it was always paid for by the patient.

II. Surgical.

Chloroform was administered 564 times with no untoward results. For this great credit is due to House Surgeon, Amirbakhsh. Strictly aseptic methods are adopted in the Srinagar Hospital, and to this is due the satisfactory result in the treatment of surgical cases. I now use nothing but carbolic and for dressings zinco-cyanide of mercury. Bone diseases afford a large number of cases for resection and gouging. Tumours of various kinds were removed. Several amputations were done. Piles were very successfully treated. One case of strangulated hernia was operated on successfully. In a case of traumatic paraplegia I ventured to perform laminectomy, but the result was not satisfactory, though the life of the patient has been saved. In ophthalmic surgery, cataract and minor operations for pterygium trichiasis were done. For cataract iridictomy is done as a rule, though in some cases of soft cataract that procedure was dispensed with. I do not believe in Spanton's method for the radical cure of hernia. This operation was formerly done in Kashmir in large numbers. Many of these cases now come back as bad as before. In one such case I have recently done Mitchell Bank's operation. The sac was exposed and separated from the surrounding part, a ligature was applied round its neck high up. The sac below the ligature was removed. The inguinal ring was closed by silver sutures and left in position Lateral lithotomy was performed in one case of stone. Several cases of severe head injury were received. In one, trephining was done for compression. Another case in which the brain protruded through a fractured skull, recovered.

(1896-97)

Medical & Surgical.

1. During the year under report, 15,002 cases of venereal diseases were treated. I observe that venereal diseases are increasing in Kashmir, but a large number of cases now came under treatment in the earlier stages.

2. Rheumatic and skin affections mentioned in the report probably also include cases of venereal disease, though both these classes of diseases are very common in Kashmir.

3. As usual a large number of chest diseases were treated in Kashmir during the year. I am glad to record that with one exception all cases of acute lobar pneumonia recovered. Quinine in frequently repeated doses answered best. External application of creosote was tried in several cases for the reduction of temperature. The result was varying in some cases, among others in the case of one of our hospital assistants it proved very efficacious. Terebene was found to be a useful antiseptic expectorant. Guaiacol was largely tried.

4. I had to treat a large number of cases of heart disease, mostly cases with failing compensatory symptoms with dropsy. Digitalis proved most useful, and with but one or two exceptions relieved them wonderfully. Diuretin was tried and proved efficacious in two cases, also caffein, but the cases were few indeed that did not respond to digitalis.

5. I had a case of angina pectoris of pronounced type in a Bengalee compositor belonging to the Jail Press. He took ill on the road, and was so bad that he had to be carried to the hospital. Nitrite of amyl relieved the pain and a subsequent course of iodide was prescribed. The pain has not recurred.

6. Facial paralysis is very common in our out-door dispensaries. I noticed a case of facial paralysis with acute poliomyelitis. The lesion appeared to be nervous rather than myopathic. It bore some resemblance in distribution to the facso-scapulo-humeral form of muscular atrophy in infancy first described by DUCHENNE. The facial paralysis was complete. Febrillary twitchings were present. I find facial palsy often connected with rheumatic causes and in such cases salicylate of soda acts like a charm.

7. I tried thyroid gland in some cases of goitre, which is a common disease in the Tral Tehsil in Kashmir, with no result whatsoever.

8. The months of June, July and August were marked by a great number of admissions into the medical ward of cases of fever, diarrhœa and dysentery. In March, April, November and December, pneumonia cases predominated, while in the winter months rheumatic cases, sore throat, bronchitis and pleurisy flourished. During the year affections of the respiratory organs have been rather over the average. The number of cases of acute and sub-acute rheumatism was nearly the same as that recorded last year.

9. A larger number of cases of *phthisis pulmonum* was treated during the year under report than before. The cases were all Punjabis and Gurkhas, sepoys and others. Tubercular disease of the larynx was present in two cases. In six cases out of 9, the disease was incipient and seemed to be arrested by treatment.

10. I do not think I had any case of typhoid, but I had several cases of remittent fever with diarrhœa.

11. There were 2 cases of appendicitis treated in the medical wards. They were cured without being transferred to the surgical ward.

12. In two cases the skull was trephined for depressed fracture with very good results, and in another the mastoid was drilled for chronic suppurative discharge.

13. Chloroform was administered in 395 cases with no untoward results. One case took as much as 2 ounces and yet surgical anæsthesia was not produced. More chloroform was not given and the contemplated operation for hæmorrhoids had to be abandoned. Strict antisepsis is observed in the treatment of surgical cases.

14. In some cases of wounds, sulphur was tried as a surgical dressing, but the result was not found satisfactory.

15 There was an epidemic of whooping cough in Srinagar during the year. Besides the usual remedies the following were used:—

(*a*) Bromoform.

(*b*) Ext. Castinæ Liq.

16. Three cases of diphtheria occured in my out-practice. Two were treated with antitoxin received from Burroughs Welcome and Co. All ended fatally. In two, pure sulphite of magnesia was insufflated.

17. Three scirrhus of the mammæ were removed. One case we have lost sight of, but in two others recurrence has taken placed. In one case I tried to follow the technique recommended by HALSTED.

18. It will be seen that only eleven cases of poisoning were treated during the year—only half the number recorded last year. There was no death from snake-bite.

19. The fatal cases in the surgical ward are thus accounted for—

(*a*) One case in which trephining was done for depressed fracture. The patient was admitted late, the pressure symptoms were pronounced and signs of meningites supervened. The patient died from meningites.

(*b*) Tracheotomy was performed in a child aged 5, in a late stage of malignant or diphtheritic tonsillitis. Patient was much cyanosed before operation.

(*c*) A case of chronic pleurisy with empyema in which incision was made. Patient was in a very low state and died of exhaustion, quite independent of the operation.

(*d*) A case of strangulated hernia died two hours after the operation. The case when admitted was moribund.

(*e*) Amputation above the knee was performed for a chronic suppurative disease of the knee-joint involving the whole of the tibia and extending down to the ankle. Before the operation the patient was in a very bad state with fever and abundant putrid discharges from the knee. In operation lay the last hope of life, but the patient died of exhaustion after eleven days.

(1897-98.)

I. SURGICAL.

1. The following interesting cases of injury of the skull were treated during the year :—

(*a*) A man was wounded on his head by a sword cut. The scene of attack was within a few hundred yards from the hospital. He, together with another man who was wounded in the lower jaw, and a woman, whose neck was totally severed, was brought into the hospital immediately after the injury. The patient was not fully conscious when he was brought into

the hospital, and was bleeding freely. On examination there was found a curved C shaped cut over the right parietal bone, 4½ inches long. The bone was cut and the edges overlapped, the membrane was severed and the brain was found slightly protruding. The bleeding was first attended to. The depressed portion of the bone was removed by a chisel and strict aseptic treatment was observed. The result was, the patient left the hospital 27 days after, with a perfectly healed wound, and resumed his usual work.

(*b*) A mason fell from the roof of the Palace where he was working and sustained a fracture of the skull. It was a depressed fracture of the occiput with a central point of maximum depression and might have been termed a star-shaped depression. Symptoms of compression were pronounced and trephining was therefore performed. The patient was 40 days in the hospital and left it perfectly cured.

(*c*) Two cases of fracture of the base of the skull one following a blow on the head and another caused, by a fall, were treated. In one case, portion of the brain matter was found in the nose, and in another there was hæmorrhage from the extended auditory meatus. Both cases proved fatal.

(d) A Punjabi ekka driver was admitted into the hospital in an unconscious state, having been thrown from his ekka near Pattan. Over the right parietal eminence was a jagged lacerated wound, beneath which was a depressed portion of bone. Trephining was performed, but the patient died 3 days after with symptoms of meningitis. In the necropsy the brain was found severely lacerated. There was a large quantity of extravasated blood over the right hemisphere.

2. A case of complete division of the lower jaw by a sword cut at the right-angle of the mouth running down obliquely to the ramus, was treated by wiring of the fragments by copper wire. The wound healed without any difficulty and the patient can now use his jaws freely.

3. Four cases of fracture of lower jaw, one of them caused by a native barber during the process of tooth extraction, were treated by splints and were cured. In these cases gutta-percha splints were used. I tried to use an interdental wire splint in one case but it did not prove satisfactory.

4. Seven cases of spine injury were treated, 2 contusions, 2 incomplete fractures, 2 fracture-dislocations, 1 undefined injury of the spine. Of these, 2 cases of fracture died in the hospital. The cases of contusion were cured: the other cases were removed by the friends of the patients, who at the time of leaving the hospital had all the spinal injury symptoms. The great difficulty in these cases was to keep the beds clean. They could not be kept in the general ward owing to the foul smell of urine.

5. One case of strangulated hernia in a sepoy was operated upon, but proved fatal. Twelve cases of hernia were reduced by taxis. Several cases of infantile hernia were seen.

6. A large number of internal piles were treated principally by incision by WHITEHEAD'S method.

7. There were three operations for cancer of the breast, in one the axillary glands were removed. I have 2 cases under observation, and in both there are signs of recurrence. An unusual case of scirrhus was seen involving both mammæ, the whole of chest extending as far up as the neck, and as far down as the umbilicus.

8. In one case of congenital absence of the rectum, laparo-colotomy was performed. The pelvis was depressed and the proctodæum absent.

9. Castration was performed in a case of diseased testicles through syphilis. The testicle on removal was found to be a disorganized mass, infiltrated with pus.

10. Syphilis is responsible for fully 30 per cent. of our cases in the surgical ward. There are to be seen the primary lesion and its various manifestations, the secondary stage and its effects on the skin, the glands, the mouth, the throat and the eye. Then all the serious phenomena of the tertiary stage are seen in the bones, sclerosing ostitis, gummatous affection of the periosteum and medulla and necrosis. The infantile population suffer largely from protean lesions of inherited syphilis.

11. Carcinomatous growths over the abdomen and thighs were treated in large numbers. These are caused no doubt by the constant irritation of the live charcoal, used by the Kashmiris in an open wicker-cased pot called Kangri.

12. Nerve stretching has proved efficacious in severe and obstinate sciatica.

13. Disinfectants and Dressings.

(*a*) Iodoform is the most reliable agent in the treatment of wounds.

(*b*) In major operations, zinco-cyanide gauze and wool are the best.

(*c*) Irrigation is still practised and is found very useful during operation in keeping up a general asepsis.

(*d*) Glutol is a very useful healer of recent cuts.

(*e*) Chrystia is a very good substitute for gutta percha.

(*f*) There were no fatalities from chloroform. In two cases death was imminent, but inversion, injection of ether, together with artificial respiration saved life. Inversion, if early practised, is more useful than any procedure.

14. A larger number of cases of the diseases of the eye were treated during the year than the previous year, as being 11,381 against 8,227. It is satisfactory to note that with only one exception all my cataract cases yielded very good results. In eye operations strict antiseptic precautions are taken. Instruments are sterilized and antiseptic solutions freely used. Several cases of glaucoma were treated with myotics and iridictomy (done peripherally) and the result was fairly satisfactory. The disease was in many cases checked by the early use of a half per cent. solution of eserine.

II. MEDICAL.

1. The principal diseases treated in the medical ward were fevers, chest complaints, rheumatic and nerve diseases. Heart diseases, and cirrhosis of liver are also very common. Most of the heart cases seek treatment when compensation begins to fail, and treatment then generally fails to give satisfactory results. Tuberculosis in the lungs is not common among the Kashmiris most of

the cases treated being sepoys. Diabetes and kidney diseases are common, but locomotor ataxy, progressive paralysis of the insane and various neurotic disturbances, due to syphilis, are commonly seen.

2. The number of cases of acute lobar pneumonia admitted during the year, was much lower than during the previous year, and was in fact the smallest number recorded since 1948.

3. There was an epidemic of influenza during the months of February, March and April. Forty-three cases were admitted suffering from the disease or from its sequalæ, and 143 cases were treated for it in the outpatient department. In the indoor ward, only one patient died with pneumonia. Severe headaches, bronchitis, rheumatism and pneumonia were the principal complications. I found antikamnia very useful in the neuralgia of influenza.

4. One case in the medical ward was transferred to the surgical side, for resection of the rib for empyema.

5. One case of appendicitis proved fatal.

III. MEDICO-LEGAL.

Several cases of medico-legal interest were received during the year, among them the following are noteworthy :—

1. A case of death from gun-shot injury The whole of the left parietal was fractured to pieces.

2. Complete section of the neck in a woman caused by a sword-act.

3. Death from fracture of skull in two cases by blows from thick sticks.

4. Death from fracture of skull in a child, alleged to have been caused by the child being thrown forcibly on the floor.

5. Severe injuries by hot iron in a girl aged 12 with forcible coitus resulting in peritonitis and subsequent death.

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THE URINE : CLINICAL TESTS ; METHODS, AND SIGNS. *

BY A LOCKHART GILLESPIE, M.D, F.R.C.P ED.,
Medical Registrar, Edinburgh Royal Infirmary.

1. CASTS.

THE significance applicable to the presence of albumin and casts in the urine is regarded by PORTER (*Phila. Med. Jour.*, April 2, 1898, p. 587) as represented by the following :—

1. "Serum albumin." can no longer be regarded as a single proteid occurring in the urine.

2. The epithelium of the renal tubules excretes the various proteids passed in the urine.

3. That from these proteids the casts are formed.

4. That there are two classes of casts, one signifying structural alteration in the renal excretory mechanism, the other not doing so.

5. That casts without albumin are not so frequently found as albumin without casts.

6. That casts (not essentially co-existent with organic diseases) may be detected in almost every sample of urine centrifuged.

7. That a study of the kind of proteid and the size and forms of cast excreted in the urine, enables a diagnosis to be made with exactness as to the condition of the renal glands.

Further details of the correlation between the different forms of proteid and casts must be obtained from the original paper, as the subject is too widely treated to yield itself to brief abstraction.

(Barrie in the *Med. Rec.* N. Y., for January last year, called attention to the great frequency with which renal casts can be discovered in the urine, should the centrifuge be regularly employed. In fifty apparently healthy prisoners he detected casts in thirteen, albumin in twenty. He quotes SHATTNELL's 297 cases, arranged by decades from 20 years old to 90, and yielding from 23 to 100 per cent. of the urines with either albumin or casts, although apparently free from kidney disease.)

Litten (*Wein. klin. Wchnschr.*, 1891), as far back as 1891, pointed out that centrifugalisation of the urine demonstrated the presence of casts in cases believed, after application of the ordinary tests, to be absolutely free from any such bodies.

BARD (quoted in the *Centralbl. f. innere Med.*, Leipzig, 14th May, 1898) considers that granular casts vary with the intensity of the parenchmatous renal inflammation ; if this is acute, the casts are consistant and opaque ; with lessening acuteness the granular casts are fewer and more transparent. The diameter of the casts increase *pari passu* with the severity of the disease. After subsidence of the inflammation the casts become hyaline. Amorphous, colloid-looking casts denote the presence of sclerosis, and secondary atrophy following upon acute conditions.

Casts of a purely epithelial substructure seldom occur in parenchymatous nephritis, but betoken far more strongly some toxic irritation, leading to simple desquamation or inflammatory change of the epithelial cells. If, in assured cases of parenchymatous nephritis, no granular or colloid casts can be detected, although albuminuria still persists, it must be taken that the original inflammatory process has subsided, and that the proteid leakage is rendered possible by solutions of continuity between the epithelial cells.

HAINES and SKINNER (*Journ. Am. Med. Assoc.*, N. Y. 29th Jan. 1898) describe a new method of detecting the presence of casts in the urine. The older method of subsidence, and the later method by the use of the centrifuge, have each their advantages and disadvantages. Subsidence alone allows of the use of large amounts of urine, the centrifuge only of small quantities; subsidence often fails to give, the centrifuge always gives a compact precipitate. Combination of the two methods, as devised by the authors, leaves little or nothing to be desired in the detection of casts. They pour 250 c.c. or more of the urine into a sterilised glass percolater, add a gramme or two of chloral hydrate dissolved in a few c.c. of distilled water to retard decomposition (? fermentation), cover with a glass plate, and set aside for eighteen or thirty-four hours. Then the lower portion, containing any sediment, is drawn off through the ordinary tube, which opens into the bottom of the percolator, and is centrifugalised. (The combined use of subsidence and centrifugalisation is by no means original, and has been practised

* Reproduced from the *Edinburgh Medical Journal* by request.

as of self-evident value for some time in this country; sedimentation being allowed to occur in tall vessels, and the precipitate pipetted off into the centrifugaliser tubes. —A. L. G).

2. TO OBTAIN THE URINE SEPARATELY FROM BOTH KIDNEYS.

In the same number of the journal last referred to, HARRIS describes and figures an instrument by which the excretion of the individual kidney can be separately obtained from persons of either sex. It can, in truth, seldom prove of value in medicine, but reveals important facts as to the *status præsens* of the kidney on whose neighbour it is proposed to operate. The instrument is in the form of a double catheter in a common sheath, each catheter separately moveable longitudinally. The proximal end is curved in a similar way to a male sound, while the distal end is curved in the same way and in the same plane, indicating the exact position and direction of its prototype. Where the distal curve meets the straight portion, the two catheters pass through the tube wall, and are connected with separate bottles, both of which can be exhausted by one rubber-air-pump. Apart from this apparatus is a metal lever, 24 cms. long, with a laterally flattened, curved end. After passage of the compound tube in the ordinary way, each catheter is rotated longitudinally, the proximal end of the covering tube pointing outward and backward, as revealed by the distal extremity; the angle subtended posteriorly by the catheters becoming equal to about 120° to 140.° Pressure now exerted by the lever *per vaginam aut rectum* raises the floor of the bladder in the middle line, and produces two miniature drainage areas, with a watershed between, so that the water supply from the ureter of the one side forms a rivulet quite apart from that of the other.

The descent of the water is facilitated by gentle aspiration. Each exhaust bottle now receives the unmixed excretion of the corresponding kidney, and the condition of these organs can be diagnosed with confidence.

3. PEPTONES AND ALBUMOSES IN THE URINE.

BANG (*Deutsche med. Wchnschr.*, Leipzig, 1898, No. 2) points out that the method of HOFMEISTER and SALKOWSKI for detection of the presence of albumoses in the urine is open to fallacy from the very similar reaction given by urobilin, and proposes the following clinical method, which has the merit of considerable simplicity. To 10 c.c. urine 8 grms. ammonium sulphate are added, dissolved with heat if necessary, and the mixture briefly brought to the boil. It is then centrifugalised for a half to one minute, the precipitate separated from the supernatant liquid, and rubbed up with 97 per cent. alcohol. The alcohol removes any urobilin, while, should the remainder, dissolved in water, boiled, and filtered, answer to the biuret test, albumoses or peptones are present. A remote cause for further fallacy is given by hæmatoporphyrin, but the pigment may be removed by the addition of chloride of barium and filtering. SALKOWSKI (*Berl. klin. Wchnschr.*, 1897, No. 17) and HARTOGH (quoted *Centralbl. f. innere Med.* Leipzig, 14th May 1898, from an Inaug. Diss., Freiburg, 1897), after extensive investigations, show that urobilin is frequently mistaken for peptone and albumoses in the urine because of its reaction to the biuret test.

LENOBEL (*Wien. klin. Rundschau*, 1897, No. 27, quoted *loc. cit.*) points out an important point with regard to albuminous urines, which also contain proto-albumose. Proto-albumose isolated from the urine, has a very strong action in preventing the coagulation of albumins in the ordinary methods used in practice.

HAACK (quoted *Schmidt's Jahrb.*, Leipzig, 1898, Bd. iii.) employs the addition of an amount of absolute alcohol five to ten times the volume of the urine, and extraction of the precipitate, formed after twenty-four hours, with boiling water.

HOSIN (quoted *Centralbl. f. d. Grenzgebiete d. Med u. Chir.*, May 1898) records the case of a woman of 36, with head and back ache, or debility. The urine gave a large deposit with HELLER'S test, and contained casts and thickened epithelium. In spite of the absence of all the general signs of acute, chronic, interstitial, or parenchymatous nephritis, the case apparently was one of Bright's disease; after three weeks, when the patient had not been relieved from her symptoms by iodide of potassium and milk diet, it was found that the urine contained no albumin, Heller's test gave a dense, opaque, white ring, but this cleared up on heating, and reappeared on cooling, beginning first at 58° C. to precipitate, at 72°C. to disappear again. The patient died, and was found to have been suffering from sarcomatous growths in many of the ribs.

4. DIABETES.

STERN (*Med. Rec.*, N. Y., 21st May 1898) has devised a small, neat, and, from the description, a sufficiently accurate apparatus for clinical work, to facilitate Robert's fermentative estimation of dextrose in urine. Its essential feature consists of two glass tubes, one wide to contain 100 c.c., the other narrow for 50 c.c. of urine. The tubes are united together by a solid glass curved tube, and stand upright on a wooden pedestal. In the narrow tube 50 c.c. of urine are placed, and a urinometer is put in, the whole being covered with a cap. Into the broad tube 3 or 4 grs. of yeast and 100 c.c. of urine are introduced, and another urinometer employed, the stem passing through a metal adjustable cap. After twelve to fifteen hours the difference in the readings will indicate the loss of sugar, 1 equalling 0·2196 grm. dextrose per cent., or 1 gr. in a fluid ounce.

Several papers have been published in connection with the diagnosis of diabetes, by means of the appearance presented by the red blood corpuscles, after staining with various aniline dyes, such as methylene blue 1 per cent. for one or two minutes, congo red, and Ehrlich-Biondi's fluid. Each of these differentiates between healthy and diabetic blood, by the colour or absence of colour produced (Bremer, *Centralbl. f. innere Med.*, Leipzig, 7th June 1897, and 2nd April 1898; Loewy, *Med. Week.* Paris, 1897, p. 539; Marie and Goff, *Semaine med.*, Paris, 5th May 1897; Baduel and Castellani, *Settimana med. d. Sperimentale*, Firenze, 1898, No. 10).

5. ALBUMEN.

HUSCHE (*Wien. med. Wchnschr.*, 1897, No. 34) points out the possibility of there being a frequent fallacy attendant on HELLER'S test. In concentrated urines, when the acid has been so added as to form a distinct line of conjunction with the urine, a cloud is formed from the urates present, which vanishes on heating, and which can be

hindered by previous dilution. The author found, in most urines that he tested, a similar cloud entirely independent of the concentration of the urine or the quantity of urates. Unlike the first (and unlike proto or hetero-albumose, it may be added—A.L.G.), this cloud does not completely disappear on heating, while dilution of the urine increases rather than diminishes it. This he considers to be due to nucleo-albumins. Should a urine contain the ordinary coagulable proteids, excess of urates, and these nucleo-albumins, the coagulated and precipitated substances may be perceived to form three rings in place of the two hitherto accepted. The albuminous ring or cloud, forms the lowest of three in the test tube; over it comes a clear zone; then the opaque ring of urates, in which the author's power of vision enable him to detect a denser portion, also ring-like in form, which consists of a layer of coagulated nucleo-albumins.

Further, JOLLES (*Wien. med. Wchnschr.*, 1897, Bd. xlvii. S. 22) shows that in cases of pseudo-leukaemia, a milky precipitate falls on addition of acetic acid, which, after solution in carbonate of sodium, is not brought down by saturation with magnesium sulphate. This body he recognises as nucleo-histon.

7. URIC ACID.

RIEGLER (*Wien. med. Bl.*, 1897, No. 21) describes a method of estimating uric acid by volumetric measuring of the gas evolved by the addition of dilute but still strong nitric acid to the urine. It would be superfluous to mention here the details of the separate factors necessary for calculating the proportion of uric acid; not only the pressure of the atmosphere and the temperature of the air have to be reckoned with, but the tension of the steam, given off by the urine when boiling, accounted for. A very simple method, as the author remarks, but bristling with rather too many sums for the practitioner unacquainted with anything beyond the rule of three.

TUNNICLIFFE and ROSENHEIM, in the *Brit. Med. Journ.*, London, for 4th February of this year, advise the use of piperidine as a reagent for the estimation of uric acid. This body forms soluble salts with the acid. To estimate the actual amount present, the uric acid in 100 c. c. is precipitated with ammonium chloride, the ammonium salt split up by hydrochloric acid; the uric acid thus obtained washed free from hydrochloric acid and tested with a solution of piperidine added from a burette; 0·425 grm. piperidine equals 0·84 uric acid.

7. RENAL PERMEABILITY

ACHARD and CASTAIGNI, (*Gaz. hebd. de med.* Paris, 1897, tome xliv. p. 37) inject hypodermically 0 05 grm. of 5 per cent. solution of methylene blue, after the bladder has been emptied, and get the patient to pass urine a half, one, two, three hours and so on. The first appearance of a green tinge, or abstraction of the blue after shaking with chloroform, normally begins in half-an-hour, the amount in the urine increases for three or four hours, and does not entirely disappear until from thirty-five to fifty hours have elapsed. In disease of the kidneys, the reaction appears much earlier. The conditions leading more especially to this earlier elimination are found in functional kidney diseases, and in diffuse, acute, or chronic affections of the renal interstitial tissue. The authors regard the method as one capable of affording much information in cases where there is albumin in the urine but no casts, or *vice versa*. BARD (*ibid.*, 1897, tome xliv, p. 42) fully corroborates the conclusions of these authors, who again return to the question, as especially concerned with cases of congestion brought on by nephritis (*ibid.*, 1898, No. 16). The test here again fulfilled anticipations, and, moreover, was found to contitute a valuable clinical method of testing the condition of the renal tubules, quite independently of changes in the diet or in the environment.

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THE BEST METHODS OF SURGICAL STERILIZATON.*

BY EDWARD BOECKMANN, M.D.
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WHILE surgical sterilization is open to improvement and does steadily improve, it is to be regretted that the best methods of attaining this desirable end are matters of dispute among the three principal schools. Thus while (1) the English school teaches chemical sterilization which means the destruction of non-spore bearing pyogenic bacteria only, the (2) German school advocates the extermination of all surgical bacteria, spore-bearing or not, pyogenic or not, by the aid of heat, and (3) the French school aims at both surgical and bacteriological sterility.

If the Englishman is right, his method is certainly the quickest and the simplest, as all that he requires is a cold solution of carbolic acid; but the German, if he is right, has the sympathy of the majority of Surgeons and needs sterilizers for boiling water or for ordinary steam which the Englishman has no use for. If, however, the Frenchman, with his expensive and cumbersome high-pressure sterilizers be the only one who is really right, surgical sterilization will never become popular outside of hospitals.

In surgical work we aim not only at sterility but also at atoxicity or cleanliness, and while it is of some importance to remove chemic impurities of all kinds by washing, scrubbing, scraping and shaving and to secure at least three-fourths sterility by mechanical sterilization, we must also insist upon complete destruction of our real enemies; as the surgical failures through imperfect sterilization are invariably due to sepsis *i.e.* to the action of pyogenic, not spore-bearing bacteria. And though we have once or twice heard of a patient dying from anthrax or tetanus, where do we ever hear that a patient succumbed to tubercular infection or vibrion septique through faulty sterilization?

The real question is:—Will killing the less resistant pyogenic bacteria suffice (English) or is it necessary to destroy and remove all known surgical bacteria and their spores (German) or must bacteriologic sterility (French) be obtained?

CHEMIC STERILIZATION.

Has for its stronghold not surgical sterilization, but antiseptic surgery, which forgiving many minor surgical sins and glossing over gross mistakes cripples, without destroying bacteria, thus giving nature time until the chemicals are disposed of in the organism, to organise the defence and prepare for the offensive.

* Read at the Fourth Annual Meeting of the American Academy of Railway Surgeons at Chicago: Ill. and specially reported for the *Indian Medical Record*.

Looked at as antiseptics, chemicals are of great value, but from a germicidal point of view their action in surgical sterilization is very limited, and though nobody denies that certain chemicals are germicidals in proper concentration; still they have no immediate action and the bacteriologist has not as yet been able to definitely determine the germicidal action of any given solution on pure cultures of surgical bacteria, as it is impossible in *most* instances to eliminate the chemical before the test thread or whatever is employed is transferred to the culture medium.

Under the best of circumstances chemic sterilization is not only very slow but it is also injurious to our surgical instruments and materials and unpleasant to the surgeon, as well as even dangerous to the patient.

THERMIC STERILIZATION.

Is more complicated and more expensive than chemic, as fire and apparatus are necessary; but what little we lose in money is more than gained in time, since thermic sterilization acts in as many minutes as the chemic does in days, and those who prefer antisepsis to asepsis cannot possibly object to asepsis itself which they can easily and readily supplement with antisepsis whenever they may choose to.

Boiling water is the first, last and best sterilizing agent in surgery, and steam ranks next, while hot air is effective only when maintained for hours together in the neighbourhood of 300°F; but the mixed method of mechanical and thermic sterilization combined with judicious antisepsis best recommends itself to all surgeons.

SKIN STERILIZATION.

Cannot be effected through the entire thickness of the derma, whose surface must be so well prepared by shaving, washing, scrubbing, scraping and brushing, that scraping will not develop any cultures.

In cleansing the skin mechanically it is but common sense to use the warmest and cleanest water possible, and to shave off any hair that may come within the field of operation.

After the first series of shaving, scraping and thoroughly washing with soap and hot water, is over, (1) the English saturate the surface with turpentine and again scrub with soap, and a mixture of 1 in 20 carbolic and 1 in 500 sublimate solutions; but the Germans dry the part with sterile gauze after which they saturate it with 80 per cent. alcohol and brush it over with 1 in 2000 sublimate solution; the French use ether in place of alcohol.

The turpentine, alcohol or ether is employed to further mechanical disinfection by dissolving impurities of various kinds and helping to remove grease and fatty matters from the skin; but turpentine is not only the cheapest and most convenient of the three, but it is also the best as in return for removing its impurities, it varnishes the skin and covers up the bacteria more perfectly than does lanolin, though if lysol is going to be the antiseptic employed it must be used before the impregnation with turpentine, as it takes no effect when the skin is varnished.

The operator cannot be too careful of the absolute cleanliness and almost perfect asepsis of his hands, and the knife ought to be cleansed anew (or a fresh knife used) after the skin has been cut through, while the best method of surgically sterilizing the skin is:—(1) shave the operation field, (2) with a stiff sterile brush and plenty of hot sterile running water scrub the skin for several minutes, (3) cleanse the nails, (4) repeat the scrubbing using lysol, sublimate, carbolic acid, permanganate of potash or other antiseptic solution, (5) dry the skin with sterile gauze, (6) impregnate it with turpentine and (7) remove the oil with sterile warm water or a mild antiseptic solution. It ought to take 10 minutes to do all this.

STERILIZATION OF INSTRUMENTS.

While the English School merely immerses the instruments for two or three hours (before the operation) in a 1 in 20 carbolic acid solution, the German boils them for 5 minutes in a one per cent. sodium carbonate solution, and the French includes prolonged boiling in 0·5 per cent. potasium carbonate solution, dry heat and a variety of other methods.

The French are extravagant in their sterilization of surgical instruments and while they speak of surgical they really aim at bacteriologic sterilization. Some boil in the presence of potasium carbonate while others use boiling oil, vaselin, glycerine and such like. But these methods are superfluous and must give way to the German method (of boiling the instruments for a few minutes in weak alkali solution) which is simple, convenient, absolutely reliable, and can be done during the time the skin is being prepared for operation.

Many find that boiling water makes the instruments dull and rusty. This is true; but if rain or distilled water to which a few drops of Liquor Potassæ have been added, be employed, and the instruments not immersed till the water is boiling nor kept soaking for more than 2 to 5 minutes, they come out bright, clean, sharp and aseptic, and will not rust readily. Rusting can further be guarded against by wrapping the cutting instruments up in dry cotton.

Whenever thermic sterilization can be used, it is imperative to choose it in preference to all other methods on account of its mathematical accuracy; though where it is not practicable chemicals may be substituted for it, as they are better than nothing.

In hunting for a safe quick chemic method, the very much over-rated agent *formalin* was brought to the front

too conspicuously ; but time will show that though it may stick a long while to articles exposed to its action and thus give an exalted idea of its sterilizing superiority, formalin has no real advantage over carbolic acid or other chemicals.

DRESSINGS.

The Englishman sterilizes his dressings by the aid of carbolic acid, corrosive sublimate or other antiseptic solution, with subsequent wringing out in weaker solutions or sterile water before application ; but as the oozing from the wound precipitates the chemicals the *dry* dressings sold by the manufacturers in containers of guaranteed chemical sterility are a great humbug, in spite of the well-meant efforts of the manufacturing house to make them reliable : more especially as dressings, sterilised by chemicals, are reliable only when they are conveyed directly from the antiseptic fluid to the wound.

The German places his dressings, already thoroughly cleansed by washing and drying, in a steam sterilizer so built that the steam extending from above and escaping below expels all air, and at the same time permeates every particle of the articles placed in it. The whole process takes 30 minutes and the dressings are conveyed directly from the sterilizer to the wound.

To keep sterilized dressings ready for use all the time, BLOCH'S method is the most practical and the simplest. The gauze wrapped up in a double layer of filtering paper (readily penetrable by steam, which ordinary paper is not) is tied, marked and put into the sterilizer where it is thoroughly steamed and afterwards perfectly dried. And so long as the covering of filtering paper remains dry the contents of such packages will remain sterile. Any one can unroll the outer layer, and the surgeon picks out the inner which contains the gauze, ready for use.

The French system of Autoclave (*i.e.*, high-pressure steam) sterilization would be the acme of perfection, were it not that besides being expensive and cumbersome the autoclaves are stationary apparatus that answer admirably for large hospital practise ; but do not give the dry dressings that can be obtained in sterilisers made after the German principle.

SUTURES AND LIGATURES.

Are of various materials, but as examples of inabsorbable and absorbable suturing and ligating materials we shall take silk and catgut.

Silk being capable of remaining for almost any length time in strong antiseptic solutions of repeated boilings without detriment, the English school allows it to soak for a few days in 1 in 20 carbolic acid solution, while the German sterilizes it by steam or by a boiling ; but the Frenchman who is just as extravagant in his treatment of silk as in his sterilization of all other articles, boils his silk first in filtered water, then antiseptic solutions and finally steams it in the autoclave.

Catgut can neither be boiled nor steamed though it can be submitted to gradually raised *dry* heat of 230°F. without deterioration and can be sterilized by a variety of chemicals ; but it requires days and weeks for the antiseptic to accomplish the same purpose that heat can produce in a few hours.

Thus while the Englishman soaks his catgut for at least a week in carbolic acid solution, the German sterilizes it with various chemicals and the Frenchman by exposing it to dry heat for several hours.

As aseptic catgut sterilized by dry heat takes a clean Surgeon to handle it successfully since it is a good culture medium for bacteria, the problem of the future is to impregnate catgut with a non-irritating antiseptic which will remain with it until the last fibre is absorbed : When this is attained, and not till then, can we speak of ideal catgut.

DISCUSSION.

DR. JOHN E. OWENS, who mentioned some post-operative fatalities which were directly traceable to infection from the material employed for suturing and ligating, cautioned against the use of commercial catgut and strongly advised the surgeon *himself* to see to the proper sterilization of ligatures and sutures that he uses.

Dr. ARTHUR D. BEVAN believed that catgut could be thoroughly sterilized by a number of different methods which did not however assure primary wound-healing if the suture employed was catgut, which does sometmes contain irritating and toxic substances which may produce suppuration or which may contain some pathogenic germ capable of producing conditions resulting in suppurative changes : This, because no surgical operation is absolutely aseptic. He recounted his experiences with the various methods chemical, &c, of sterilizing catgut sutures, and said, that if we accept the fact that no wound is sterile, we would find that the factors which produce suppuration are many times chemical, not necessarily the germs themselves, because we always have them present, but other added factors among which are tension, tension produces necrosis, unremoved blood clots and dead or mutilated tissue, infection from the intestinal tract, a syphilitic or scrofulous diathesis, low health, diabetic symptoms &c. He pointed out that a clean incision unites much more readily than one in which we have tearing and gross tissue and concluded a lengthy though very interesting speech by pertinently remarking. "There are many other factors that are as important almost as the reduction of injection to a minimum, which is certainly all we can ever accomplish in the field of operation."

Dr. R. HARVEY REED, then told the meeting, that he had noticed that in infected wounds the infection only extends to the integument and down to the deep fascia. He was in favor of pyoktanin catgut because pyoktanin stained the catgut blue throughout when properly saturated rendering it easy to tell, before using the

suture, whether the suture was fully sterilized or not. He objected to chromicized catgut because it was stiff like wire and was less easily sterilized and absorbed with more difficulty than the pyoktanin catgut which was soft, pliable and quickly absorbed when employed as buried sutures. He did not think infection, when it did occur, was due to pressure or to infection from the suture employed, for if it were, it should also extend, which it does not, to the peritoneum which the suture often penetrates and includes in major operations, as in abdominal sections; and he found it was possible to have infection from outside, no matter how carefully applied or how aseptic the dressings. He tried to avoid this by using buried (*sterilised*) sutures of catgut, kangaroo tendon and silk-worm gut, but as in many instances where the sutures reached the surface, infection took place from without and worked down and inwards in spite of the sterilized materials, he now avoids stitch abscesses by employing silk for exposed and silk-worm gut for buried sutures, and dresses the wound with antiseptic dressings to prevent the entrance of germs from the surface following up the suture and producing an infective centre.

Dr. J. P. LORD thought that better results would be obtained if instead of putting the sutures so far apart as they do, surgeons took greater care to make the tension uniform and not to expect too much of any one suture.

Dr. L. E. LEMEN remarked that post-operative suppuration was chiefly, if not wholly, due to pressure necrosis induced by passing the stitches through the entire abdominal wall and including so much tissue in the stitch.

Dr. W. J. GALBRAITH believed more serious results were produced by the improper insertion of sutures than by the surgeon's knife, as *all* wounds, no matter how carefully the asepsis and antisepsis are carried out, contain more or less infective material and if a suture were applied too tightly it caused strangulation which promoted inflammation and tissue destruction, thus furnishing a suitable culture field for greater development of existing bacteria. Although he did not believe it possible to use any preparation of suture material without evil results, he had secured better results from catgut than from anything else.

Dr. W. W. GRANT statedhis greatest dependence on chromicized catgut (as prepared by Mr. LISTER) which he imported from London and placed in 5 per cent. carbolic acid solution, shortly before using it.

Dr. N. SENN stated that since their adoption of the modification of HOFMEISTER'S formalin preparation of catgut (for a detailed account of the method see *Indian Medical Record* Vol. XIV, page 204 under ideal catgut sterilization). Several of the hospitals in the United States had done away with the evil results and had noticed no stitch abscesses.

FIFTEEN YEARS' OBSTETRIC PRACTICE IN CALCUTTA.

By JAMES R. WALLACE, M.D., F.R.C.S.I.
Fellow of the Obstetrical Society of London, formerly Resident Surgeon to the Eden Hospital for Women and Children, Calcutta, &c., &c.

(*Continued from Vol. XIII., page 281*).

THIRD FIVE YEARS' SERIES.

IN the annexed tabulated statement I record the *third five years' series* of obstetric cases which embraces a total of 350. In the *first* five years' series I recorded 199 cases or a percentage of 3·31 labors attended per mensem. In the *second* five years' series I recorded 304 cases giving a percentage of 5·6 labors per mensem. In this *third* series I record 350 cases or a percentage of 5·8 labors per mensem. Of these 134 were natural labors, and in every instance I was pre-engaged to attend these cases, and in each case labor terminated favorably to both mother and child.

GENERAL ANALYSIS of the 350 cases shows that 197 were primaparæ, the oldest of whom was 37 and the youngest 15 years of age. Of primaparæ, 106 required the use of forceps, of multiparæ, 63 were so treated, 49 in their second labor, 9 in their third labor, 9 in their fourth labor, 3 in their fifth labor, 1 in the seventh labor, and 1 in the eleventh labor. There were 6 *twin* labors, 1 in a primaparæ, 1 in a second labor, 1 in a third labor and 3 in fourth labors.

PRESENTATIONS. The table shows the following:—Head 282, Breech 34, Arm 18, Face 12, Foot 11. Among these were 6 twin births, of which 7 were head and 5 breech. The Funis presented with the head in 2 cases and with the foot in 1. Of the 350 cases only 134 ought rightly to be classed as Natural Labors, i.e., the head presenting and labor being completed within twenty-four hours without difficulty or complication of any kind. At least 60 per cent. of the Head Presentations were of the Left Occipio Anterior variety.

INSTRUMENTAL INTERFERENCE:—Forceps 158, Podalic Version 18, Cephalic Version 1, Incision of Os prior to effecting delivery 10, Craniotomy 1, Blunt Hook 1.

ANALYSIS OF FORCEPS CASES:—Forceps were used in 158 cases for the following *reasons*:—For Tedious Labor (due to inequality of either the head of the child as compared with the vaginal passage, or *vice versa*) in 58 cases, Rigid Os in 34 cases, Uterine Inertia in 19 cases, Puerperal Eclampsia in 2 cases, for Obstructed Face to Pubis in 12 cases, for Obstructed after-coming Head in Breech Presentation in 7 cases, Narrow Pelvis in 11 cases, Hydrocephalus in 1 case, Puerperal Mania in 1 case, for Exhaustion or other unfavorable symptom, such as fever, sepsis etc. threatening danger to both mother and child 14 cases.

Dr. Wallace's Third Five Years' Series.—*Tabulated Statement of Midwifery Practice in Calcutta for Fifteen Years.*

Note.—E. stands for European, A. I. for Anglo-Indian, A for Armenian J. for Jew, H. for Hindu, M. for Mahomedan, and B. for Burmese.

No.	Name	Date of Delivery.	Race of Patient.	Age.	Number of Pregnancy	Presentation of child.	Operative treatment.	Child Born.		Result to Mother.	Remarks.
								Sex.	Dead or alive.		
		1892									
505	P. ...	4th Jany.	E.	24	1	Head.	Natural.	F.	Alive.	Recovery.	
506	J. ...	5th Jany.	A. I.	19	1	Do.	Do.	F.	Do.	Do.	
507	V. ...	5th Jany.	E.	29	1	Breech.	Forceps to after coming head.	M.	Do.	Do.	Great delay of head.
508	L. ...	19th Jany.	A. I	17	1	Head.	Natural.	M.	Do.	Do.	
509	B. ...	23rd Jany.	A. I.	25	1	Do.	Forceps.	F.	Do.	Do.	Two days in labor large head.
510	C. ...	31st Jany.	E.	20	2	Do.	Natural.	M.	Dead.	Do.	Dead in utero, four days before delivery, clear history of syphilis.
511	W. ...	11th Feb.	E.	40	4	Do.	Forceps.	F.	Alive.	Do.	Small passage; exhaustion.
512	M. ...	14th Feb	E.	31	4	Foot.	... .	M.	Do.	Do.	
513	S. ...	16th Feb.	E.	22	2	Head.	Forceps.	F.	Do.	Do.	Two days in labor, exhaustion.
514	M. ...	20th Feb.	H.	19	1	Head.	Forceps.	M.	Alive.	Recovery	Three days in labor, small passage, exhaustion.
515	F. ...	22nd Feb.	A. I.	21	1	Do.	Natural.	F.	Do.	Do.	
516	B. ...	1st Mar.	E.	27	2	Do.	Do.	M.	Do.	Do.	Congenital meningocele over orbit.
517	R. ...	1st Mar.	A. I.	24	1	Do.	Forceps.	F.	Do.	Do.	Three days in labor, exhaustion.
518	C. ...	5th Mar.	E.	30	1	Do.	Do.	F.	Do.	Do.	Large head, tedious.
519	W. ..	9th Mar.	E.	21	2	Do.	Do.	F.	Do.	Do.	Large head, inertia.
520	L. ...	9th Mar.	E.	24	1	Do.	Natural.	F.	Do.	Do.	
521	T. ...	26th Mar	E.	17	1	Do.	Do.	F.	Do.	Do.	
522	T. ...	31st Mar.	B.	22	3	Arm.	Podalic Version.	M.	Do.	Do.	
523	B. ...	8th April	E.	29	2	Head.	Forceps.	F.	Do.	Do.	Large head, tedious, exhaustion, fever.
524	A. ...	14th April	A. I.	16	1	Do.	Natural.	M.	Do.	Do.	
525	R. ...	15th April	E.	23	1	Foot.	.....	F.	Do.	Do.	
526	McD. ...	22nd April	A I.	42	3	Breech	.....	M.	Do.	Do.	

527	F.	...	29th April	E.	31	2	Head	Natural	F.	Do.	Do	
528	Y.	...	1st May	A. I.	20	1	Face.	Forceps.	M.	Do.	Do	Great exhaustion with high fever, 3 days in labor, native midwife.
529	R.	...	4th May	A. I.	40	4	Head.	Forceps & Blunt Hook.	F.	Do.	Died.	Two days in labor, very anæmic, died from cardiac failure.
530	J.	...	6th May	E.	26	1	Do.	Natural.	M.	Do	Recovery.	
531	P.	...	8th May	E.	17	1	Do.	Do.	M.	Do	Do.	
532	P.	...	10th May	E.	24	1	Head	Natural.	M.	Do.	Do.	
533	C.	...	19th May	E	29	2	Breech		F.	Do	Do	
534	T.	...	24th May	E.	26	3	Head & Funis		M	Do.	Do.	Child had very thick knotty, screw-like cord, labor was dry and yet lasted only 2½ hours.
535	F.	...	2nd June	A.	21	1	Arm.	Podalic Version.	F.	Do.	Do.	
536	L.	...	4th June	E.	26	1	Head.	Natural.	M	Do.	Do.	
537	B.	...	12th June	A. I.	17	1	Do.	Do.	F.	Do.	Do.	
538	R.	...	22nd June	H.	24	2	Do	Forceps	M.	Do.	Do.	Three days in labor. exhaustion and inertia, native dhai.
539	M.	...	29th June	E.	23	2	Do.	Natural.	F.	Do.	Do	
540	G.	...	4th July	H.	20	1	Breech.	Forceps to head	F.	Do.	Do.	Five days in labor, fever and exhaustion, native midwife.
541	D. C.	...	9th July.	A. I	26	1	Head.	Natural.	M	Do.	Do.	
542	R.	...	10th July	A. I.	15	1	Do.	Do.	M.	Do.	Do.	
543	L.	...	15th July	A, I.	24	2	Do.	Forceps.	F.	Do.	Do.	Large head, small passage.
544	J.	...	21st July	E.	21	1	Do.	Natural.	F.	Do.	Do.	
545	J.	...	26th July	E.	21	1	Do.	Do	M.	Do.	Do.	
546	P.	...	1st Augt.	E.	17	1	Do.	Forceps	M.	Do	Do	Small passage, perineum ruptured and stitched at once.
547	W.	...	3rd Augt.	E	25	1	De.	Natural	F.	Do.	Do.	
548	M.	...	14th Augt	A.I.	22	1	Do.	Do	F.	Do.	Do.	
549	A	...	24th Augt	E	17	1	Do	Do.	F	Do.	Do	
550	S.	...	11th Sept.	A. I.	22	2	Foot.	..	F.	Do	Do.	
551	F.	...	12th Sept.	A. I.	30	2	Head	Forceps	M.	Do	Do.	Two days in labor. head large, exhaustion.
552	B.	...	20th Sept.	E.	21	3	Do.	Natural.	M.	Do.	Do.	
553	Q.	...	29th Sept.	E.	32	2	Do.	Do.	F.	Do.	Do.	
554	G.	...	29th Sept.	A. I.	16	1	Do.	Forceps	F.	Do	Do.	Rigid os, tedious, exhausted.

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DR. WALLACE'S THIRD FIVE YEARS' SERIES. —*Tabulated Statement of Midwifery Practice in Calcutta for Fifteen Years.*—(*Continued.*)

No.	Name.	Date of Delivery	Race of Patient	Age.	Number of Pregnancy	Presentation of child	Operative treatment.	CHILD BORN		Result to Mother.	REMARKS.
								Sex.	Dead or alive.		
555	C ..	6th Oct.	E	24	1	Head	Natural.	M	Alive	Recovery	
556	M	7th Oct.	E	19	1	Do	Do.	M	Do.	Do.	
557	W. ..	10th Oct.	A I	35	6	Arm	Podalic version.	F.	Do.	Do.	
558	J. ..	11th Oct.	J	21	1	Head.	Forceps	M	Do.	Do.	Two days in labor, large head, inertia.
559	B. ...	14th Oct.	E	17	1	Do.	Natural.	F.	Do	Do	
560	R. ..	22nd Oct	A I.	26	2	Do	Forceps	M.	Do.	Do.	Inertia, fever and exhaustion.
561	B. ...	30th Oct	E.	35	5	Do	Natural.	F	Do.	Do.	
562	S. .	2nd Nov	E.	22	1	Do	Do.	M.	Do.	Do	
563	G .	3rd Nov.	A. I.	34	1	Head	Forceps	M.	Do.	Do.	Two days in labor, very small passage, exhaustion. Miss M Staley, M B (Lond) in attendance.
564	B.	8th Nov.	A. I.	31	2	Do	Natural	F	Do.	Do.	
565	T.	12th Nov.	E.	27	1	Face	Forceps.	M.	Do	Do.	Large head, exhaustion.
566	V. ...	19th Nov.	E.	23	1	Head.	Natural	F.	Do.	Do.	
567	M. ..	21st Nov	A. I.	40	4	Do.	Forceps	M.	Do.	Do.	Twelve years since previous labor, very exhausted, much adherent placenta.
568	L ...	21st Nov	E.	19	1	Do.	Do.	M.	Do.	Do.	Large head, tedious
569	G ..	26th Nov.	A I.	17	2	Do	Natural	F.	Do	Do.	
570	A. ..	1st Dec	E	30	3	Do	Do	F	Do.	Do.	
571	D'C ...	3rd Dec	A I.	21	4	Foot.		F	Do.	Do.	
572	W ..	14th Dec.	E.	37	5	Head	Forceps.	M.	Do.	Do.	Narrow pelvis, five days in labor.
573	S ..	20th Dec.	E.	27	2	Do.	Natural.	F.	Do.	Do.	
		1893									
574	P. ...	4th Jan	E	18	1	Head	Natural.	M.	Do.	Do.	
575	W. ..	6th Jan.	A.	26	1	Do.	Do.	M.	Do.	Do.	
576	N. ..	9th Jan.	E.	22	2	Do.	Forceps	F	Do.	Do.	Second time forceps, small passage, big child, exhaustion.
577	C ..	10th Jan	A I	20	1	Do	Do	F	Do	Do.	Large head, tedious

578	G.	...	21st Jan.	A. I.	34	3	Breech.	. ....	M.	Do.	Do.	
579	McD.	...	22nd Jan.	E.	29	2	Head.	Forceps.	F.	Do.	Do.	Inertia, exhaustion.
580	R.	...	27th Jan.	E.	18	1	Do.	Natural.	M.	Do.	Do.	
581	M.	...	2nd Feb	H	26	2	Face.	Forceps.	F.	Do.	Do.	Three days in labor, exhaustion.
582	W.	...	4th Feb.	A. I.	27	3	Head.	Craniotomy and Forceps.	F.	Dead.	Do	Three days in labor, hydrocephalic head, exhaustion, child dead and putrid in utero.
583	D'C.	...	9th Feb.	A. I.	42	6	Arm	Podalic version.	M.	Alive.	Do.	
584	Y.	...	14th Feb.	E	19	1	Head.	Natural.	M.	Do.	Do.	
585	J.	...	19th Feb.	E.	30	2	Do.	Do	M.	Do.	Do.	
586	S.	...	19th Feb.	E	25	1	Do	Incision of os and forceps.	F.	Do.	Do.	Rigid os, two days in labor, exhaustion.
587	L.	...	26th Feb	E.	23	1	Do.	Forceps.	M.	Do.	Do.	Large head, fever and exhaustion.
588	B.	...	27th Feb.	M.	24	3	Breech.	.....	M	Do.	Do.	Four days in labor, exhaustion, native midwife.
589	F.	...	1st Mar.	A I.	30	2	Head.	Natural.	F.	Do.	Do	
590	T.	...	3rd Mar.	E	21	1	Do	Do.	F	Do	Do.	
591	W.	...	11th Mar.	E.	40	2	Face.	Forceps.	M.	Do.	Do.	Two days in labor, inertia.
592	J	...	20th Mar	E	27	3	Foot		F	Do.	Do.	
593	S.	...	24th Mar.	E	20	1	Head.	Forceps	M	Do	Do.	Small pelvis, exhausted.
594	H.	...	2nd April	E.	37	1	Do	Do.	M	Do.	Do	Large head, two days in labor.
595	B.	...	3rd April	A. I	19	1	Breech.	. .	F.	Do.	Do.	
596	L.	...	7th April	M	24	1	Arm	Podalic version.	M	Do.	Do.	Four days in labor, fever and exhaustion, native midwife.
597	F	...	15th April	E	26	2	Head.	Natural.	F	Do.	Do	
598	L.	...	22nd April	B	32	8	Do.	Do.	M	Do.	Do	A Burmese princess, the youngest 8-para I have seen.
599	B.	...	27th April	A. I.	30	4	Do.	Forceps.	M.	Do.	Do.	Large head, two days in labor.
600	G.	...	30th April	E.	21	1	Do.	Natural.	M.	Do.	Do.	
601	P.	...	10th May	A. I.	16	1	Do.	Forceps.	F.	Do.	Do.	Small passage, tedious
602	B.	...	10th May	E.	19	1	Do.	Natural	M.	Do.	Do.	
603	S.	...	12th May	E.	23	1	Do.	Do.	F.	Do.	Do.	
604	F.	...	23rd May	A. I.	31	4	Arm.	Podalic version.	F.	Do.	Do.	
605	M.	...	29th May	E.	42	3	Head.	Natural.	F.	Do.	Do.	

DR. WALLACE'S THIRD FIVE YEARS' SERIES.—*Tabulated Statement of Midwifery Practice in Calcutta for Fifteen Years.—(Continued.)*

No.	Name.	Date of Delivery.	Race of Patient.	Age.	Number of Pregnancy.	Presentation of child.	Operative treatment.	Child Born.		Result to Mother.	Remarks
								Sex.	Dead or alive		
606	B. ...	30th May	E.	26	3	Breech.		M.	Alive.	Recovery.	
607	M. ..	7th June	E.	27	1	Head.	Forceps.	M.	Do.	Do.	Small passage, exhaustion.
608	C. ...	8th June	E.	30	1	Do.	Forceps and Incision of os.	M.	Do.	Do.	Rigid os, much prostrated.
609	F. ...	10th June	A. I.	16	1	Do.	Natural.	F.	Do.	Do.	
610	A. ...	24th June	B.	19	1	Breech.	Forceps to after coming head.	M.	Do.	Do	Three days in labor, very exhausted, native midwife.
611	G. ...	30th June	E.	21	1	Head.	Natural.	F.	Do.	Do.	
612	W. ..	2nd July	A. I.	27	2	Do.	Do.	M.	Do.	Do.	
613	B.	16th July	E.	23	1	Do.	Do.	M.	Do.	Do.	
614	W. ...	20th July	E.	29	2	Face.	Forceps	F.	Do.	Do.	Rigid os, three days in labor, much exhausted.
615	R. ...	1st Aug.	E	22	1	Twins Head. Breech.	. ...	M F	Do.	Do.	One large placenta.
616	M. ...	3rd Aug.	A. I.	18	1	Head.	Natural.	F.	Do.	Do.	
617	J. ...	6th Aug.	A. I.	19	1	Do.	Do.	F.	Do	Do.	
618	J. ...	9th Aug.	A.	24	1	Do.	Forceps.	M.	Do.	Do.	Large head, tedious, exhaustion.
619	T. ...	13th Aug.	E.	33	2	Do	Natural.	F.	Do.	Do.	
620	W. ...	14th Aug.	E.	35	3	Breech.	.....	F.	Do.	Do.	
621	T. ...	28th Aug.	A I.	37	11	Head.	Forceps	M.	Do	Do.	Large head, inertia, adherent placenta.
622	F. ...	2nd Sep.	A. I.	16	1	Do.	Natural.	M.	Do.	Do.	
623	R. ...	10th Sep.	E.	20	1	Do.	Do.	F.	Do.	Do.	
624	S. ...	17th Sep.	E.	25	1	Do.	Forceps.	F.	Do.	Do.	Very small passage, ruptured perineum, stitched at once.
625	W. ...	24th Sep.	E.	29	5	Do.	Natural.	M.	Do	Do.	
626	N. ...	2nd Oct.	E	25	2	Do	Forceps.	M.	Do.	Do.	Large head, tedious, exhausted.
627	W. ...	6th Oct.	E.	24	2	Do	Natural.	F.	Do.	Do.	
628	M. ...	7th Oct.	E.	17	1	Breech.	.....	F.	Do.	Do.	
629	J. ...	14th Oct.	A. I.	33	2	Head.	Forceps.	F.	Do.	Do.	Narrow pelvis, 1st delivery in Bombay, Craniotomy.

630	G.	...	21st Oct.	E.	26	2	Head.	Natural	F.	Alive.	Recovery.	Adherent placenta.
631	B.	...	25th Oct.	A. I.	27	1	Do.	Forceps.	M.	Do.	Do.	Deformed pelvis.
632	S.	...	2nd Nov.	E.	24	1	Do	Natural.	F.	Do.	Do.	
633	F.	...	3rd Nov.	E.	19	2	Twins. Breech. Breech.		F F.	Do.	Do.	Second time of twins, very small woman with narrow pelvis.
634	M.	...	9th Nov.	H	14	1	Head	Forceps	F.	Dead	Do.	A remarkable case of Eclampsia seen by Professor Joubert.
635	A.	...	10th Nov.	E	19	1	Do.	Natural.	F.	Alive	Do.	Dilatation by Barnes' Bags; incision of cervix and forceps, child dead in utero.
636	F.	...	11th Nov.	E	27	2	Do	Do.	M.	Do.	Do	
637	B.	...	16th Nov.	E.	21	1	Do.	Forceps.	F.	Do.	Do.	Small passage, tedious.
638	Q.	...	21st Nov.	E.	29	3	Arm.	Podalic Version.	F.	Do.	Do.	
639	P.	...	1st Dec.	E.	24	2	Head	Natural.	M	Do.	Do.	
640	J.	...	2nd Dec.	A. I	21	1	Do.	Forceps	M.	Do.	Do.	Very weak mother, exhausted.
641	M.	...	10th Dec.	E	31	1	Do	Incision of os and Forceps.	F.	Do.	Do.	Rigid os. two days in labor.
642	A.	...	16th Dec	E.	31	2	Do.	Natural.	F.	Do.	Do.	
643	S.	...	22nd Dec.	A I.	19	1	Do.	Do.	F.	Do.	Do.	
644	L.	...	1894 3rd Jany.	M.	23	1	Do.	Forceps.	F	Do.	Do.	Large head, inertia, 3 days in labor. native midwife.
645	J.	...	4th Jany.	E.	21	1	Do.	Incision of os and Forcepe.	M	Do.	Do.	Rigid os, tedious, 2 days in labor.
646	G.	...	8th Jany.	A. I.	22	2	Do.	Forceps.	F.	Do.	Do.	Narrow Pelvis, tedious.
647	O.	...	9th Jany.	E.	30	2	Do.	Natural	M.	Do.	Do.	
648	M.	...	14th Jany.	E.	26	3	Do.	Do.	M.	Do.	Do	Only one hour in labor.
649	A.	...	20th Jany.	E.	21	1	Do.	Do.	F.	Do.	Do.	
650	S.	...	22nd Jany.	A.I.	27	3	Do.	Do.	M.	Do.	Do.	
651	W.	...	27th Jany.	E	20	1	Do.	Do.	F.	Do.	Do.	
652	P.	...	4th Feb.	E.	19	1	Do.	Do.	F.	Do.	Do.	
653	J.	...	6th Feb.	J	21	1	Do.	Forceps	M.	Do.	Do.	Small passage, tedious.
654	B.	...	10th Feb.	E.	24	1	Foot.	....	F.	Do.	Do.	
655	T.	...	12th Feb.	E.	17	1	Head.	Natural.	M.	Do.	Do.	
656	R.	...	21st Feb.	J.	18	1	Do.	Forceps.	F	Do.	Do.	Large head, tedious, exhaustion

DR. WALLACE'S THIRD FIVE YEARS' SERIES.—*Tabulated Statement of Midwifery Practice in Calcutta for Fifteen Years.*—*(Continued.)*

NOTE.—E. stands for European, A. I. for Anglo-Indian, A for Armenian, J. for Jew, H. for Hindu, M. for Mahomedan, and B. for Burmese.

No.	Name	Date of Delivery.	Race of Patient.	Age.	Number of Pregnancy	Presentation of child.	Operative treatment.	Child Born.		Result to Mother.	Remarks.
								Sex.	Dead or alive.		
		1894									
657	J. ...	1st Mar.	E.	26	2	Breech.	.....	M.	Alive.	Recovery.	
658	B. ...	20th Mar.	E.	19	1	Head.	Natural.	M.	Do.	Do.	
659	S. ...	24th Mar.	A. I.	24	1	Funis and Head.	Forceps.	M.	Dead.	Do.	Child dead in utero, large head, tedious.
660	P. ...	25th Mar.	A. I.	30	2	Face.	Do.	M.	Alive	Do.	Two days in labor, inertia.
661	C. ...	25th Mar.	A. I.	21	2	Foot.	.....	F.	Do.	Do.	
662	L. ...	29th Mar.	E.	24	2	Breech	.....	F.	Do.	Do.	
663	W. ...	2nd April	E.	31	2	Do.	Forceps to after-coming head.	F.	Do.	Do.	Great delay with head, exhaustion
664	S. ...	6th April	A I.	26	4	Head.	Natural.	F.	Dead.	Do.	Dead in utero, 4th still birth in succession ; distinct ; syphilitic history.
665	M. ...	13th April	E.	39	6	Breech.	.....	M.	Alive.	Do.	
666	B. ...	16th April	E.	27	3	Head.	Natural.	F.	Do.	Do.	
667	L. ...	18th April	B.	33	9	Do.	Do.	F.	Do.	Do.	Youngest 9 para. I have seen, Burmese Princess.
668	G. ...	20th April	E.	20	1	Do.	Do.	F.	Do.	Do.	
669	T. ...	21st April	E.	30	1	Do.	Incision of os and forceps	M.	Do.	Do.	Rigid os, very tedious, much exhaustion.
670	M. ...	27th April	E.	25	3	Do.	Natural.	F.	Do.	Do.	
671	L. ..	6th May	A. I.	15	1	Do.	Do.	F.	Do.	Do.	
672	J. ...	8th May	E.	21	1	Do.	Do.	M.	Do.	Do.	
673	B. ...	9th May	A. I.	18	1	Do.	Forceps.	F.	Do.	Do.	Large head, inertia, exhaustion.
674	F. ...	17th May	A. I.	25	3	Arm.	Podalic Version.	M.	Do.	Do.	
675	T. ...	22nd May	E.	27	2	Head.	Forceps.	F.	Do.	Do.	Rigid os, two days in labor.
676	P. ...	2nd June	E.	20	1	Do.	Do.	M.	Do.	Do.	Inertia, three days in labor.
677	A. ...	3rd June	E.	23	1	Do.	Incision of cervix and forceps.	M.	Do.	Do.	Rigid os, three days in labor.
678	M. ...	10th June	E.	31	4	Breech.	.....	F.	Do.	Do.	

679	S.	...	14th June	A. I.	22	1	Head.	Forceps.	M.	Do.	Do.	Rigid os, 2 days in labor.
680	B.	...	15th June	E.	19	1	Do.	Do.	F.	Do.	Do.	Inertia, 2 days in labor.
681	F.	...	21st June	A. I.	29	2	Do.	Natural.	F.	Do.	Do.	
682	W.	...	22nd June	E	40	2	Do.	Do	F.	Do.	Do.	
683	G.	...	24th June	E.	31	5	Do.	Forceps.	M.	Do.	Do.	Head very large, weight of child 14 lbs.
684	G.	...	9th July	A. I.	37	4	Twins. Breech. Head.	.....	M F.	Do.	Do.	One very large placenta.
685	T.	...	20th July	A. I.	30	2	Breech	.....	M.	Do.	Do.	
686	W.	...	21st July	E.	19	2	Head.	Forceps.	F.	Do.	Do.	Large head, tedious,
687	J.	...	26th July	A. I.	17	1	Face.	Do.	M.	Do.	Do.	Large head, 2 days in labor.
688	B.	...	29th July	E.	19	2	Head.	Do,	F.	Do.	Do.	Tedious, fever, exhaustion.
689	S.	...	30th July	E.	29	4	Breech.	Forceps. to after coming head,	M.	Do.	Do.	Great delay with head
690	M	...	14th Augt.	E.	41	7	Head.	Forceps,	M	Do.	Do.	Rigid os, 2 days labor.
691	G.	...	17th Augt.	E.	36	4	Do.	Do,	M.	Do.	Do.	Rigid os, 2 days labor.
692	A.	...	18th Augt.	A. I.	19	1	Do.	Do.	F.	Do.	Do	Rigid os,
693	R.	...	20th Augt.	E.	24	1	Do	Do.	F.	Do.	Do.	Large head.
694	F.	...	22nd Augt.	E.	26	3	Do.	Do,	F.	Do	Do.	Inertia, exhaustion. Badly adherent placenta.
695	M.	...	24th Augt.	M.	16	1	Do.	Do,	M	Do.	Do	Rigid os, two days in labor.
696	T.	...	12th Sept.	E.	17	1	Do.	Do,	F.	Do	Do.	Fever, Exhaustion,
697	F.	...	12th Sept.	E.	29	2	Do,	Do,	M.	Do.	Do.	Rigid os.
698	W.	...	21st Sept.	E.	26	1	Do.	Do.	F.	Do.	Do.	Inertia.
699	P.	...	29th Sept.	E.	31	1	Foot.	.....	F.	Do.	Do.	Funis also presented,
700	S.	...	2nd Oct.	A. I.	36	3	Breech.	.....	F.	Do.	Do.	
701	H.	...	9th Oct.	E.	24	1	Head.	Forceps.	F.	Do.	Do.	Inertia, three days labor
702	B.	...	18th Oct.	A. I.	17	1	Do.	Natural.	M.	Do.	Do.	
703	L.	...	21st Oct.	A. I.	19	1	Do,	Do,	F,	Do.	Do.	
704	T.	...	24th Oct.	E.	25	1	Breech.	.....	M.	Do.	Do.	
705	H.	...	29th Oct.	A. I.	24	3	Head.	Natural.	F.	Do.	Do.	Adherent placenta,
706	F.	...	31st Oct.	E.	20	1	Do,	Forceps.	F,	Do.	Do,	Large head, tedious.

DR. WALLACE'S THIRD FIVE YEARS' SERIES.—*Tabulated Statement of Midwifery Practice in Calcutta for Fifteen Years.—(Continued.)*

No.	Name.	Date of Delivery.	Race of Patient	Age.	Number of Pregnancy.	Presentation of child.	Operative treatment.	Child Born.		Result to Mother.	Remarks
								Sex.	Dead or alive.		
707	B. ...	4th Nov.	E.	31	3	Breech.	. ..	M.	Alive.	Recovery.	
708	W. ...	5th Nov.	E.	20	1	Head.	Natural.	F.	Do.	Do.	
709	P. ...	8th Nov.	E.	24	1	Do.	Do.	F.	Do.	Do.	
710	L. ...	12th Nov.	M.	19	1	Breech.	.. ...	M.	Do.	Do.	Four days in labor, fever and exhaustion, native midwife.
711	F. ...	13th Nov.	E.	21	1	Head.	Natural.	F.	Do.	Do	
712	B. .	17th Nov.	H.	20	1	Do.	Forceps.	M.	Do.	Do.	Attended in consultation with Dr. S. K. Burman, 2 days in labor, exhaustion, very small passage.
713	M. ..	20th Nov	E	18	1	Do	Natural.	F.	Do.	Do.	
714	J. ..	27th Nov.	E.	34	4	Do.	Do.	F.	Do.	Do.	
715	S. ...	29th Nov.	E	29	3	Do.	Do.	M.	Do.	Do.	
716	R. ...	29th Nov.	A I.	27	4	Twins Head. Head.	.....	F. F	Do.	Do.	Two placentæ
717	M. ...	2nd Dec.	A. I.	22	1	Head.	Forceps.	M.	Do.	Do.	Small passage, ruptured perineum, stitched at once, adherent placenta.
718	W. ...	3rd Dec.	E.	36	2	Arm.	Podalic Version	M.	Do.	Do.	
719	E. ...	9th Dec.	A. I	27	4	Twins Breech. Head.	.....	F. F.	Do.	Do.	Three previous deliveries, single by forceps, narrow pelvis, one placenta.
720	D. ...	13th Dec.	A. I.	22	1	Head	Natural.	F.	Do.	Do.	
721	N. ...	15th Dec.	E	27	3	Do.	Forceps.	M.	Do	Do.	Small passage, very tedious, (one labor forceps, second natural)
722	Y. ...	20th Dec.	A I.	30	1	Breech	.	F.	Do	Do.	
723	L. ...	25th Dec.	E.	19	1	Head.	Natural.	F.	Do.	Do.	
724	P ...	27th Dec. 1895	A I.	23	1	Do.	Forceps.	M.	Do.	Do.	Large head, rigid os, two days in labor.
725	V ...	2nd Jany.	E.	29	1	Do	Incision of Cervix and Forceps	M.	Do.	Do.	Rigid os, fever, exhaustion, 4 days in labor.
726	L. ...	5th Jany.	E.	35	1	Breech.	Forceps to after coming head	F.	Dead	Do.	Narrow pelvis, 3 days in labor, child dead and putrid in utero.
727	F. ...	7th Jany.	E	40	2	Head.	Forceps.	M.	Alive.	Do.	Tedious, 2 days in labor.
728	M. ...	11th Jany.	E.	16	1	Do.	Do.	M.	Do.	Do	Large head, tedious.
729	S. ...	14th Jany.	A. I	24	2	Do	Do.	M.	Do	Do	Dr. Youman in attendance, large head, inertia
730	A. ...	16th Jany.	J	21	1	Do.	Do.	F	Do.	Do	Large head, tedious

731	R.	...	17th Jany.	E.	26	1	Head.	Forceps.	M.	Alive.	Recovery.	Rigid os, fever.
732	C.	...	20th Jany.	E.	20	1	Do.	Do.	M.	Do.	Do	Tedious, exhausted.
733	G.	...	25th Jany.	E.	17	1	Do.	Do.	F.	Do.	Do.	Large head, tedious.
734	T.	...	1st Feb.	A. I.	19	1	Do.	Do	M.	Do.	Do.	Rigid os, tedious.
735	J.	...	4th Feb.	M	17	1	Face.	Do.	F.	Do	Do.	Inertia, tedious.
736	W.	...	10th Feb.	E.	21	2	Head.	Natural.	F.	Do.	Do.	Large head, tedious.
737	B.	...	21st Feb.	E	34	1	Do	Forceps	M.	Do.	Do	Fever, exhaustion, 2 days in labor.
738	M.	...	26th Feb.	A.I.	25	1	Do.	Do.	M.	Do.	Do.	Large head, tedious.
739	F.	...	6th Mar.	A I	16	1	Do.	Do.	F.	Do	Do.	Fever, inertia.
740	W.	...	6th Mar.	E.	27	3	Arm.	Podalic Version.	M	Do.	Do.	
741	C.	...	8th Mar.	E	32	2	Face.	Forceps	F.	Do.	Do.	Large head. tedious.
742	L.	...	12th Mar.	E.	37	4	Head.	Forceps.	F.	Do.	Do.	Large head, rigid os, fever, exhaustion.
743	M.	...	16th Mar.	E.	26	2	Do.	Incision of cervix Forceps	M.	Do.	Do.	Large head, tedious,
744	A.	...	18th Mar.	E	19	1	Do.	Do.	M.	Do.	Do.	Tedious, fever,
745	F.	...	24th Mar.	E.	30	3	Do.	Natural.	F.	Do.	Do.	
746	B.	...	25th Mar.	E.	24	2	Do.	Forceps.	F.	Do.	Do.	Rigid os, exhausted.
747	McD.	...	30th Mar.	A. I.	17	1	Do.	Do.	F.	Do.	Do.	Inertia fever.
748	L.	...	2nd Apr.	E.	27	1	Foot.	.....	F.	Do.	Do.	
749	W.	...	9th Apr.	A I	15	1	Head.	Forceps.	M.	Do.	Do.	Inertia, large head.
750	R.	...	21st Apr.	A. I	22	1	Do.	Do	F.	Do.	Do.	Inertia, 2 days labor.
751	M.	...	26th Apr.	A. I.	26	1	Do.	Do.	M.	Do	Do.	Inertia, 3 days labor.
752	S	...	29th Apr.	E	27	2	Do.	Do.	M.	Do.	Do	Small passage, perineum ruptured, stitched at once.
753	P.	...	3rd May	E.	19	2	Do.	Do.	M.	Do.	Do.	Second time perineum stitched. Tedious, fever.
754	T.	...	12th May	E.	34	2	Do.	Do.	M.	Do.	Do.	Rigid os, exhaustion.
755	F.	...	20th May	A. I.	21	1	Do.	Natural	F.	Do.	Do.	
756	G.	...	22nd May	A. I.	37	3	Do.	Do.	M.	Do.	Do.	
757	P.	...	16th June	A. I	26	2	Arm	Podalic version	F.	Do.	Do.	
758	B.	...	26th June	E.	42	6	Breech.	.....	M.	Do.	Do.	

*Absent for a fortnight at Darjeeling.

DR. WALLACE'S THIRD FIVE YEARS' SERIES.—*Tabulated Statement of Midwifery Practice in Calcutta for Fifteen Years.—(Continued.)*

NOTE.—E. stands for European, A. I. for Anglo Indian, A for Armenian, J. for Jew, H. for Hindu, M. for Mahomedan, and B. for Burmese.

No.	Name	Date of Delivery.	Race of Patient.	Age.	Number of Pregnancy	Presentation of child.	Operative treatment.	Child Born.		Result to Mother.	Remarks.
								Sex.	Dead or alive.		
		1895									
759	V. ...	1st July	E.	29	2	Head.	Natural.	F.	Alive.	Recovery.	
760	F. ...	9th July	E.	25	1	Do.	Forceps.	F.	Do.	Do.	
761	W. ...	20th July	A. I.	31	3	Arm.	Podalic Version.	M.	Do.	Do.	
762	M. ...	26th July	E.	27	1	Head.	Forceps.	F.	Do	Do.	Very small passage, complete rupture of perineum, stitched at once.
763	P. ...	28th July	A.I.	36	3	Do.	Natural.	M.	Do.	Do.	
764	B. ...	2nd Aug.	E.	30	7	Do.	Premature	M.	Dead.	Death.	Four months mumified foetus found in utero after 1st foetus was expelled, mother died a month after labor from diarrhœa and fever.
765	L. ...	4th Aug.	E.	38	4	Do.	Natural.	F.	Alive	Recovery.	
766	B. ...	10th Aug.	E.	27	3	Do.	Do.	F.	Do.	Do.	
767	G. ...	14th Aug.	A I.	24	2	Do.	Forceps.	M	Do.	Do.	Rigid os, labor 3 days.
768	L. ...	17th Aug.	E.	26	3	Do.	Premature.	M.	Dead.	Do.	Seven months child, dead in utero, death of child followed a fall.
769	Y. ...	25th Aug	A I.	19	1	Do.	Natural.	F.	Alive	Do.	
770	B. ...	3rd Sep.	A.I.	21	1	Do.	Forceps	M.	Do.	Do.	Tedious, inertia, fever.
771	S. ...	8th Sep.	A.I.	30	5	Do.	Do	M.	Do.	Do.	Preceded by four still births due to syphilis, very tedious labor.
772	B. ...	9th Sep.	E.	18	1	Do.	Natural	F.	Do.	Do.	
773	J. ..	12th Sep	E.	27	4	Breech	.....	M.	Do.	Do.	
774	C. ...	13th Sep.	E.	24	3	Head.	Forceps	M.	Do.	Do.	Rigid os, 2 days in labor.
775	E. ...	15th Sep	E.	31	3	Do.	Do.	M.	Do.	Do.	Large head, 3 days in labor.
776	W. ...	21st Sep	E.	26	2	Arm.	Podalic Version	F.	Do.	Do.	Two days in labor
777	G. ...	28th Sep.	A.I.	16	1	Head.	Forceps	M.	Do.	Do.	Inertia, fever, exhaustion.
778	L. ...	7th Oct.	A.I.	21	1	Do.	Do	M.	Do.	Do.	Narrow pelvis, inertia.
779	T. ...	12th Oct.	E.	26	1	Do.	Do	M.	Do.	Do.	Large head, inertia.
780	B. ...	13th Oct.	A.I.	23	1	Do.	Natural	F.	Do.	Do.	

781	M.	...	14th Oct.	A. I.	36	4	Foot.	Cephalic Version.	F.	Do.	Do.	
782	V.	...	22nd Oct.	A.	25	1	Head.	Forceps	M.	Do.	Do.	Narrow pelvis.
783	D.	...	1st Nov.	H.	19	2	Do.	Natural.	F.	Do.	Do.	
784	G.	...	10th Nov.	E.	30	2	Do.	Forceps.	M	Do.	Do.	Eclampsia 6 hours before labor.
785	C.	...	10th Nov.	A. I.	17	1	Do.	Do	M.	Do.	Do.	Large head, ruptured perineum, stitched at once.
786	A.	...	16th Nov.	E.	19	1	Breech.	Forceps to Head.	M.	Do.	Do.	Head very long delayed.
787	N.	...	24th Nov.	E.	29	3	Head.	Forceps.	F.	Do.	Do.	Fever, exhaustion, 3 days labor.
788	W.	...	27th Nov.	E.	23	2	Do.	Natural.	M.	Do.	Do.	
789	T.	...	28th Nov.	A. I.	40	4	Face.	Forceps.	F.	Do.	Do.	Great delay with head.
790	Y.	...	8th Dec.	E.	19	1	Head.	Do.	M	Do.	Do.	Tedious, fever.
791	M.	...	11th Dec.	E.	31	2	Arm.	Podalic Version.	F.	Do.	Do.	
792	C.	...	12th Dec.	E.	24	2½	Head.	Forceps.	F.	Do.	Do.	Rigid os, 2 days in labor.
793	T.	...	21st Dec.	A. I.	27	2	Do	Do.	M	Do.	Do.	Rigid os, 2 days labor.
794	B.	...	27th Dec.	E.	20	2	Do.	Natural.	M	Do.	Do.	
795	B.	...	1896 2nd Jany. 4th Jany.	E.	30	3	Twins Head Head	.....	M F.	Dead Dead	Do.	Seven months twins, premature delivery due to fall. Second twin came away after 48 hours, 2 placentas.
796	D.	...	6th Jany.	E.	19	1	Head	Natural	M.	Alive.	Do	Mother suffered from 10 mammary abscesses after labor.
797	P.	...	10th Jany.	E.	26	2	Do	Forceps.	F.	Do	Do.	Large head, tedious.
798	R.	...	12th Jany.	E	34	2	Breech.	. .	F.	Do.	Do.	
799	W.	...	17th Jany.	E.	28	3	Head.	Natural.	M	Do.	Do.	
800	H.	...	25th Jany.	E.	29	3	Do.	Do.	M.	Do.	Do.	Badly adherent placenta.
801	C.	...	30th Jany.	E.	16	1	Do.	Forceps.	F.	Do.	Do.	Rigid os, 2 days labor.
802	T.	...	5th Feb.	E.	23	1	Do.	Natural.	M	Do.	Do.	
803	F.	...	9th Feb.	A. I.	31	1	Do.	Forceps	F.	Do.	Do.	Fever, exhaustion.
804	A.	...	16th Feb.	E.	35	2	Do.	Natural.	F,	Do.	Do.	
805	W.	...	26th Feb.	A. I.	16	1	Do.	Do,	M.	Do.	Do.	
806	G.	...	3rd Mar.	E.	23	1	Do.	Do,	F.	Do.	Do.	
807	P.	...	7th Mar.	E.	20	1	Do.	Forceps	M	Do.	Do.	Rigid os, 2 days labor.

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No.	Name.	Date of Delivery.	Race of Patient.	Age.	Number of Pregnancy.	Presentation of child.	Operative treatment.	Child Born.		Result to Mother.	Remarks.
								Sex.	Dead or alive.		
806	L. ...	15th Mar.	E.	29	1	Head.	Forceps.	F.	Alive.	Recovery.	Large head, perineum badly torn, stitched at once.
809	M. ...	20th Mar.	A. I.	27	2	Do.	Do.	F.	Do.	Do.	Small passage, tedious, fever, exhaustion.
810	A. ...	24th Mar.	E.	36	3	Do.	Natural.	M.	Do.	Do.	
811	D. ...	26th Mar.	A. I.	19	1	Do.	Forceps.	F.	Do.	Do.	Small passage, tedious.
812	M. ...	26th Mar.	E.	17	1	Do.	Do.	M.	Do.	Do	Rigid os, 2 days labor.
813	D'C. ...	29th Mar.	A. I.	23	1	Breech.	.....	M.	Do.	Do.	
814	W. ...	8th April	E.	30	2	Head.	Natural.	F.	Do.	Do.	
815	N. ...	11th April	E.	24	1	Do.	Do.	F.	Do.	Do.	
816	LeB. ...	16th April	A. I.	32	1	Do.	Forceps.	M.	Do.	Death.	Three days labor, native midwife, puerperal mania, very large head, child weighed 10 lbs. very high temperature. No sepsis. Died 7th day after labor maniacal.
817	C. ...	21st April	E.	27	1	Do.	Natural.	M.	Do.	Recovery.	
818	R. ...	22ndApril	E.	32	2	Do.	Do.	F.	Do.	Do.	
819	B. ...	29th April	A. I.	26	1	Do	Do.	M.	Do.	Do.	
820	F. ...	30th April	E.	19	1	Do.	Forceps	F.	Do.	Do.	Large head, 2 days labor.
821	M. ...	6th May	E.	21	1	Do.	Natural.	F.	Do.	Do.	
822	A. ...	11th May	A. I.	16	1	Do.	Do.	F.	Do.	Do.	
823	F. ...	12th May	A.I.	35	2	Do.	Do.	M.	Do.	Do.	
824	T. ...	20th May	A. I.	22	1	Do.	Forceps.	F.	Do.	Do.	Rigid os, 3 days labor.
825	W. ...	3rd June	E.	29	1	Do.	Do.	M.	Do.	Do.	Rigid os, 2 days labor.
826	R. ...	7th June	E.	17	1	Do.	Natural.	F.	Do.	Do.	
827	J. ...	10th June	A. I.	28	3	Breech.	.....	M.	Do.	Do.	
828	V. ...	18th June	A. I.	19	1	Head.	Forceps.	M.	Do.	Do.	Large head, small passage, exhaustion, perineum torn, stitched.
829	J. ...	21st June	E.	30	2	Arm.	Podalic Version.	F.	Do.	Do.	
830	B. ...	29th June	E.	26	1	Head.	Forceps.	M.	Do.	Do.	Rigid os, 3 days labor.
831	P. ...	5th July	J.	22	1	Do.	Do.	M.	Do.	Do.	Four days labor, exhaustion.

833	W.	...	8th July	E.	24	1	Head.	Forceps.	M.	Alive.	Recovery.	Large head, exhaustion.
833	L.	...	8th July	E.	37	4	Breech.	.....	F.	Do.	Do.	
834	R.	...	24th July	E.	27	3	Head.	Natural.	M.	Do.	Do.	
835	B.	...	4th Augt.	E.	20	1	Do.	Do.	F.	Do.	Do.	
836	T.	...	9th Augt.	A.	19	1	Do.	Incision of cervix Forceps	M.	Do.	Do.	Rigid os, 2 days labor, os incised.
*837	X.	...	10th Augt.	A. I.	15	1	Do.	Forceps.	F.	Do.	Do.	Tedious, 4 days labor.
838	P.	...	19th Oct.	E.	24	1	Do.	Natural.	M.	Do.	Do.	
839	M.	...	25th Oct.	E.	30	2	Do	Forceps.	F.	Do.	Do.	Large head, great exhaustion.
840	J.	...	31st Oct	E.	21	1	Breech.	.....	M.	Do.	Do.	
841	B.	...	6th Nov.	E.	26	2	Head.	Forceps.	M	Do.	Do.	Large head, tedious.
842	W.	...	14th Nov.	A I.	23	1	Do.	Incision of cervix, Forceps.	M.	Do.	Do.	Rigid os, cervix incised.
843	J.	...	21st Nov.	E	27	3	Face.	Forceps.	F.	Do.	Do.	Three days in labor, rigid os.
844	F.	...	23rd Nov.	E.	38	4	Foot.	. ...	M.	Do.	Do.	
845	D.	...	2nd Dec.	A.I.	16	1	Head.	Natural.	F.	Do.	Do.	
846	R.	...	5th Dec.	E.	28	2	Do.	Do.	F.	Do.	Do.	
847	J.	...	6th Dec.	J.	22	1	Do.	Forceps.	F.	Do.	Do.	Rigid os, 3 days labor.
848	C.	...	12th Dec.	A. I.	24	1	Do.	Do.	M.	Do.	Do.	Fever, exhausted, 2 days labor.
849	S.	...	12th Dec.	A. I.	37	4	Breech.	.....	F.	Do.	Do.	
850	H.	...	23nd Dec.	E.	26	1	Head.	Forceps.	M.	Do.	Do.	Large head, 2 days labor.
851	Y.	...	23rd Dec.	M.	16	1	Arm	Podalic Version.	M.	Do.	Do.	Four days in labor, native dhai.
852	P.	...	27th Dec.	E	24	1	Head.	Forceps	M.	Do.	Do.	Rigid os, 2 days in labor.
853	E.	...	30th Dec.	E.	32	2	Do.	Natural.	F.	Do.	Do.	

*I was taken ill 18th August and was absent from work up to 17th October.

A MIRROR OF PRACTICE.

A CASE OF DIPHTHERIA SUCCESSFULLY TREATED BY THE TOPICAL USE OF CITRON JUICE.

By Assistant Surgeon E. S. Pushong,
Station Hospital, Lucknow.

The patient was a Bengalee girl, aged 12. The history given was a feeling of indisposition for a couple of days previous, extremely dull and apathetic, with discomfort about the left side of the throat, the girl imagining that this was due to a prick from a fish bone, an accident which was supposed to have happened while eating some fish a few days before—she seemed extremely hungry and stated that she would be well if she could only swallow.

Clinical Features.—At the first glance it looked like a case of mumps, so intense was the cellular infiltration of the neck on both sides, with collateral swelling of the cheeks and floor of the mouth. I found the tonsils enlarged and congested, the posterior pharynx being completely hidden from view, the soft palate was also much congested and tumefied.

The diphtheritic membrane was seen to stretch from the soft palate over the left tonsil, but its posterior extension could not be guaged owing to the inability to see beyond the presenting surfaces of the tonsils. Breathing was natural—Temperature was 102°F. Pulse even at this early stage (3rd morning) was weak and fluttering. Very little difference took place for the first three days under treatment, on the fourth day however the throat was more open to view, the tonsils having become somewhat smaller, and I managed while swabbing the throat to remove a great portion of the membrane, without violent effort. Citron Juice was now used to swab the throat with.

On the 5th day, I found that the right tonsil which up to this date was clear, with the exception of a very small speck on its anterior surface, was now covered with the diphtheritic membrane. Temperature still ranged between 102° & 103° F. with a little muttering delirium during the night. Treatment was persevered in, with the result that on the sixth morning nearly the whole of the throat was clear. I also noticed a peculiar nasal twang about the voice, and when swabbing the throat a slight muco-purulent discharge exuded from the left nostril. This led me to suspect invasion of the posterior nares, there was slight embarrassment in the breathing which caused great anxiety, I however still employed the same line of treatment with the pleasing result that the next day while the girl was blowing her nose, which she had been advised to do several times a day, numerous large strips of membrane came away, all nasal symptoms for a time subsiding with the exception of a slight serous discharge.

On the 9th day, the posterior pharynx could be clearly seen, though the throat was still studded with small islands of membrane, especially on either side of the uvula and behind the anterior pillars of the fauces. Temperature still ranged between 102° & 103° F.

The temperature continued high owing to the formation of a left parotid abscess, which I afterwards opened and drained, when it gradually fell to normal.

On the 12th day, there was a muco-purulent discharge from the right nostril, this time with a feeling of pain and discomfort about the region of the nasal bones, and slight difficulty in breathing, but in a couple of days, the muco-purulent discharge gave place to a simple serous one. Temperature still between 101° & 103° F.

On the 17th day, I opened and drained the parotid abscess. The child was now convalescent, having so far escaped with but a slight post-diphtheritic paralysis of the soft palate.

Treatment :—

R	Tr. Feri. Perchl. ...	...	mx.
	Quinia Sulph. ...	...	gr. iv.
	Potass Chlor. ...	...	grs. viii
	Tr. Aconiti ...	...	mii.
	Aquæ.	ad	℥i.

T. D. Until complete disappearance of the membrane.

R	Acidi Carbolici	...	℥i.
	Camphoræ	...	grs. 20
	Ol. Oliv.	...	℥i.

To be applied locally every 2 hours.

Inhalation every hour during the day till the fourth day when the throat was found sufficiently open to use this Gargle.

R	Acidi Carbolici	...	℥i.
	Ol. Terebinth ...	...	℥i.
	Aeqa. Bull.	...	oj.
R	Gly. Acid. Carbolici ...	...	℥iv.
	Gly. Acid. Borici ...	...	℥vi.
	Aquæ.	ad	℥i.

Sig. A small quantity to be used as a gargle frequently during the day with equal quantities of warm water, as warm as could be borne. Citron juice was ordered to be dropped into the nose every 2 hours, and the following nasal injection was used several times a day.

R	Acid. Borici	...	℥iv.
	Boracis	...	℥vi.
	Aquæ.	ad	oi.

Sig. Use with equal quantities of warm water.

Gentle stimulation was adopted from the onset, ℥ss. of brandy being given every 2 hours, this being replaced by Coca-wine, half a wineglassful three times a day when convalescence was established.

Remarks.—Though the diphtheritic virus is superficial and in the membrane itself, and does not extend into the subjacent mucosa, yet I cannot help but applaud the now nearly lost sight of, yet once highly praised treatment by citron juice.

I cannot help but praise the juice, for though the membrane for the first two days had stopped all apparent growth under the application of Carbolic Acid and Camphor, yet there was no sign of separation although the swab was applied with some force on these occasions, until the third day when I resolved to try citron juice in combination, with the result that on the fourth day I was able with ease to remove a great portion of it.

FATAL DIARRHŒA DUE TO ASCARIS.

By Surgeon-Major R. E. Wrafter, I. M. S.
Dehra Doon.

The patient, a child ten years of age, was sent to the local Municipal hospital for treatment of diarrhœa. The patient looked very ill. The eyes were sunken, the pulse small and thready, the face shrunken and anxious. On inquiry I learned that she had passed that morning four or five watery motions, and along with her motions, one big round worm. Had it not been for the presence of this worm, I would have treated it as a case of diarrhœa. But this single worm pointed to no other conclusion than that this diarrhœa was set up by worms. Acting on this diagnosis, I gave her one two-grain powder of santonine, and in addition, a stimulant mixture to brace her up. Next morning she passed two worms. The medicine was continued, and she passed the following day nine worms, the day after nine worms, the next day 28 worms, then 31, till in 8 days she passed 111 worms, the diarrhœa was kept under control by suitable astringents, but she gradually got worse, and died a week later, considering the number of worms passed, merely 111, it is no wonder that this set up an irritation which brought on the fatal diarrhœa. Whether the diarrhœa was due to quite a distinct cause and that the worms did not contribute to the affection are questions which I leave to the decision of the reader, (from Dr. Mitra's paper in the *Boston Medical and Surgical Journal*, December 5, 1896.) Braithwaites' Retrospect of medicine. Vol. CXIII, January to June 1896, p. 88.

Remarks.—Worms are an occasional cause of diarrhœa in children. One of the most constant signs is the passage of a quantity of jelly-like mucus with the motions, while at the same time the bowels are disordered and the general health is unsatisfactory. Such are the chief symtoms, which are however, by no means positively distinctive of worms. A leucorrhœal discharge from the genitals may also occur in children, as a result of the irritation caused by worms, especially by thread worms. The malady mostly occurs in greatly enfeebled lymphatic and scrofulous girls from six to fifteen years of age, and may be more or less profuse, and of a yellowish-white colour, adhesive, sometimes glueing the surfaces of the vulva together. The child does not experience any pain or inconvenience, and the complaint, in simple cases, is unattended with any external signs of injury or inflammation.

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COBRA-BITE TREATED WITH TOBACCO ASH: RECOVERY.

By Trigamlall Mayanlall, C.M.S.
In Medical charge, Bilara Dispensary, Marwar.

While attending to the roof of her house on the morning of the 7th July 1898, Tijee, a hindu female, aged 23 years, was bitten on her right wrist by a *cobra*. The wounds bled pretty freely but as the woman was in a semi-conscious condition when brought to the dispensary at about noon, her face was freely douched with an infusion of *neem* leave for nearly 15 minutes. This rallied her somewhat and at 1-P.M., she was sufficiently conscious to complain of feeling drowsy and asked us to not disturb her.

Quarter of an hour later she was made to swallow 60 grains of tobacco ash—the residue obtained by smoking tobacco mixed with treacle and certain aromatics and consumed in a *hooka* or Indian pipe—and this was repeated thrice, at half-hour intervals; but at 2-10 P.M., she vomited a quantity of clear watery matter and an hour later sat up saying she felt less drowsy, though there was a good deal of nausea and headache.

She was given some neem leave to chew and the tobacco ash reduced to 20 grain doses at 45 minutes intervals till 7-P.M., when the giddiness left her and she was given some milk to drink.

At 10-P.M., she was given her *last* dose of 20 grains of tobacco ash—making in all 360 grains—and kept on milk diet for the remainder of the night during which she was not allowed to close her eyes. No further treatment was necessary and the woman left the dispensary, (well) on the morning of the 8th July.

I have successfully used tobacco ash in *five* other cases and would like to learn whether any of my confréres has had a similar experience; but a curious feature in this case was, that when the woman chewed the *neem* leaves at 2-P.M, she said they tasted sweet, though at 4-P.M. she found they had their natural bitterish taste.

:o:

CARBUNCLE ASSOCIATED WITH DIABETES.

By Anthony Fr. Fernandes, C.M.S.
Daman, Portuguese India.

On the morning of the 15th July ultimo, I was called to see a Mahomedan gentleman. I found him in fever, 103·2 accompained with ague, headache etc. Thinking this a mere febrile attack I treated him accordingly with satisfactory results. On my third visit the patient drew my attention to a painful spot in the dorsal region, and at the same time complained of frequent micturation. I found the spot complained about of a dull red colour, intensely painful and tender to the touch, about an inch to the right of the inferior angle of the left scapula. I orderd extract Belladonna mixed with glycerine to be smeared over the part and a linseed poultice applied over it and the morning urine to be sent to me for examination. The result of which was, Sp. gravity 1035, reaction acid, and distiont traces of sugar.

The tender spot in a few days became very inflamed and the pain unbearable, but the patient would not allow any incisions to be made. Ultimately suppuration took place, the pus being discharged from several mouths. Carbolic acid, 6 m. was now injected, iodoform dusted over the part and a charcoal poultice applied. This was continued until the discharge became nominal in quantity. The mouths all closed with the exception of one, which healed in a few day's time—micturation was now almost normal and no sugar was to be found in the urine.

Indian Medical Record.

16th September 1898.

PLAGUE IN INDIA. THE PLAGUE CASES IN CALCUTTA IN 1896.

Professor W. J. Simpson, M.D., Late Health Officer of Calcutta, in his address on "Plague in India," delivered before the British Medical Association at Edinburgh, reiterates his opinion that a number of cases of true plague occurred in Calcutta in 1896, as follows.

"That a disease, such as plague, may exist in a mild form for a long time before it manifests itself, either in its more virulent type, or in a local outbreak of considerable dimensions, may be gathered from the occurrences in Calcutta. The facts briefly stated are that the Shropshire Regiment which distinguished itself in Hong Kong, in cleansing plague-infected houses, lost three of its number in that colony from the disease, while double that number were attacked. From that time the regiment at intervals suffered in small groups from fever accompanied by glandular enlargements. This illness they brought with them to Calcutta, in January, 1895, and then other drafts of soldiers, who had never been to Hong-Kong, but who were brought in intimate association with their affected comrades, were attacked with a similar malady. At first the disease was diagnosed * * * as malarial fever with bubo, and ultimately the cause was registered as unknown. Some medical officers considered it to be a new disease; one of the medical officers was attacked in June of 1896, and the glands of the groin, axilla and neck were affected. In October, 1896, besides an imported case of illness from Bombay with fever and glandular enlargements, a number of cases occurred in Calcutta, but with symptoms of a more acute form, and of less duration than the cases in the Shropshire Regiment, which was still continuing to get fresh cases. There was fever, white-coated tongue with red tip and edges, congested eyes, dull intellect and glandular enlargements, mostly in the groin; children and young adults were chiefly affected. An adult who was affected and died, had all the typical symptoms of plague. From experience gained later in Bombay and Poona, I have not the slightest doubt that two other suspected cases which proved fatal, were cases of plague, and that the other cases of fever with glandular enlargements were benign plague, more severe in its character than some seen by me in Bombay and Poona. A peculiarity of these mild cases was that in some, a bacillus similar to the bacillus of plague was found in the blood. It could not be cultivated, however, unless, as it seemed to me, large quantities of blood or serum was drawn. In one portion of the town, somewhat later, there was a glandular and very fatal illness among rats whose organs were filled with diplobacilli, similar to the plague bacilli. Sick rats left their holes and slowly hobbled about or rested, apparently in a dazed condition. As many as 100 affected rats were counted in a small grain depot in one day. The houses were treated as plague infected, a campaign was waged against the rats, and evidently with success, for the epidemic among the rats ceased. It is necessary to state here that my views regarding the nature of this glandular sickness among the inhabitants was not held by a higher authority, and that isolation of such cases was considered unnecessary. On the other hand, my further experience convinces me that the medical men who agreed with my views were right in their diagnosis, while some of the microscopical specimens sent to Kitasato elicited the opinion they were probably plague bacilli. It is a question, therefore, that ought to be very carefully inquired into. In connection with the occurrence of such cases in Calcutta, and their nature, the Report, dated 16th July 1897, of Dr. M. J. Rosenau, the Californian Quarantine Medical Officer to the supervising Surgeon-General of the United States Marine Hospital Service, which I came across the other day, is interesting. It is as follows:—

"National Quarantine Station, Angel Island, California, 16th July, 1897.

"Sir,—I have the honour to report the British ship Annie Maud, one hundred and forty-three days from Calcutta, was placed in quarantine to-day for disinfection. A short while after leaving Calcutta one of the crew was taken ill with swellings in the axilla, groin and elbow, and died. Two more of the crew suffered with buboes, from which they recovered.

"Very respectfully, M. J. Rosenau, Passed Assistant Surgeon, U. S., M. H. S."

One other point is deserving of notice, *viz.*, that in 1897 there was an epizootic outbreak in Calcutta among cattle in the same locality in which the rats had died some months before, and though it was called rinderpest at the time the symptoms differed somewhat from the ordinary cases under that name, and *post-mortem* examination showed a very congested and enlarged condition of the mesenteric glands."

It is very improbable that this *quaestio vexata* will ever be definitely settled to the satisfaction of all concerned.

Plague Research and Administration.

Professor Simpson's remarks on these subjects are very apt and appropriate They have a special value coming from one who is intimately acquainted with the country and the way its Medical Services are organised.

The facts stated are merely trite commonplaces in India, but we fancy they must have had the ring of startling novelties in Edinburgh.

"Most of our knowledge concerning plague is in a fluid condition, principally because, it is a new disease to the present generation of medical men, and because the opportunities afforded for its study in India have not been taken sufficient advantage of. In fact, they are great opportunities lost. Good work has undoubtedly been achieved by the different Foreign Commissions sent out by the several European Governments, and by the Scientific Committee appointed by the Government of Bombay in corroborating and adding to the researches of Kitasato on the bacillus, but the essentially English method introduced by Simon and his contemporaries and which is continued with such excellent results by the Local Government Board in England has not been applied—I refer to the regular and systematic investigation of plague by special and thoroughly trained medical

officers, case by case and out-break by out-break, including all the circumstances connected with each, and combining with this research laboratory work. This ought to be done, no matter what is the cost, for at the most it can only be insignificant to the losses which India is being now subjected to. It was reckoned that Bombay at the time of the height of the plague lost £100,000 a day. Over 100,000 persons have died of the plague in Western India. The other day I heard Lord REAY declare that plague is the most important problem that the Government of India has to deal with. There can be no doubt that this is so politically as well as socially, and I would plead for the inhabitants of India, and for the sake of those who have commercial and social interests with her, and for the sake of humanity, that every effort which science and money can afford should be made to learn more about this disease.

This is impossible under the present arrangements, owing to India possessing no trained sanitary service. This is a subject I dwelt on very fully in 1894 at the Indian Medical Congress, and there was a resolution of the Government of India that such a service was to come into existence in the year 1900. The plague has probably upset the arrangements intended to have been made before such a service can be established, the first arrangement being the education in sanitary science in medical schools of the members of the proposed service. Plague has emphasised the absolute necessity of this service and the utter helplessness of India to combat disease without such a trained service. I divide the medical part of a sanitary service into three branches—(1) the administrative, (2) the investigative, and (3) the scientific—which should be in close connection with one another, and in large towns should form parts of one large department. Broadly in England, the administrative is represented by the local health officers and their subordinates, the investigative by the medical inspectors of the Local Government Board, and the scientific by the laboratory researches made into the causes of disease in connection with special investigations of either the medical inspector or local health officer.

In the absence of a proper sanitary service in India, laymen had to direct the operations against plague in Western India, and in a number of instances soldiers had to be employed for house to-house inspection. Apart from the fact that it is impossible to turn men suddenly into well-trained sanitary inspectors, there was in this arrangement always the risk, among a highly imaginative people, unaccustomed to see the military in their houses, of considerable alarm being created, which would be intensified by the wildest rumours; while it was certain to give a handle to the many political agitators, who were only too ready to seize every opportunity for brewing discontent and mischief. However suitable the system might be for a military station, it could not be adopted for Indian towns generally. The policy which has kept the military apart from the people, except in cases of riot and other exceptional instances, appears to be one on a very sound basis. Plague no doubt is an exceptional event, but it is too much connected with the domestic habits of the people to be dealt with except by agents to whom they are accustomed. To the members of the British Medical Association, as well as to those accustomed to the methods adopted in England with regard to epidemics, the system of placing the control and direction of an infectious disease into the hands of laymen must seem extraordinary. The following extract taken from one of the despatches published in one of the blue books in 1897, will serve to illustrate the system. It is as follows:—"In view of the rapidity with which plague was spreading in the Satara district, a committee under the presidency of the Hon. Mr. SPENCE, and comprising the following officers, Mr. LELY, I.C.S. Mr. R. A. LAMB, I.C.S. Mr. A. C. LOGAN, I.C.S., and Lieutenant-Colonel J. W. WRAY, all of whom have had wide experience of plague measures, was appointed to devise measures for the prevention of the spread of the disease." I am sure the exceptionally able and distinguished administrators on this Committee, and who belong to a Government which is splendidly organised in other respects, would be the first to acknowledge that an organization composed of laymen is not fit to deal with epidemic diseases. The system can only be excused under the exceptional circumstances of there being in the country no properly trained sanitary service whose duty would be to control epidemics. A native and European sanitary service is needed to protect the civil population against the invasion and ravages of disease, just as a European and native army is required to protect them from the invasion of foreign armies.

Later on in the epidemic, by the despatch of Army medical officers and Indian medical officers from other parts of India, and by the sending out of a large contingent of medical men from England by the India Office, a nucleus of an administrative department was formed. But with reference to the Army medical officers, and the Indian medical officers, it was only robbing Peter to pay Paul, for many districts requiring European medical officers were denuded of them. As a matter of fact, without plague duties, the medical officers of the Indian Medical Service have for many years been overworked and are not sufficient in number for the ordinary duties which have been assigned them and have a well-founded grievance in their inability to obtain the leave and furlough due to them. If we now turn to the second part of a sanitary service, namely, the investigative branch, consisting of a body of highly trained men whose sole occupation is to search out the causes of an epidemic and inquire personally into the manner in which it spreads among the inhabitants, it is found that no such branch exists in India. From the foregoing it will be seen that two of the most important branches of a sanitary service in India have still to be formed.

As regards the scientific branch, the Government of India and the Government of the North-West Provinces have been fortunate in possessing for some years past the services of Surgeon-Lieutenant-Colonel D. D. CUNNINGHAM, and Mr. HANKIN. Two laboratories, however, in a vast country like India, do not meet its requirements. Moreover, for the past eighteen months Professor CUNNINGHAM'S laboratory has been closed, owing to his retirement and there being evidently no one to take his place. When the plague broke out in Bombay the Government of India very wisely requisitioned the services of M. HAFFKINE, who was on a visit to the country pushing forward his

anticholera inoculations. And in a short time M. HAFFKINE announced his brilliant discovery of a new method of combating plague. This discovery was not, I would point out, made suddenly after the Government of India requested him to go to Bombay and provided him with a laboratory, but it was the result of many years' work in the laboratory, beginning at least ten years previously from the time M. HAFFKINE directed his attention to anticholera inoculations. I mention this because there is a disposition in some quarters to consider laboratories expensive luxuries, unless some discovery of the first magnitude is speedily made.

The Government of India has always been imbued with the great importance of establishing laboratories in India, but the state of finances has invariably blocked the way. This difficulty, however, disappeared in a most charming and unexpected manner in 1897, when a number of the Princes in India expressed their desire to commemorate the sixtieth year of Her Gracious Majesty's reign by establishing a Health Institute for India, which should have M. HAFFKINE as its first director.

The spontaneity of the offer and the generosity with which it was made was enhanced by the peculiar appropriateness of this royal memorial to our beloved Empress Queen, whose reign has been so distinguished for the advances made in scientific and preventive medicine. The Princes were anxious that the site should be chosen and the foundation of the Health Institute laid on the day of the Jubilee. Owing to delays over which possibly the Government of India had not full control, in consequence of its plague and famine work, the auspicious day was allowed to pass, and no foundation stone was laid. Everyone acquainted with India will know the importance of an auspicious day. It is the symbol of success and good fortune.

Exciting events follow quickly on each other in India and crowd out the preceding. War in this case, with its distractions and expenses, burst out in the North-West Frontier, and the golden moment was lost for the establishment of a magnificent Health Institute, which, while serving as a noble monument of the loyalty and liberality of the Princes, would at the same time be for India a landmark in the Victorian Era. Let us hope, however, that the check, however regrettable, is only of a temporary nature, though it requires a sanguine mind to over-look the fact that delays mean new interests arising, a certain amount of chagrin, and the imperilling of a noble project.

A similar fate, owing to similar causes, appears to threaten the Pasteur Institute of India, for which Rs. 77,000 was collected over two years ago, and a site offered by the Punjab Government. A letter from the Committee of Management of the proposed Pasteur Institute was addressed, over eighteen months ago, to the Government of India, asking for their sanction to this site. At a recent meeting of the Committee the members had to adjourn because no reply had been received to their letter.

I have given these instances, not because I think the Government of India unfavourable to these proposals, but as illustrating the fact which is too familiar with those interested in sanitary progress in India, that under present arrangements, even the most important sanitary matters cannot have the attention paid to them which is necessary, and that the only remedy is a properly constituted sanitary service, similar to that which I drafted in my address in 1894, and which was approved of then by the Government of India.

As regards plague in India, it appears to me that the disease has come to stay, at least for a considerable time and it is consequently important on this ground alone, quite apart from other reasons, that a trained sanitary service should be established, and while doing all that is known to check its ravages, it is also necessary to systematically investigate and study the disease from every point of view, which cannot be done without laboratories and a specially trained service."

———:o:———

THE SIXTEENTH MEETING OF THE COUNCIL OF THE INDIAN MEDICAL ASSOCIATION.

In accordance with Notices issued by command of the President, the Sixteenth Meeting of the Council of the Indian Medical Association was held at its Office, 50, Park Street, Calcutta, on Tuesday the 23rd August, 1898 at 6 P.M.

Present.—Dr. LAL MADHAB MUKERJI, Rai Bahadur, (President, in the Chair). Drs. J. G. ANDERSON, H. W. JONES, K. G. SIRKAR, RAKHAL DAS GHOSE, and J. R. WALLACE.

Business.—(1). The Notice calling the meeting having been read, the Minutes of the last regular meeting of the Council were read and confirmed.

(2). The Secretary laid on the table letters on the subject of Medical Education and Medical Examinations in India from the Director-General, Indian Medical Service, the Director of Public Instruction, Bengal, the Director of Public Instruction, Bombay, the Director of Public Instruction, Madras, the Registrar of the Bombay University, the Secretary to the Government of the Punjab, and the Secretary to the Government of Madras. The letters placed on the table all gave evidence of sympathy and appreciation with the efforts of the Council except the letter from the Government of Madras, which indicates the irritable and hostile spirit of the Medical College Council of Madras in its treatment of the representation of the Indian Medical Association. In view of the fact pointed out in the letter of the Director of Public Instruction of Madras that "The First Examination in Arts is *now* the general education test for admission to the L. M. S. Examination." and in view of the statements made in Surgeon-Major-General C. SMITHCOPE'S communication to the Madras Government, that the improvements made in Madras are quite recent and are in accordance with many of the recommendations of the Council of the Association, the Council regards the Resolution of the Madras Medical College Council as not only wrong, but absolutely uncalled for. For the satisfaction of the local medical profession it is deemed proper to insert the correspondence of the Madras Government.

MEDICAL EDUCATION AND MEDICAL EXAMINATIONS IN INDIA.

G. O., No. 338, Education, dated 7th June, 1898.

Read.—the following letter from J. R. WALLACE, Esq., M.D., F.R.C.S., Secretary, Indian Medical Association, to the Chief Secretary to the Government of Madras, dated Calcutta, 20th May 1898 :—

Here follows the letter of the Council as it appeared in the *Indian Medical Record*, of 1st June, 1898.

Order—No. 338, Educational, dated 7th June, 1898.

The foregoing letter from the Indian Medical Association will be referred to the Director of Public Instruction and the Surgeon-General for any remarks they may see fit to offer.

(True Extract) G. S. FORBES, *Secretary to Government*. To the Director of Public Instruction and Surgeon-General.

READ—also the following papers :—

From Surgeon-Major-General C. SIBTHORPE, C.B., F.R.C.P.I., Surgeon-General with the Government of Madras, to the Secretary to Government, Educational Department, Ootacamund, dated 11th July 1898, No. 286-Tour.

With reference to G. O., No. 338, Educational, dated 7th June 1898, I have the honour to submit the following remarks.

2. Many of the remarks of the Indian Medical Association are based on its experience of the condition of Medical Education in Northern India, and do not apply to Madras.

3. It will be seen from the *revised* Madras University By-Laws 192 to 237 and from the schemes for the re-organization of the Medical College and schools *now before* the Government and partly disposed of in G. O., No. 654, Educational, *dated 22nd October 1896*, that all possible steps *are being taken* to improve the tone of medical education in this Presidency, and that the Government is doing its best to look after the interests of the public by upholding the standard of medical education. Such important reforms can only be introduced gradually if they are to be appreciated and accepted by the public.

4. Considering the varying standards of education in India, I feel some diffidence in giving an opinion as to whether it will be possible to carry out the reform suggested by the Association, *viz.*, uniform standards of preliminary examination, of education and of professional examination throughout the whole Indian Empire.

5. As regards the proposed formation of a Medical Council to exercise disciplinary powers similar to those of the General Medical Council of Great Britain, the idea is undoubtedly an excellent one, but it appears difficult to put it into practice. The Council in India would as a matter of necessity be composed exclusively of Government servants, *as there are so few medical men outside the Government Service who would be worth being placed on it*. Such a Council would not in my opinion be of much advantage. It will, I think, serve the the purpose in view, if the universities are given disciplinary powers over their graduates.

6. The Association's remark that "unfortunately in this country at the present day the tendency is to lower and not to elevate the standard of medical education" is hardly applicable to Madras. As shown in the preceding paragraphs, the tendency is otherwise in this Presidency. We have no private schools which grant their own diplomas. Such a system is certainly pernicious and ought not to be tolerated—in fact no schools should be allowed to spring up except under the supervision and approval of the Educational Department as advised by the Chief Administrative Medical Officer of the Government.

7. It is not a fact that in Madras the Matriculation opens the way for the L. M. and S. degree. Candidates for this degree are *now* required to have passed the First Arts Examination before entering on their medical studies.

8. I agree with the Association that there should be uniformity in the degrees granted by Indian Universities by adopting the same nomenclature. In Madras a Degree in Sanitary Science has also been instituted, which the Association does not apparently seem to be aware of.

9. As regards the Military Assistant Surgeon class, students for this grade in Madras are educated almost to the L. M. and S. standard. A few years ago a trial was made, with the sanction of the Government of India to stop cleemosynary education and to recruit the department from amongst private candidates possessing the L. M. and S. degree of an Indian University, but as the scheme did not succeed, a reversion had to be made to the old stipended pupilage system.

10. The Madras Hospital Assistants are not educated in the vernaculars. Sometime ago there was a Local Fund school in Nellore which trained some of its men in the *vernaculars for local work*, but the school has since been abolished and the requirements of the district board are now met by the Medical Department. The system in force in Madras practically meets all the recommendations of the Association in this respect.

11. With reference to the appointment of professors to teach special subjects, Government is aware that great care is exercised in selecting the *best men available* and that no nomination is made unless it is jointly recommended both by the Surgeon-General and the Director of Public Instruction.

From the Hon'ble Mr. D. DUNCAN, M.A., D.SC., LL.D., Director of Public Instruction. To the Secretary to Government, Educational Department, dated Madras, 22nd July 1898, No. 7974.

With advertence to G. O., No. 338, Educational, dated 7th June 1898, referring, for my remarks, letter from the Indian Medical Association, Calcutta, on the subject of reform in medical education and medical examinations in India, I have the honour to subjoin the resolution of the Medical College Council on the above reference.

"The Council being of opinion that the Indian Medical Association is a body in no way representative of medical opinion in India or even in Calcutta, and in view of the fact that Dr. WALLACE's letter contains such glaring inaccuracies and misstatements (especially as regards the standards of professional education and examination in Madras), consider that no useful purpose would be subserved by detailed discussion of the points raised in Dr. WALLACE's letter."

2. In these remarks of the Council I fully concur.

ORDER—No. 498, Educational, dated 11th August 1898.

Recorded.

No. 499, Educational, dated 11th August 1898.

(True Extract)

H. TREMENHEERE, *Secretary to Government.*

To the Surgeon-General.

„ Director of Public Instruction.

Editor's Table.

GOVERNMENT OF MADRAS, EDUCATIONAL DEPARTMENT.

LETTER FROM H. TREMENHEERE, ESQ., I.C.S.,

Secretary to the Government of Fort St. George.

To

THE SECRETARY OF THE INDIAN MEDICAL ASSOCIATION.

SIR,

I am directed to acknowledge the receipt of your letter, dated 20th May 1898, and to forward herewith a copy of G. O., No. 498, Educational, dated 11th August 1898, for your information.

I have &c., F. J. WILSON,

OOTACAMUND, *For Secretary to Government.*

11th August 1898.

After full discussion of the above subject it was *Resolved* :—That the Council of the Indian Medical Association hereby expresses its disapproval of the action of the Madras Medical College Council, as being improper, prejudiced and misleading, and that such action is calculated to injure the cause of higher medical education and to further damage the reputation of the medical educational agencies employed by the State of India.

Resolved, that further reasonable time be allowed for replies from the various Governments and that in the event of failure to obtain satisfactory action from the authorities in India, the Secretary be empowered to move the India Office and the General Medical Council of Great Britain in this matter.

(3) MONOPOLY OF PRIVATE PRACTICE BY GOVERNMENT DOCTORS.

The Secretary placed the following letter having reference to the above subject, upon the table.

FROM THE SECRETARY TO GOVERNMENT, N.-W.P. & OUDH.

TO THE SECRETARY, INDIAN MEDICAL ASSOCIATION.

Dated Naini Tal, 13th August 1898

SIR,

I am directed to state that the Government of India has forwarded to this Government a copy of your communication dated the 21st May 1898, and of its enclosures, containing the suggestion that in large cities and hill stations Government Medical Officers should be prohibited from engaging in general and family practice as apart from purely consultative practice. The suggestion has arisen out of the correspondence on the petitions sent to the Government of these Provinces by certain private British Medical Practitioners in Mussoorie for the abolition of the post of Civil Surgeon at that station, or his being debarred from private practice. I am to inform you that the Government of India has duly considered the matter and finds no grounds for interfering with the orders of the Government of the North-Western Provinces and Oudh which were conveyed in its Secretary's letters, Nos. 441-V-310B, and 169-V-310B, dated respectively the 8th July 1897 and 28th February 1898.

I have &c., W. H. N. IMPEY,

Secretary to Government, N.-W. P. and Oudh.

After due discussion of the above subject it was decided that the Secretary do now appeal to the Secretary of State for India, and that arrangements be made for questions to be asked in Parliament in relation thereto.

(4). THE IMPORTATION OF DOCTORS AND NURSES FROM ENGLAND FOR PLAGUE DUTY IN INDIA.

After due discussion of the above subject the following resolutions were proposed and carried unanimously :—

Resolved—That the Council of the Indian Medical Association have viewed with considerable anxiety and alarm the policy of the Bengal Government in importing from England, medical men and nurses for plague duty in this Presidency, when local talent of suitable quality was so largely available.

This policy has resulted in a decided hardship to medical men and nurses in this country, who are in every way qualified for such duties, and the Council feel that it has just ground to complain against the action of the Government. They further desire to point out that such a policy, while inflicting a grievous wrong on local talent, by placing an unmerited brand of inferiority upon medical men and women educated in this country, not only stamps the system of Government medical education in India with the stigma of incompetency, but renders still more tangible and real the disabilities under which the Domiciled European and Indian Communities labor under the present system of Government.

If the plea be raised by Government that it was necessary to import English medical and nursing labour because of its superiority to locally-trained labour, the Council feel that this plea only still more strongly emphasises the position which it maintains, that State medical education in India is an admitted failure and demands reform. The Council from a public stand-point desire most emphatically to state that the importation of British medical and nursing labour for Plague duties, was absolutely unnecessary ; and the utilization of outside talent, in view of the fact, that the men and women so employed were without experience of tropical diseases, of the languages, customs and social and religious prejudices of the people of the country, was a serious mistake, involving, as it does, the unnecessary expenditure of large sums of money in the passage to and fro of the persons so engaged by the India Office, the payment of large salaries, such as in no case would be paid to locally-trained labour, and the continued expenditure of large sums on such imported agencies, whether employed or unemployed.

Resolved—That the above Resolution be forwarded to the Bengal Government, the Plague Commission, and the Government of India, with a covering letter.

(5) DEATH OF DR. K. N. BAHADHURJI, M.D. LONDON.

The Secretary reported the death of Dr. KAIKHUSROO NUSERWANJI BAHADHURJI, which took place on Monday the 15th August at Malabar Hill, Bombay, from typho-malarial fever after a short illness of ten days. Dr. BAHADHURJI was born on the 2nd November 1860 and so was only 38 years of age when he died. He was educated in Bombay

and in London and took the degrees of M.D. and B.S., of the London University. He served as Honorary Physician to the Jamsetjee Hospital and Professor of Pharmacology in the Grant Medical College. He did much important public work for reforms in the medical services and in the local medical profession of India. He was President of the Bombay Medical Union and also of the Medical and Physical Society of Bombay. He did excellent work in the recent plague epidemic in Bombay. It is believed that the severe physical labor he undertook in connection with plague work and in the management and control of a special plague and fever hospital which he personally organised, was the immediate cause of constitutional break-down which brought on fever and his untimely end. His funeral was attended by thousands of his own countrymen and fellow townsmen and by almost the whole body of the local medical profession of Bombay.

The Council unanimously adopted the following resolution :—The Council of the Indian Medical Association most deeply mourns the sad and untimely death of Dr. K. N. BAHADHUNJI, and records its sincere esteem of his brilliant talents and of his zeal and devotion to the best and highest interests of the medical profession of India. It recognises in his unfortunate death the loss of a brother who was a leader among his brethren, by virtue of exceptional merit and of a blameless character. The Council desires to express its earnest sympathy with his bereaved relatives, to whom it requests the Secretary to forward a copy of this resolution.

With a vote of thanks to the Chair the proceedings were closed.

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MEDICAL EDUCATION IN INDIA.
THE REPLY OF THE MADRAS MEDICAL COLLEGE COUNCIL TO THE INDIAN MEDICAL ASSOCIATION.

IT is fortunately not often that we have to deal with such an unsatisfactory, misleading and autocratic official communication, as that which emanates from the Medical College Council of Madras, in reply to the letter of the Indian Medical Association on the subject of Reform in Medical Education, which was addressed to the Chief Secretary of the Government of Madras, on the 20th May, 1898 The full text of the Government Letter in which the College Council's offensive paragraph is embodied, is published in this issue, in the Association's Report.

The Madras Medical College Council's reply is couched in the following terms "The council being of opinion that the Indian Medical Association is a body in no way representative of medical opinion in India or even in Calcutta, and in view of the fact that Dr. WALLACE'S letter contains such glaring inaccuracies and misstatements (especially as regards the standards of professional education and examination in Madras), consider that no useful purpose would be subserved by detailed discussion of the points raised in Dr. WALLACE'S letter."

It is a striking commentary on the small amount of interest that is taken in the subject of medical reform, that the Government of Madras should be content to accept this reply as it stands, without further inquiry or explanation of any kind.

It is curious too, that the Medical College Council should be put in the position of pronouncing judgment upon their own case, though at the same time it must be remembered that the remarks of the Indian Medical Association, far from being directed mainly at Madras, touched only in the briefest manner on the system of medical education prevailing there.

No surer method could be devised for white-washing government systems and government officials than the far too common one of referring all controvertible questions for the decision of the very officials, whose department or conduct is the subject of dispute.

An excellent example of this occurred not long ago in Calcutta, when the notoriously unsatisfactory condition of the European General Hospital rendered a Government inquiry imperative. What was the surprise of every one to find that the President of the Court was the Head of the Hospital, and that for members he was thoughtfully provided with the majority of his staff!

That inquiries of this kind cannot be impartial, goes without saying.

But to return to the College Council's reply, we first note as strong evidence of the prejudice underlying it, the fact, that not content with confining themselves to their proper domain, Madras, they *ultra vires*, go out of their way to make it more or less comprehensive for the whole of India.

The reply contains two statements and an expression of opinion ; 1. That the Indian Medical Association does not represent medical opinion in India or even in Calcutta ; 2. That the letter of the Association is full of glaring inaccuracies and misstatements, and the opinion is expressed that no useful purpose would be gained by discussing it.

Now these two statements we must characterise as misleading and false. With the first we shall deal presently, the second we will consider at once.

From the way this statement is worded, it is evidently intended to convey the impression that there are a *large* number of inaccuracies and misstatements in the Association's letter, and that these inaccuracies and misstatements not only relate to Madras, as is specifically stated, but more or less to the whole of India.

As we have said, the College Council were not asked to reply for the whole of India, and nothing but prejudice or pique on their part could have induced them to bring in this side allusion, in support of which, they do not bring forward one particle of evidence.

In as far as Madras itself is concerned, we turn from the vague statement of the College Council to the letter from Surgeon-Major General C SIBTHORPE, C B., which precedes it, to discover what support there is for this sweeping charge of inaccuracy, and to our astonishment we can only find one point on which the accuracy of the Association's letter is impugned.

It appears that the Association was wrong in stating that the matriculation opens the way to the L. M. & S. degree, and that the First Arts Examination is necessary.

Here is the whole ground for the accusation of inaccuracy. But when we further find that this change is a *recent* innovation, one of many which have been adopted, we think we are justified in saying that the accusation

for all practical purposes falls to the ground, and that it should never have been made.

Surgeon General SIBTHORPE's letter is for the most part pleasant reading. It shows clearly that the necessity for reform has been fully recognised in Madras, and that steps have been taken in that direction. Far from opposing, it forms the strongest justification of the action that has been taken by the Association.

From it we learn that schemes for the re-organization of the Madras Medical College and Schools have been drawn up and partly disposed of that "all possible steps are being taken to improve the tone of medical education in this presidency."

That "We have no private schools which grant their own diplomas Such a system is certainly pernicious and ought not to be tolerated."

That with regard to the Hospital Assistant Class, "the system in force in Madras practically meets all the recommendations of the Association in this respect."

Yet in spite of all this evidence of their own activity, all this evidence to show that the question of reform in medical education has pressed upon them and won their earnest attention, the College Council go out of their way to stultify themselves, and to declare that the very subjects to which they have devoted so much time and consideration are unworthy of being discussed!

Surely only prejudice or pique could have led to such a wrong-headed statement

It would have been more courteous and more truthful if the College Council had openly acknowledged the importance of the subjects dealt with in the letter of the Indian Medical Association, and pointed to the steps already made by them in this direction.

With reference to the question of the formation of a body comparable to the General Medical Council to supervise education and protect the public from the dealings of unqualified persons, we regret that Surgeon Major General SIBTHORPE should have disfigured his remarks by such an egotistical and wantonly insulting statement as that, "there are so few medical men outside the government service, who would be worth being placed on it," It would have been better for him if he could have concealed his personal prejudices and proclivities under a more suave exterior. It hardly becomes Dr. SIBTHORPE as the head of a large educational system, to thus decry the value of his own teaching, by boasting of its incapability of turning out good men.

He might remember that good teachers make good scholars.

The statement is however too obviously false and one sided to be worth refuting at length.

"Such a Council" he says, "would not in my opinion be of much advantage. It will, I think serve the purpose in view, if the universities are given disciplinary power over their graduates." Yes certainly they ought to have this power, but how would that effect the numerous diplomates of the private schools which are constantly on the increase, and how could it tend to suppress the unlicensed practitioner?

These points are unexplained!

The Council, we note, says that the Indian Medical Association does not represent medical opinion in India or even in Calcutta. Such a statement is very easily made, and is only what might have been expected from such a body as the Madras Medical College Council.

It is obviously equally easily and more truthfully denied and disproved. A glance at the latest Annual Report of the Association would prove the utter worthlessness and falsity of this statement. The enormous list of the Association's Membership, and the fact that this list embraces every section of the local profession, is the best refutation of this prejudiced assertion.

Of course the Association does not pretend to represent the opinion of the limited number of medical men holding official positions in the Commissioned Government Services; they are well able to look after themselves, but it is their very exclusiveness and their lack of sympathy with all their non-official brethren that has called into existence, and made necessary, such a body as the Indian Medical Association.

There is a large number of private practitioners throughout the length and breadth of the land, a body of men that is increasing in size and importance every day, whose interests are put on one side, and whose prospects are thwarted; it is this body of independent private practitioners and the members of the Local Medical Services, which the Association claims to represent, and the questions it takes up, are taken up and pushed forward, solely in their interests and in the best interests of the public.

CONTRA-INDICATIONS FOR THE BICYCLE.

MOST medical men, says the *International Medical Magazine* whether cyclists or not, will agree with E. B TURNER when he asserts that the following conditions form absolute contra-indications to cycling (1) pregnancy (2) menstruation, (3) the three months following parturition, and (4) before the age of seven years. Further, the morbid states of the heart, lungs, kidneys and brain, which contra-indicate other forms of muscular exercise, will also preclude cycling. Most writers are agreed that acute pelvic inflammation, recent displacements of the pelvic organs, fibromyomata, ovarian cysts and hæmatoceles form distinct contra-indications to cycling but it may be well here to give the list of gynecological troubles which Fauquez (12) has drawn up and in the presence of which the exercise must be abandoned. It is as follows; (1) amenorrhœa, in connection with pulmonary phthisis, cancerous affections, diabetes and organic diseases of the heart or kidneys; (2) metrorrhagia, or excessive menstruation, (3) inflammation of the uterus and its appendages, acute metritis, painful chronic metritis, hemorrhagic or purulent endometritis, salpingitis, ovaritis, salpingo ovaritis, perimetritis, pelvic cellulitis, and pelvic abscess, (4) pelvic hæmatocele, and uterine fibroids during the hemorrhagic period; and (5) in vulvitis and vaginitis before complete cure has been effected. With regard to certain other gynecological affections, such as minor degrees of prolapse, chronic pelvic inflammation, subinvolution, and uterine retroversions and anteversions, medical opinion is not yet fully formed; in instances such as these named, the gynecologist ought to make a complete survey of each individual case, and form his own opinion thereupon This, however, seems to be certain: that women wearing a well fitting pessary are not debarred from cycling. Women of advancing years, especially if near the menopause, should be extremely careful with regard to this form of exercise.

CURRENT ART NEWS.

TREATMENT OF RABIES BY THE INJECTION OF NORMAL NERVE SUBSTANCE.

THE following is the full text of a very important note by M. V. BABES of Bucharest which was recently read before the French Academy of Science at Paris.

"In 1889, I observed that persons bitten by rabid animals who were subjects of neurasthenia, epilepsy or melancholy, were, after undergoing Pasteur's treatment, partly cured of these diseases also. From this observation I endeavoured to treat cases of neurasthenia, melancholia, and epilepsy by injections of nervous substances, especially with the spinal cord of sheep and rabbits.

My regretted friend CONSTANTIN PAUL declared to the Academy of Medicine at Paris in February 1892, that he was convinced of the good effect of these injections which he described as the procedure of Professor BABES.

Applying this process himself at Paris, he had obtained a series of remarkable results, which he lost no time in communicating to the Academy of Medicine, while I on my side published my results in the Deutsche Medis Wochenschrift.

The illness and death of my friend having interrupted the clinical study of this procedure, it is only recently that its study has been again taken up in a scientific and experimental manner.

I had already suspected that the nerve substance ought to possess to a certain extent the power of combatting the infections which attack the nervous system and especially the nerve cells. Thus on examining the different organs of animals immunised against rabies, I showed that the antirabic substance in those animals only existed in the blood and nervous system, especially in the cerebro-spinal fluid.

I then showed that at a certain time the blood contains antirabic substances, while the nervous system does not

In localising the lesions of rabies in the nerve cells of the bulb and of the spinal marrow and in considering the virulence of the grey matter in this disease, I was led to admit that the virus of rabies was localised in these cells and that these lesions and the symptoms of rabies stand to each other in the relation of cause and effect

In 1889, I discovered the property which the serum of immunised animals possesses in the cure of rabies, and as I wanted to antagonise experimentally the action of the virus of rabies and the antirabic serum, it was necessary to find out the source of the latter.

As it had been demonstrated for tetanus that the tetanus toxin is attracted to the same nerve cells, and that these cells secrete an anti-tetanic substance, it was foreseen that the nerve cell by means of this important function and by its stability should have the power of resisting direct attacks from the virus of rabies

In these cases it is necessary to suppose that the normal nerve cell contains, or secretes a substance, which up to a certain point can oppose the rabic infection

I have therefore tried to prevent or cure rabies by my method, that is by the subcutaneous injection of a certain quantity of the nerve substance of the bulb and spinal marrow of healthy animals. First I tried in collaboration with M. RIEGLER, if we could paralyse (neutralise) the virus experimentally with the nerve substance, but while we found that one part of the blood of dogs, which was most highly immunised, could paralyse up to 50 parts of the virus, one part of the bulbar substance from a sheep or a rabbit did not succeed in paralysing one part of the virus. And even 10 parts of the bulbar substance had no appreciable effect upon one part of the fixed virus.

However, experimenting with M. [illegible], I succeeded in obtaining a decided action, preventive or curative, with the nerve substance against the virus of rabies, by means of using a sufficiently large quantity of the nerve substance and not too strong a virus.

Thus on inoculating, by trephining, four dogs with a virus obtained from rabbits after two days passage, and treating three of the dogs for ten days with daily injections of 5 grammes of an emulsion obtained from the spinal cord of a healthy sheep, the control animal died on the 15th day of rabies, one of the treated dogs died on the 20th day of rabies and the other two recovered.

In repeating this experiment upon four dogs treated alike, only one recovered; but, in commencing the injections three days before the cranial infection with three dogs, and in infecting a control animal at the same time, the last succumbed to rabies on the 12th day, while the other three recovered.

As two months have elapsed since these experiments were carried out, they may be regarded as conclusive.

With rabbits the results have been much less decisive, which is explained by the fact that it is rarely possible to save these animals, even by PASTEUR'S method if the treatment is begun after trephining.

We are continuing these interesting experiments, under altered conditions of infection, but we are anxious to publish these preliminary results which prove, *that it is possible to antagonise rabies by injections of nerve substance derived from the bulbs of sheep, which are healthy and previously untreated.*

By the results obtained by WESSBRMANN and TAKAKI, in tetanus, as well as those obtained by VIDAL, MANICATIDE, etc, in strychnine poisoning, as well as by the results above mentioned, my procedure of treating certain maladies of the nervous system by the injection of the normal substance of the bulb of sheep has acquired a solid experimental basis

Further our experiments have proved, that the substances contained in the bulb and which antagonise the injection of rabies and of tetanus, act upon certain toxins, certain alkaloids, certain poisons differing in character, in such a manner that there can be no doubt that my procedures may have a beneficial action in different nervous diseases of a toxic or infectious nature, as well as in those diseases in which favourable results were obtained by CONSTANTIN PAUL and myself.

PRESENT POSITION OF VACCINATION.

THE following remarks were made at the Annual Meeting of the British Medical Association at Edinburgh by the President, Sir T GRAINGER STEWART, MD., LL D, F R S.E

With scarcely a dissentient voice the medical profession recognises the transcendent value of vaccination. A Royal Commission laboured for many years and at last reported unequivocally in favour of that treatment. But with a determination which would be admirable if it were not so disastrous, a comparatively small group of men set themselves to opposing and maligning the process, belittling its advantages and magnifying and multiplying the slight risks which attend it. To these a considerable section of the English public have given heed rather than to the medical profession—I speak advisedly of English public for, as Mr. BALFOUR has pointed out, the public of Scotland remains loyal to medical opinion. But from the attitude of certain districts in England it comes about that the greatest discovery in practical medicine, although it had its native home in Britain, is less efficiently carried out here

parts of the Continent. In Germany [illegible] practically disappeared; there has been no death from it in the whole of the vast German army since revaccination was made compulsory. In 1853 and 1867 Acts were passed for compulsory vaccination in England. These Acts have been the constant object of attack by the anti-vaccination propaganda. The Vaccination Commission was a result of these attacks. It included active opponents and active supporters of the process, with some members who were understood to take up the inquiry without any definite pre-formed opinion. After seven years' labour they gave in their report. By a majority of 11 to 2 they found that vaccination was a valuable preventive of small-pox; that the process could not be safely abandoned and replaced by other precautions; and that while some alleged dangers are real, they are in truth unimportant in relation to the extent of vaccination work done and are diminishing under the better precautions of the present day. More than a year elapsed before legislation was attempted and the Bill was introduced of which the third reading occupied the House of Commons to-day. That Bill contained good provisions in the way of postponing the date of compulsory vaccination of infants, providing for the treatment being carried out at home, the supplying of calf lymph, and taking advantage of Dr. COPEMAN'S valuable discoveries regarding the special security afforded by glycerinated lymph. But the Bill made one disastrous omission. It proposed nothing in the way of revaccination. Now, experience has proved that the protection afforded by the process requires to be renewed from time to time and has amply shown that here, where it has been tried in many ways, as well as in Germany, where it has been since 1874 compulsory, repetition of the process secures an almost absolute immunity. It is in my opinion, and I am sure in that of almost the whole profession, profoundly to be regretted that the Bill contained no proposal in regard to revaccination. It is grievous to think that we lag behind and are deprived of securities which would be of such value and might so readily be obtained. But if this was a disastrous omission the Bill as it leaves the House of Commons shows another defect, for in the course of last week's debate it was decided that "no parent or other person shall be liable to any penalty under the Vaccination Act 1867, if he satisfies two justices in petty sessions that he conscientiously believes that vaccination would be prejudicial to the health of the child."

"The first remark that I would make is that this clause admits the status of the "conscientious objector" and gives him rights and privileges. An analysis of conscience is always attractive to a Scotsman, but I refrain from attempting to forecast how the process would work out either in regard to that of the "conscientious objector" or those of the justices of the petty sessions. But the right of a person to act according to his conscience is one, which a democracy is bound to protect. Only whenever it is distinctly proved that the result of conscientious objections is really dangerous to the well-being both of the individual concerned and of the community, the community is, in my judgement, entitled to set aside the conscientious objections and to insist upon obedience. The Commissioners, who acted as a jury for the nation in this matter, are satisfied that the abandonment of vaccination would inevitably lead to formidable evils. It seems, therefore, to me that the plea of conscientious objection affords no logical ground for resistance to the law. The second remark which I would make is to inquire what the term "conscientious objector" might be made of cover. This is no easy task, but it is safe to say that it would in-

[illegible] should [illegible] that [illegible] plea [illegible] admitted, we may find conscientious objectors springing up in many other quarters. In questions of education they might make themselves heard. In regard to the payment of taxes conscientious objections, if once admitted, would no doubt spread with great rapidity; and in regard to sanitary laws, the liquor laws, and many other subjects so meticulous people might soon assert themselves in somewhat startling ways. But apart from speculative opinions let us see what different parties are saying about the practical result of the clause. Mr. CHAPLIN, who did his best to stand to his ground, says that the administration of compulsory vaccination in the future will be absolutely impracticable and no Ministry will be able to enforce it. Many share his opinion and regard the outlook as gloomy in the extreme.

"I wish that the Legislature would boldly accept the principle that as it is mainly guided by the opinion of lawyers as to legal questions, by those of soldiers in matters military, by practical seamen and engineers in matters concerning their department, so in medical questions they would look for guidance to the medical profession, and give effect to its matured opinion. Then we should have less difficulty about the question of vaccination, or that the treatment of inebriates, or the prevention of the risks attending certain callings, such as those that expose the workers to lead poisoning or to poisoning by phosphorus, and we would soon find the Statute Book enriched by further beneficient enactments which would save multitudes of lives and immensely diminish sickness and suffering."

SUB-SOIL DRAINAGE AND PUBLIC HEALTH.

AN important addition has been made to our knowledge of the influence exerted upon health by the condition of the soil, in a paper entitled, "The effects of Drying of the Soil upon the Public Health of Buenos Ayres," by DR JAMES T. R. DAVISON which appeared in the *Lancet*, of August 6th.

The diseases investigated by DR DAVISON are tuberculosis, pulmonary, laryngeal, and mesenteric, tetanus; and pneumonia, broncho-pneumonia and pleuro-pneumonia.

With reference to Tuberculosis his results tally with those obtained in the early sixties by DR. BUCHANAN in England and DR. SOWDITCH in America, that drying the soil diminishes the prevalence of tuberculosis. In Buenos Ayres in the years tabulated, from 1872 to 1896 inclusive there was a steady fall in the mortality caused by this disease from 3·3 to 1·6 per 1000.

The fall in the mortality from tetanus was equally steady, but much more extensive, for while in the years 1873 to 1876 we find the death-rate ranging from 2·5 to 4·2 per 1,000 in 1894, '95, and '96 it has been reduced almost to the vanishing point, *viz* 0·2 per 1,000

The conditions are different however when we come to Pneumonia, for in this case the mortality has increased, "the drying of the soil and sub-soil in Buenos Ayres has been the means of increasing the mortality from pneumonia." The increase has been from about 1·6 to 2·6 per 1000, the mortality is marked by great irregularity from year to year.

On this part of the subject Dr. DAVISON says, "regarding pneumonias, the relation between the increase of this group of diseases is too evident to be ascribed to mere coincidence. Several have been the observers who in different countries have noted this relation, but their conclusions have been impugned and sometimes with statistics which have been gathered monthly. The question is *yet sub judice*. The statistics which I adduce in this paper have the value that they cover an epoch of a quarter of a century, and they

[illegible] in which the [illegible] of the [illegible] were carried out separately in the different [illegible], so that the effects of these upon the [illegible] health could easily be observed. Changes in the subsoil take place with great slowness and their effects upon the public health are likewise slow and prolonged. In order to study correctly the relation between subsoil and public health years and not months must cover the periods of observation."

In this paper it is to be regretted that we are not furnished with any precise means of estimating the relative dryness of the soil from year to year, and are told nothing about the depth of the subsoil water either at the beginning or end of the period, or during any of the intervening years; this omission, regretable as it is considering the importance of the subject, was no doubt unavoidable as it is highly probable that no records were kept.

The conclusion that the soil did become drier from year to year is based, not upon any actual estimation of its dampness or otherwise, but upon the fact that from the time works were constructed for carrying off the excessive rainfall, we are told that "the city was provided with sanitary and other works destined to remove its rainfall. These sanitary works were not all constructed at the same time. This construction was carried out in these periods and this has made possible the appreciation of the effects produced separately by each of the several sanitary factors which were brought into activity."

This is a very rough basis for accurate observation, but when the question of subsoil water is concerned anything better is rarely attainable

Measurement of sub-soil water levels hardly comes within the province of the physician, and other people do not as yet appear to have thoroughly learned their value, it is for this reason that the influence of soil dampness upon health is so imperfectly understood,

It should be the duty of every large town and city to keep accurate measurements of the sub-soil water levels, as well as of the various meteorological phenomena, so that they may be at hand when their evidence is required in any investigation into disease

AN ANALYSIS OF PLAGUE CASES IN CALCUTTA.

AN interesting analysis of the cases of so-called Plague which occurred in Calcutta up the 13th of August, has been published by Mr NALIN BIHARI SIRCAR, a Municipal Commissioner of Calcutta.

This report serves to corroborate many of the statements and arguments which have from time to time appeared in our Editorials on the subject.

On the 13th August, the disease had been in Calcutta for 18 weeks, and during this period, cases were returned from 20 out of the 25 Wards into which the city is divided It is thus seen that the disease is spread broad-cast over a considerable area and not limited to any particular locality.

The total number of cases returned in the time specified was 210, of these 174 died, 29 recovered and 7 were still under treatment. Yet out of these 210 cases it is stated that "hardly a single case is clearly traceable to contact with another, a fact which makes one extremely sceptical as to the contagious character of the disease such as it has appeared in Calcutta." It is also noted that there are only 10 premises which show the occurrence of more than one case in each.

Full particulars are given of the cases that occurred in each of these 10 premises, and it is clearly shown that the theory of infection is altogether inadmissible or extremely improbable.

[illegible] and the author deserves the warmest credit for the [illegible] in which he has carried out his appointed task.

We say everything tends more and more to bear out the doubts we expressed from the very beginning as to the accuracy of the official diagnosis. The Plague, if plague it be has, come in such a questionable shape, it has left behind it so many of its usual characteristics and presents so many anomalies, that the tendency to question its identity is growing stronger every day

"The most striking fact," we read in the analysis before us," "in regard to the present outbreak of plague in Calcutta, is that although the disease has been in our midst for 21 weeks, the total number of attacks has been only 210, while in Bombay, Karachi, and Poona, during the same period of 18 weeks, from the detection of the first case, the numbers were 4,123, 3,456 and 2,224, respectively "

The reason usually assigned for this difference, by those who are interested in keeping the city within the meshes of the plague regulations and the other disabilities it at present enjoys, is that the season was unfavourable.

This excuse is based on evidence altogether too unsubstantial to be worthy of a moment's credence. Absolutely no case has been made out in support of the contention that the occurrence and spread of plague are closely connected with, and largely influenced by meteorological conditions.

It is most discreditable that we should be constantly told to wait until next cold weather to see whether the present disease deserts its present sporadic form and becomes epidemic, as if this were the only test which the Government of the country has in its power to employ for the identification of true plague

At the end of his report, Mr NALIN BEHARI SIRCAR gives us a carefully constructed chart, showing by weeks the number of cases, number of deaths, temperature, barometric pressure, humidity and rainfall We cannot however trace any connection between these atmospheric conditions and the number of cases. In fact the two weeks in which the greatest number of cases occured, viz, the last week in April and the first week in July are utterly unlike each other in their various meteorological phenomena.

GONDAL ADMINISTRATION REPORT FOR 1897-98.

IT affords us considerable pleasure to be able to review so highly satisfactory a Report as the one before us The Independent State of Gondal has an area of 1024 square miles, a population of nearly 200,000, and an annual revenue of about Rs 15,00,000, while the tribute paid amounts to Rs. 1,10,721. It is interesting to note that its enlightened Ruler, Sir BHAGVAT SINHJEE, M.D., F.R.C.P., L.L.D. the Thakoor Sahib and his Ranee were both in England (or rather Scotland) during the Diamond Jubilee celebrations, and that besides taking part in the loyal demonstrations His Highness was fortunate enough to be the recipient of the order of G. C. I E at the hands of Her Majesty, concerning which the *Lancet* had some commendatory remarks at the time Three of His Highness' children are enjoying the best education at Home, the Heir-apparent making satisfactory progress with his studies at Eton, while the younger son and a daughter are doing the same at the Scottish capital. The young Princess had to undergo for the second time a surgical operation on her neck, with a hopeful result we are glad to learn.

The past year has been one of continued progress. The building of the Grazia College is all but completed, along with the Principal's bungalow, and a large sum has been

[illegible]

[illegible] been lending money at low interest to [illegible], while a large sum was advanced [illegible] interest whatever to an enterprising resident [illegible] to construct and work a tramway line, starting from the Railway Station. New wells were sunk, and an extensive piece of land reclaimed for a horse-breeding Paddock. Although the State experienced no failure of harvest, Relief works were opened during the time of general scarcity, and the needs of the poor were relieved in a variety of ways. It is worthy of note that the total gross revenue increased by about one lakh, with a corresponding expenditure; the latter being mainly due to relief works and grain compensation. The Police are to be congratulated on the breaking up of a notorious band of outlaws, the ringleaders of which were killed.

Consequent on the recrudescence of the Plague in Bombay, the swiftest and most energetic precautionary measures were adopted at Gondal. Temporary sheds were erected, the Durbar buildings were whitewashed. Passengers arriving by Railway and travellers by ordinary roads were examined, and those who came from infected places were segregated for ten days in Observation Camps. Passengers and their luggage were disinfected and all this with the most satisfactory results. Since the creation of the Gondal Health Department, the sanitation of the town has been receiving the greatest attention.

The number of births registered in the town of Gondal, exclusive of still-born, was 650 against 557 in the preceding year; of these 356 were males and 294 females, against 285 and 272 respectively last year. The birth rate for the year was 42·3 per 1000 population, against 35·3 last year. The total number of deaths during the year was 572 against 462, giving an increase of 110, and a death-rate of 37·25 against 30·1 in the preceding year. The excess of mortality is attributed to the prevalence of malarial fevers. During the year the greatest number of deaths (69) occurred in November and the least (26) in March, while in the previous year the largest number (87) occurred in July and the least (20) in March.

There are two Hospitals and four Dispensaries—one of these a Travelling Dispensary in the State. The total number of patients treated during the year was 47,742 against 49,356 in 1896-97. Of these 1,541 were in-door and 46,201 out-door patients, as contrasted with 1,531 and 47,825 respectively in the year previous. Of the in-door patients 1203 were cured, 160 relieved, 68 discharged otherwise and 53 died, giving a ratio of 3.4 deaths per cent of the total treated or 0.5 per cent more than in 1896-97. The daily average sick was 71.36 (59.90 men, 8·76 women and 2.7 children) as compared with 65.88 in the previous year. Of the out-door patients, the majority attended personally, while some were represented by friends, and the daily strength was 419.74 against 399.62 in the preceding year. The total number of beds available was the same as last year, viz. 101 (79 for males and 22 for females). Of the total in-door and out-door patients treated, there were 22,126 men, 8,924 women and 16,690 children. Distributed according to castes there were 32,490 Hindus, 14,440 Mussalmans, 98 Parsis, 132 Native Christians and 582 other castes.

Indeed not only H. H. The Thakoor Sahib himself, but the worthy Dewan, Mr. Bamanji Merwanji, and the energetic Health Officer, Dr. Hari Bhiccaji, alike deserve to be warmly congratulated on the state of things which has led to so excellent and readable an account of their stewardship.

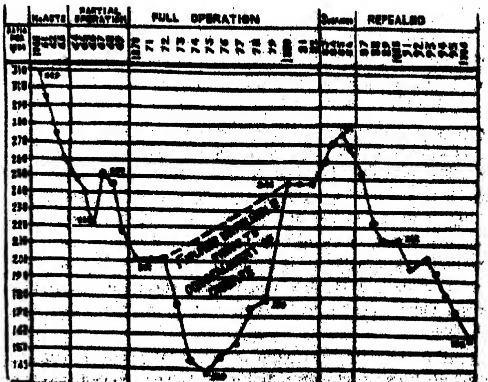
[illegible]

The following statement [illegible] Henry J. Wilson, M.P., for [illegible] afterwards decided to omit it, [illegible] hospital for venereal diseases [illegible] Home Army, from 1860 to the latest available returns. They are extracted from Parliament Returns 325 of 188[illegible]; 509 of 1894; 139 of 18[illegible]; 140 of 1897; and [C—8559] of 1897.

Year.	Admissions per 1000.	Remarks.
1860	309	
1861	295	
1862	276	
1863	261	
1864	248	C. D. Act of 1864, applicable to 11 places, but scarcely applied at all.
1865	241	
1866	221	
1867	250	C. D. Act of 1866, applicable to 12 places, but in very partial operation.
1868	245	
1869	218	
1870	201	
1871	201	
1872	202	
1873†	177	
1874	146	C. D. Acts of 1866-69, applicable to 18 places, and in full operation.
1875	139	
1876	146	
1877	158	Statistics 1873-1879 unreliable. See note below.
1878	175	
1879†	179	
1880	246	
1881	246	
1882	246	
1883	260	
1884	271	
1885	275	C. D. Acts suspended.
1886	267	
1887	253	
1888	224	
1889	212	
1890	212	
1891	197	
1892	201	C. D. Acts abolished.
1893	195	
1894	182	
1895	174	
1896	158	

† Statistics for 1873 to 1879 are officially stated in Parliamentary Paper 509 of 1894 to be unreliable, owing to the issue of an Order by Lord Cardwell, October, 1873, which is said to have resulted in "concealment of disease to avoid loss of pay." It was cancelled 27th November, 1879.

The above figures are illustrated by the following diagram :—



In the face of these figures, how is it possible for anyone to maintain that the C. D. Acts were of any advantage in diminishing disease ?

VENEREAL DISEASE IN THE ARMY IN INDIA.

During the debate on the Indian Budget in Parliament, Mr. James Stuart asked this question and got a reply from the Secretary of State for India, who said the hon. member must recollect that when the present Government came into office they found a most remarkable and almost incredible state of things. A certain body of ladies and gentlemen, with the desire of promoting social purity and public morality, had actually contrived in their zeal that it should be enacted in India that venereal disease should be the only disease which should be exempted from the regulations applicable to all other contagious diseases. The condition of things seemed to him absolutely intolerable. He had always looked on this not as a military but as a national question. They had to promote the health of the people. They had a magnificent army in India—an army capable of great performances. It must not be forgotten that during the past two years our soldiers in India had distinguished themselves on the frontier and elsewhere. These soldiers were all more or less young soldiers and when the *Warren Hastings* transport was in danger, many of these young soldiers stood for hours in a sinking ship and not one of them moved until every woman and child on board was removed. Therefore, he said, they were young men full of chivalrous instincts towards the weaker sex, and he did think it was an absolute disgrace that a condition of things should be allowed to exist in India whereby this superb army should become a sewer for the transmission of the worst of contagious diseases. They thought it was necessary to try to do something to mitigate the ill effects which had existed, and what they proposed was simply to put venereal disease on exactly the same footing as other contagious diseases. He expressly laid down certain conditions which should not be infringed. As a natural consequence of their determination they had to repeal the Act which prevented this disease from being put on the same footing as other contagious diseases. He had taken the utmost care to test the accuracy of the figures relating to India and he could assure the hon. member that there was indisputable evidence to show that the removal of all regulations had largely increased the disease in India and that its intensity had also been greatly augmented. Certain reforms had been suggested and adopted relating to inspection and to measures for preventing the concealment of disease. Again, memoranda had been issued by the Commander-in-Chief, both in India and at home, impressing upon regimental officers the necessity of giving good advice to young soldiers, pointing out the evil consequences which ensued from giving way to vicious habits and directing that in the recommendations for promotion care should be taken to see that those selected were free from vicious habits. It would be seen, therefore, that not only had he kept faith in everything he had undertaken to do, but he had gone even beyond it. He looked upon this question as one of national importance and one which must not be looked at from a purely political point of view. He believed the regulations which had been laid down could be justified from every aspect, that they were in accordance with the Christian precept which exhorted them to heal the sick, and that they were dictated by the common principles of humanity.

THE SECTION OF TROPICAL DISEASES.

AT THE MEETING OF THE BRITISH MEDICAL ASSOCIATION AT EDINBURGH.

The 66th Annual Meeting of the British Medical Association was remarkable for the fact that for the first time it included a Section of Tropical Medicine. Dr. Manson who delivered the inaugural address had no difficulty in showing that there was plenty of reason for justifying the new departure and we trust that the new section will increase in interest from year to year.

Dr. Manson pointed to three distinct functions which the New Section ought to fulfil.

First the affiliation and organisation of the five or six thousand British practitioners who, more or less directly, are interested in tropical practice.

Secondly, the improvement of Education in tropical medicine.

Thirdly, the discussion of the problems of tropical disease.

Dr. Manson then briefly alluded to some of the subjects which particularly required elucidation, and to some of the latest theories that have been propounded.

The following papers were read in the Section on Beri-beri by Dr. Conolly Norman (Superintendent, Richmond County Asylum, Dublin).

On Pellagra, by Dr. Sandwith (Cairo).

The cause of Yellow Fever, by Inspector-General Turnbull, R. N.

Dr. Thornhill (Ceylon) discussed the treatment of cholera, and Dr. Manson showed diagrams and specimens of the Malaria parasite.

Professor W. J. Simpson, Late Calcutta Health Officer read a paper on Plague in India.

A paper by Professor W. M. Haffkine and Surgeon-Major Bannerman I. M. S. on the Testing of the Plague Prophylactic in Plague-Stricken Communities in India was read.

Surgeon-Colonel Dimmock, I.M.S. gave an account of the Measures adopted for Dispelling Plague in Bombay, and some more plague literature was contributed by Surgeon-Colonel Arnott.

The following message was sent by the Section to Surgeon-Major Ross I. M. S.

That the Tropical Disease Section send a message of congratulation to Surgeon-Major Ronald Ross in Calcutta for the excellent work he has done, and is doing, in connection with the extra-corporeal life of the malarial parasite, and thank Dr. Patrick Manson for his careful exposition of Ross' work, and for the part he played in conjunction with Ross in bringing about the important results stated in Dr. Manson's lecture."

Altogether the Section, if it is not responsible for anything very startling, may be said to have opened very satisfactorily.

BACTERIOLOGICAL LABORATORIES IN INDIA.

We take the following from the *Lancet*, as it will interest our readers, being written by our worthy Health Officer, Dr. J. Nield Cook :—

Sirs,—In a recent issue of the *Lancet* I read the following :—

'When the recent outbreak of plague occurred at Calcutta it was a matter of obvious importance that the exact nature of the disease should be determined with the least practicable delay. Happily for the Government of Bengal, the services of M. Haffkine were available and he was able to report, as the result of a bacteriological examination, that the outbreak was due to true bubonic plague. We have heard a great deal about the establishment of bacteriological institutes or laboratories in India ; now here was an occasion in which a bacteriological laboratory in Bengal would have been of the greatest use, and we are glad to notice that the *Englishman* of Calcutta has called attention to the subject.'

"To the credit of the Municipal Commissioners of Calcutta be it said that, on the representations of the late medical officer of health, Dr. Simpson, they provided and equipped a bacteriological laboratory, so that I was able to work out my first case of plague bacteriologically. I obtained the bacillus in pure culture and sent two agar slopes to Professor Haffkine in Bombay for confirmation of my results, as I was advised that Government would not take the responsible

[illegible] the city an infected area without the opinion [illegible] The *post-mortem* examination was absolutely typical of plague I know of no other disease which produces such pathological features—huge hæmorrhages extending from an affected femoral gland up into the abdomen behind the peritoneum and half way down the thigh, and petechial hæmorrhages on the heart and other viscera. I made cultures from the gland, spleen and heart's blood. From the cultures I inoculated two guinea-pigs subcutaneously in the thigh. Both died four days later with buboes and hæmorrhages and I got the same bacillus in culture and under the microscope from them I also obtained it growing in stalactites from ghee (clarified butter) floating on the surface of a flask of bouillon So I had pathological microscopic, and cultural proof, which was further supported by the clinical history I had obtained, before I heard from Professor HAFFKINE. I may add that my investigations were closely followed by Surgeon-Colonel T. H HENDLEY, C.I E., Inspector-General of Civil Hospitals, and Surgeon-Major H. J. DYSON, F R C S., Eng., Sanitary Commissioner, who were satisfied with the accuracy of my results"

VENEREAL DISEASE IN INDIA.

SAYS the *British Medical Journal* —'The General Order as to means for checking venereal disease among British troops in India issued by the Commander-in-Chief in India was laid on the table of the House of Commons, on August 9th. It was founded upon Lord GEORGE HAMILTON'S well-known despatch, and according to the summary of its contents which has been published in the *Times* it does not appear to contain any novel points Officers are advised to exercise their influence in the cause of morality, and it is justly added that soldiers listen with attention to those, and it might have been added only those, whom they respect and who can speak to them from the standpoint of higher education, of blameless life, or of technical knowledge. The famous idea of giving didactic instruction takes form in the suggestion that 'selected combatant and medical officers should be invited to deliver lectures to the men on the moral and physical degradation which is almost certain to result from misconduct It is impossible to feel very sanguine about the success which is likely to attend this propaganda But it may do some good, and it certainly ought to be honestly tried The medical profession undoubtedly has a duty in this matter, and probably there is no officer to whom the men would more readily listen on such a subject, without false shame and bravado, than to the soldier doctor, when once they have got to know him The present rate of invaliding is a scandal to the army, rank and file, and the recommendation that men who are again and again admitted for fresh attacks of local venereal disease should be subjected to all the restrictions of discipline will be approved by everybody, only there must be no confusion on this head A man who is admitted for fresh manifestations of the constitutional disease acquired perhaps long before, should not be penalised, otherwise there will be a temptation to conceal the facts This would be a misfortune, and would have the inevitable result of increasing permanent invaliding, for thorough and long continued treatment is above all things necessary in syphilis It is to be hoped that this aspect of the question will be kept well in view

THE HEALTH OF THE FRENCH ARMY SINCE 1892

Attention to sanitary details has left its mark upon the death-rate of the French Army, the years 1896 and 1897 show the lowest figures yet reached

Small-pox has almost completely disappeared owing to the rigorous application of vaccination and revaccination In 1876 1877 1878, there was an average of 1000 cases with 100 deaths, since 1894 the mortality has fallen below 10 In 1896 there were 56 cases with 2 deaths, and in 1897 58 cases with one death

Typhoid Fever —The mortality shows a rapid decrease 1 82 per mille in 1888 to 0 95 per mille in 1896. In 1897, it was 1 05 per mille, the rise was due to the epidemics at Marseilles, Nice and Castres

Diphtheria.—The mortality has diminished to a large extent The number of cases has fallen from 10 per cent in 1888 to 6·1 per cent. in 1897 The number of deaths in the last three years, 1895, 96, 97, was 24, 19 and 16 respectively.

Tuberculosis—Is the most deadly disease in the Army, it alone causes more than a fifth of all the deaths.

In the following table is shown the annual death-rate from tuberculosis from 1872 to 1897 inclusive.

Years.	Death-rate p. 1,000.	Years.	Death-rate p. 1,000.
1872 ...	8 97	1885 ...	6.13
1873 ...	8 68	1886 ...	6 41
1874 ...	8,49	1887 ...	5.90
1875 ...	10 55	1888 ...	6 09
1876 ...	10.05	1889 ...	5 39
1877 ...	8 14	1890 ...	5.81
1878 ...	7 56	1891 ...	6 77
1879 ...	7 39	1892 ...	5 59
1880 ...	9 46	1893 ...	5 23
1881 ...	7 80	1894 ...	5.29
1882 ...	7 88	1895 ...	6 08
1883 ...	6 92	1896 ...	4.56
1884 ...	6 12	1897 ...	4 56

PLAGUE IN THE DECCAN.

In Hubli there were reported 2,079 cases and 1,742 deaths up to the 25th August.

In the Belgaum collectorate five talukas have been attacked namely, in Belgaum 12 villages, in Chikodi one village, in Sampgaon 4 villages and in Khanapore six villages

In Bangalore there were seven deaths up to 22nd August. Some panic prevailed and the troops had to be called out to disperse the mob

The following are the statistics of the Bombay Presidency for the week ending August 26th. Bombay, 175 cases and 165 deaths, Kurrachee, 20 cases and 10 deaths, and Poona, three cases and one death

In the districts—Broach, 64 cases and 35 deaths, Surat, 80 cases and 57 deaths, Thana, 244 cases and 161 deaths, Ahmednugger, three cases and three deaths, Nasik, 74 cases and 57 deaths, Satara, 114 cases and 81 deaths, Sholapore, 42 cases and 34 deaths, Ratnagiri, one case and no death, Belgaum, 617 cases and 472 deaths, Dharwar, 885 cases and 664 deaths, and Kurrachee, nine cases and eight deaths

In the Political Agencies—Baroda, 136 cases and 95 deaths; Kathiawar, 179 cases and 108 deaths, Kolhapore, 155 cases and 131 deaths, Cutch, 70 cases and 55 deaths, Sachin, two cases and two deaths, Akalkot, 33 cases and 26 deaths, and Bhor, 48 cases and 49 deaths

Total, 3,094 cases and 2 215, deaths, The total mortality up to date exceeds a lakh, the exact number being 100,483

PLAGUE IN BOMBAY.

The increase in the death-rate from Plague in Bombay continues, and is being watched with considerable uneasiness,

The following table shows the course of the disease during the last 17 weeks

Week ending—	Mortality	Week ending—	Mortality
10th May .	138	12th July .	53
17th " .	107	19th " ...	63
24th "	101	26th " ..	69
31st " .	84	2nd Aug ..	62
7th June ...	44	9th " ...	85
14th " ..	26	16th " .	103
21st " ...	15	23rd " ...	765
28th " ...	83	30th " ...	811
5th July ...	53		

This looks as if the disease was waking into activity again, and though it has not as yet attained to a decided epidemic character, it may be on the very eve of doing so

This compares badly with the record of the two previous years when the plague remained quiescent for about six months The quiescent period this year has hardly lasted three months, while the death-rate has been constantly much higher than it was last year.

The reasons for this are not apparent, but it would certainly appear as if climatic conditions had not quite so much influence as it has been the fashion to believe

RAPID CHANGES IN SANITARY APPOINTMENTS IN CALCUTTA.

IN our last number we had to record the transfer of Surgeon-Major BANNERMAN from the post of Special Health Officer of Calcutta and the appointment of Dr PETTIFER in his stead We have now to report the installation of Surgeon Captain C. R. M GREEN, F R C S, L R C P, L S A, and D P.H. into this important position. Dr GREEN qualified in 1885 and obtained the Sanitary Certificate of D P. H., in 1895, that is just two years ago We are not aware that Dr GREEN has done any "special" work in sanitation, but his academic qualifications entitle us to hope that hygienic matters in Calcutta ought to be well served at his hands.

A PLAGUE CONUNDRUM FOR THE MEDICAL GOVERNMENT.

AT a recent meeting of the Calcutta Municipal Council, Mr Chunder Ghose asked the following question :—

"Having regard to the difference of opinion that is being expressed in the papers and by the people as to the existence of plague in epidemic form in Calcutta, will the Chairman and the Health Officer be kind enough to say if rate-payers and other people who have left the town or who have sent their families and children out of town in consequence of several scares, may be advised to come back in our midst?

The Chairman stated that the Health Officer considered this to be a matter for private judgment. In his opinion people might be advised to return and to bring back their families and children.

LONDON EXAMINATION RESULTS FOR THE R.A.M.C. AND I.M.S.

THE following is the list of successful candidates for commissions in the Royal Army Medical Corps at the recent examination in London :—

	Marks		Marks.
F. Warren	2538	G. W. G. Jones ...	2183
J E. Hodgson	2617	J. W H. Houghton	2117
H. P. W Barrow ...	2602	H S Taylor	2101
M. H. G Fell	2511	A. L. Scott	1991
T. C. Lauder	2415	J. W Leake	1969
J. G Gill	2292	R. H. Lloyd.	1935
W. B. Winkfield ...	2266	D. E. Curme	1892
G. H. Goddard... ...	2211	G. M. Goldsmith ...	1848

THE following gentlemen were successful candidates at the competitive examination for the Indian Medical Service held in London on 5th August and following days :—

	Marks		Marks
Leicester, J. C. H.	3,179	Parker, L. E. L	2,336
Innes, H. ...	2,888	Ross, T F. ...	2,316
Willmore W. S ..	2,660	Walker, I N. ...	2,278
Hutchinson, L. T. R.	2,604	Kemp, D G. ...	2.274
Waller, A E. ...	2,553	Roberts, V. H. ...	2,259
Hudson, C. ...	2 523	Robinson, J E.	2,215
Fleming, A. M. ...	2,469	Groube, G. P. T.	2,131
Cruddas, H M. ...	2,460	King, G ...	2,095
Weinman, E F ..	2,452	Atal, P. P. ...	2,091
Ward, F. L. ...	2,411	Pearson, W McM.	2 027

THE JUNIOR STAFF OF THE CALCUTTA COLLEGE HOSPITAL.

The present incumbents of the residential appointments at the Calcutta Medical College Hospital are Surgeon Captain Robert Bird MD, Lond FRCS, Eng DPH Camb a gentleman with a brilliant academic record, the son of an old I.M.S. surgeon, who is Resident Surgeon and Physiologist to the College, Surgeon-Major C H. Evans, MB, BC, Camb MRCS. and LRCP, Lond who is Resident Physician and Pathologist to the College, and Surgeon Captain C R Stevens, MD., Lond. FRCS, Eng. LRCP, Lond. who is Resident Surgeon at the Eden Hospital for women and children. He is the son of an old Civilian and is one of our distinguished Anglo Indians. The Calcutta Medical College and Hospital can therefore boast of a most excellent staff of junior officers

HIGH MORTALITY IN MADRAS

THE mortality returns for Madras, show that the mortality in Madras last week was even greater than was the week before The number of deaths have reached the still more appalling total of 592, as against 575 of the previous week, and the rate rose from 66 to 67-9 per mille per annum in 1890, when the insanitary condition of Madras excited so much agitation. The total number of deaths for the two corresponding weeks were 403 and 438, respectively.

THE SEALDAH HOSPITAL.

The new female ward attached to the Campbell Hospital is now nearly completed and will probably be opened in November. The ward is over 300 feet in length and 50 in breadth, and it is capable of accommodating 150 patients. It supplies a want which has been sorely felt for many years, and will tend to keep the main building less congested than at the present moment, when it is made to accomodate hundreds of patients more than it was originally estimated to hold. It is owing mainly to the exertions of the present Deputy Superintendent, Mr. Cecil Dimant, who, retires shortly, that this hospital has been so well looked after. He will be greatly missed on his retirement.

SHORT ITEMS AND PERSONALITIES.

Mr. A. A. Boon who has taken the Degree of Bachelor of Science of the university of Edinburgh is an Anglo-Indian and a son of the late Military Assistant-Surgeon H Boon, and a brother of the late Surgeon-Captain P. H. W. Boon, I M. D. He received his early training at Bishop Corrie's Grammar School and was a distinguished pupil of that well known institution during the *régime* of the Rev. A. W. Atkinson, M. A.

Miss Margaret Geddes, who has had the distinction of being the first woman upon whom the degree of M D. was conferred by Edinburgh University, followed up the receipt of this honour by marriage. Two or three hours after the brilliant young lady had been "capped" in McEwan Hall by Sir William Muir, she was taking the principal part in the wedding ceremony at Free St Andrew's Church, Edinburgh. The bridegroom was Mr. Douglas Chalmers Watson, M.B.

"Surgeon,—" I.M.S., writes to the *Englishman* as follows :—"If Reuter is right, as I am afraid he is, in stating that men of the I. M. S are to get the new titles, please give us the credit of at least not having asked for them. Our fault has been that we did not protest against them. The people at home seem to think that the I M. S., is the same as the (late) A M. Staff, which it is not "

The services of Surgeon-Captain C R. M. Green, Officiating Civil Surgeon of Howrah, have been placed temporarily at the disposal of the Chairman of the Corporation of Calcutta. Surgeon-Captain E H Brown, Civil Surgeon of Purnea, officiates at Howrah ; Dr J. A Fink, Officiating Civil Medical Officer of Bhagulpore, going to Purnea

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Miss L E. Sykes, M D., who is in charge of the Lady Dufferin Hospital at Lucknow, appears, by the skilful treatment of the cases under her care, to have made herself generally popular among the native community there The *Akbar-i-Aajwaan*, a leading Mahomedan paper published in Urdu, at Lucknow, writes in the highest terms of the skill and attention with which she treats the sick

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Surgeon-General Churchill, Officiating Principal Medical Officer, Bengal Command, proceeds home on three months' leave. Colonel Prince, R A.M.C, officiates. It is believed that Colonel Catherwood, now in England is likely to get the permanent appointment.

The Sanitary Commissioner, Bombay, has applied for the sanction of Government to depute Surgeon-Captain H. C. L. Arnim, Deputy Sanitary Commissioner, Sind District, Mysore, for the purpose of acquainting himself practically with the methods of preparing lanolmated lymph for vaccination

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It has been decided to hold a big Indian Medical Service dinner at the Châlet, Simla, on the 19th instant, on which date the new Warrant should arrive. The Officiating Director General will preside The names of intending participants are to be sent to Surgeon-Major Duncan

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Surgeon Captain E Harold Brown, I.M.S., one of our distinguished Anglo Indians—M.D, L.R.C.P, and S. Edin. L M S, (Bombay) has been appointed to temporarily fill the coveted civil surgeoncy of Howrah.

Surgeon-General Cleghorn, Director-General, Indian Medical Service, will not return to India. Surgeon-General Harvey, who is acting, will probably be confirmed as his successor.

The following officers came to Calcutta for the purpose of undergoing a course of operative surgery at the Medical College :—Captain S. McDonald, R. A. M. C., Lucknow, and Captain W. J. Trotter, R A.M.C., Sitapur.

The Secretary of State has confirmed the decision of the Government of India that officers of the Indian Medical Service holding appointments outside the cadre of that Service, shall be seconded when such employment lasts for more than a year.

The Royal Warrant granting Military rank to the members of the Indian Medical Service, together with a despatch explaining the reason for not forming the service into a corps should reach India by the mail due in Bombay on the 17th instant.

Surgeon-Captain Fullerton, I. M. S., Bengal, acts temporarily as Personal Assistant to the Principal Medical Officer, Bengal Command, *vice* Surgeon-Captain French, who vacates on promotion to Surgeon-Major.

A district Court Martial held at Mian Meer finds First Class Assistant Surgeon Clement Bower Boodrie, Indian Subordinate Medical Department, guilty of drunkenness when on duty. The accused is reduced to the second class.

Surgeon-Captain J. C. S. Vaughan, Deputy Sanitary Commissioner, Western Bengal Circle, has been appointed to act as Civil Surgeon of Burdwan, during the absence, on leave of Brigade-Surgeon-Lieutenant-Colonel W. H. Gregg.

The question of reopening the Cantonment Lock Hospitals is, it is believed, at present under the consideration of the Principal Medical Officer, Her Majesty's Forces in India.

Assistant Surgeon I. T. Mittra has been transferred from Mayo Hospital, Jaypore, to the permanent Civil Medical charge of Beawar Dispensary, Rajputana.

Surgeon Colonel Kalipada Gupta, Bengal, has been offered an appointment as Chief Medical Officer by the Nepal Durbar.

Dr. Hayes having resigned the appointment of Planters' Doctor to the Sarun District, the Medical Committee have have resolved to advertise for a successer.

The 4th Session of the Congress for the study of Tuberculosis in men and animals met at Paris on the 27th July 1898, under the Presidency of Professor NOCARD of Alfort.

Dr. LAWRIE has reported to the Nizam's Government that the outbreak of plague in Sholapore is serious.

Dr. Bhagat Ram Sawhney, M. D. &c., &c., has been appointed Chief Medical Officer, Jammu.

Furlough on medical certificate for five months is granted to Surgeon-Major G. H. Fink, I. M. S.

There are three Anglo-Indians among the London successes for the I. M. S.

Members of the Indian Medical Association who have not yet received their membership certificates are requested to apply for them at once to the Secretary.

Members of the Indian Medical Association who have not received a copy of the Third Annual Report of the Association, or previous Reports, are requested to apply for them at once to the Secretary.

Members of the Indian Medical Association whose subscriptions are in arrears are requested to forward their dues to the Treasurer without delay.

On and after the 1st October, all communications for the Indian Medical Record whether for the Editor, Proprietor or Manager, should be addressed to 38, Park Street, Calcutta.

THE RESPONSIBILITY OF MEDICAL EXPERTS.
THE CASE OF DR. MELOCHE BY DR. PAUL REILLE.*

THE case of Dr. MELOCHE is of such an interesting, not to say sensational character, and has attracted such universal attention, that we think the following admirable and full account of it by Dr. PAUL REILLE cannot but be of interest to most of our readers. It comes at an opportune time when public attention has been more than usually attracted to the medico-legal aspect of medicine, and it bears upon some of the most important and difficult questions which may at any moment confront the practitioner, regarding the duties and responsibilities of Medical Service in the cause of Justice.

Dr. REILLE'S article runs as follows: In the year 1875, Professor LORAIN wrote thus to a Medical Expert who had sought his advice, "I think that Justice, in its no doubt legitimate zeal attaches too much importance to our reports, and lays upon us too large a share of the responsibility. We should be careful not to merit the charge of excessive zeal to which we may sometimes exposed.

As for the value which the general public and those who instruct it through the Press, set upon our opinions, we would be wise not to attach too much importance if we value our own comfort."

The following are the circumstances which led to the above expression of opinion.

A certain Dr. D—was ordered by a Justice of the Peace to make an examination of a woman who was accused of infanticide. He summed up his conclusions thus.

1. The uterus of the accused B—appears to have undergone a considerable enlargement through the development in its cavity of some product which may have been a pathological tumor, but which was more probably a fœtus.

2. This "product" must have been expelled, and if a fœtus, probably before full term.

3. It is impossible to fix the exact date of this expulsion, three weeks at least must have elapsed and probably much longer.

Two days afterwards the body of the infant was found, and Dr. A—who on the occasion examined the woman and made a *post-mortem* examination of the fœtus, stated in his report that she must have been delivered within one month.

The President of the Court of Assize thereupon reflected severely on Dr. D—finding it strange that he *could only fix a probable date*, while his colleague *fixed the exact date*.

The result of this uncalled for censure was that the Press indulged in an attack on Dr. D—into the details of which we need not enter.

The President of the Court exceeded his rights; in questioning the report of our confrère he appeared to cast doubts on his ability and professional honesty; he doubtless thought his carefully worded opinion too favourable to the accused, and in finding fault with it he went very near accusing him of neglecting his duty, and avoiding his due share of responsibility.

This case stands alone; but for some years past medical jurists, like other medical men have found themselves regarded with suspicion by the public and they have seen their reports however impartial, attacked and disputed.

This is a matter of small moment and as LORAIN advises, too much importance should not be attached to it, it is however more serious to find publicity given to dissensions between medical men, which have lately arisen over matters of expert opinion!

As DECHAMBRE says, the Medical Confraternity should be united by a profound sense of the nobleness of the art which they exercise in common, and by respect for their mutual dignity.

Up to 1897 the question of the responsibility of the expert had never been raised except in the Press, and matters of this description had never come before the judicial bench. It was under the following circumstances that such tribunals were called upon to express an opinion upon these questions, which possess the highest interest for the whole medical profession.

* Translated from the "Annales D' Hygiene Publique et de Medicine Legale" July, 1898.

On the 18th March 1896, Dr. MELOCHE, formerly "interne" of the Nantes Hospital, and physician at Saint Nazaire was commissioned by the *Juge d' instruction* to examine a widow named BILLY, who was believed to have aborted.

The doctor examined the accused, but as he had not the instruments necessary for a complete examination, especially neither speculum nor stethoscope, he beforehand informed the magistrate that it would be necessary for him to repeat the examination the following morning.

As Dr. MELOCHE was about to examine the woman, she informed him that, on the 15th March, a quantity of blood and clots had come away, but that she had seen nothing that resembled a child. She further pretended that the catemenia had always been regular, and that she had not been pregnant.

Dr. MELOCHE was about to leave the Magistrate's room when the latter summoned him to state if the result of his observations afforded a strong presumption of recent accouchment. Placed at a disadvantage by the question, he replied, that he thought that the woman he had examined had been recently delivered.

This reply was immediately entered in the proceedings and an order of imprisonment was executed against the widow BILLY.

Two days later the expert made a fresh examination. In the interval the woman had had some hæmorrhage and he was able to state in his report that the neck of the uterus and the walls of the vagina were slightly blood stained.

Auscultation and palpation of the abdomen revealed neither the sounds of the heart, the movements of the fœtus, nor ballottement.

As the result of these two examinations Dr. MELOCHE drew up the following report which was consigned to the Record Office of the Tribunal of Saint-Nasaire, the 1st April, 1896.

I the undersigned doctor in medicine of the Faculté of Paris, commissioned by M. J. JULES BATILLAT, Magistrate of the Court of first instance of Saint-Nasaire, in accordance with an order dated 18th March 1896, proceeded to Campbon the same day in connection with an infanticide, which had been committed there by a widow named BILLY.

This woman was suspected by her neighbours of having aborted secretly on the 15th March. All the witnesses, examined on the 18th March, stated that this woman had been perceptibly large with child, but that since the 15th March her abdomen had decreased in size in a marked manner.

The woman did not deny that the size of the abdomen had diminished, but she attributed this to a large quantity of blood with clots which she had lost on the 15th March, the amount of blood was sufficient to saturate two chemises and the petticoats in which she had slept. she stated that there was nothing that resembled a child, or at least that she saw nothing, I then proceeded to examine the woman and I found as follows :

The widow BILLY has had four children, the youngest is four years old and has been weaned 22 months.

She declared that the catamenia had been regular, but less marked for the last few months. Last Sunday she had severe hæmorrhage and passed clots. The breasts are full and firm, the nipples are brown and the areolar glands prominent, on pressure the breasts yield a few drops of white milk similar to what is secreted a few days after delivery. The linea alba is of a brownish colour from the pubis to the umbilicus. The abdomen is slightly globular, but at the sides the walls are flabby and relaxed.

Below the umbilicus on each side of the abdomen there are numerous characteristic lines of a pale violet colour, they are of recent date and indicate that the abdomen has recently been considerably distended, and that this distension has recently disappeared

By careful palpation of the abdomen, which is flabby, but voluminous, the body of the uterus can only be distinguished with difficulty ; by vaginal touch combined with abdominal palpation the fundus is felt to be a little below the umbilicus.

By vaginal examination the neck of the uterus is found large and fairly soft, the external os large and the internal fairly well closed. There are multiple lacerations to the right of the cervix and a large tear to the left. These lacerations are old.

The anterior lip presents some granulations.

A little blood is still coming from the uterus.

At my second examination on Friday the 20th March, the symptoms were almost the same; milk in the breasts, numerous characteristic violet coloured lines on lower part of abdomen, fundus below the umbilicus, and finally the woman, from Wednesday to Friday had continued to lose blood Moreover the cervix and the vagina are blood stained.

To sum up, in this case five things were apparent ; milk in the breasts ; violet colored lines of recent date on the lower part of the abdomen which pointed to a decrease in the size of the abdomen ; a diminution which besides had been observed by everyone and which the woman did not deny. The flabby condition of the abdominal walls and the abundant hæmorrhage with clots on the 15th March, which was admitted by the accused : finally the presence of the fundus below the umbilicus and the difficulty of distinguishing the uterus in the abdominal cavity.

These symptoms which in a primipara would have had a different value, were yet sufficient to attract particular attention to this woman. They did not justify a formal declaration that she had been recently delivered, but they formed a strong presumption in favor of this view and showed the necessity of following up the course of these symptoms, to see if the milk disappeared, if the uterus underwent normal contraction. The abundant hæmorrhage and the violet colored lines on the abdomen were specially important.

On the other hand neither auscultation nor palpation of the abdomen, nor vaginal examination, had shown any signs of the heart sounds or of active movements on the part of the fœtus, nor ballottement

Besides if the infant had moved, the widow, who had previously borne four children, would have made known the fact which would immediately have acquitted her of having made away with it.

I intended to visit the widow again to see if any change had taken place in the symptoms mentioned above, when I was informed that she had given birth to a child on the 23rd March 1896, at 6 A.M., the infant was in about the fifth month of gestation and lived for half an hour.

Was this a case of twin pregnancy, with delivery of the first child eight days previously, which would explain the hæmorrhage of the 15th March, the diminution of the abdomen and the characteristic lines ? I cannot say.

Conclusions: (1) The widow BILLY at my two examinations had the walls of the abdomen flabby and relaxed, milk in the breasts, numerous recent violet colored lines on the lower part of the abdomen. She had had severe hæmorrhage with clots on Sunday the 15th March. Finally the fundus which was felt with difficulty was below the umbilicus.

(2). All these symptoms combined formed a strong presumption in favour of recent accouchment, without however, warranting a formal declaration to that effect.

(3). They made several other examinations of the woman necessary to ascertain if she had actually been delivered.

(4). Neither heart sounds, nor movements of the fœtus nor ballottement could be discovered.

(5). The absence of recent laceration of the cervix or of the fourchette were no proof that delivery had not taken place, for a woman who already had four children, and whose cervix was freely open and lacerated in several places, whose vagina also was dilated and capable of extensive dilatation, could readily be delivered without any fresh lacerations taking place.

(6). The sexual parts presented no trace of violence

Saint Nazaire, the 1st April 1896.

Sd. Dr. MELOCHE.

On the 23rd of March, the accused while in prison was delivered of a five months fœtus or what appeared to be a five months fœtus, for it was not measured and there was no autopsy ; it lived for some hours.

The widow BILLY was at once liberated and she then proceeded against Dr. MELOCHE, the result of whose first examination had caused her to be imprisoned.

Such are the facts which led to a most important result. The magistrate contrary to all precedent summoned Dr. MELOCHE to tell him the result of his first examination of the accused.

The Magistrate and the doctor were equally wrong. The magistrate should never have entered the simple opinion of the doctor in an official report while the doctor should not have expressed the opinion, until he was convinced that there were sufficient grounds for it, especially when he considered a second examination necessary. Further the Medical

Apart respecting to the terms of his commission is not required to make an oral deposition before the magistrate, it is his duty to submit a report prepared after careful reflection in the quiet of his own study, and this alone can be considered official.

Professor BROUARDEL discussing such premature questions on the part of the magistrate says:—

"You will often be questioned by a magistrate and asked to give your opinion before your investigation is finished, say nothing definite. An answer given under such conditions will influence the future proceedings and the interpretation put upon your final report, it handicaps justice and does not reflect well upon the expert.

Considered in this way it is so difficult to fix responsibility upon the expert that the counsel for the plaintiff M. BRUNSCHWIG addressed a letter to Professor BROUARDEL from which he quotes the following extract in his work entitled 'Responsabilité medicale."

May I ask and can you tell me if any responsibility rests upon the doctor? Or if on the contrary he enjoys the same immunity as a magistrate who orders a person to be arrested on insufficient grounds? In other words must the medical jurist be looked upon as forming as it were a part of the tribunal while he is performing the duties that have been entrusted to him?

On the other hand is he responsible for his mistakes, if they are due to gross error or to negligence, to an amount of carelessness amounting to unpardonable ignorance?

The answer to all these questions is easy. According to article 23 of the Act of 30th November, 1892, on the practice of medicine, "Every doctor of medicine is bound to comply with the orders of a magistrate on pain of fine of 25 to 100 francs." This point had been already decided, in this sense, by the Court of Appeal two years before the law was promulgated.

No doctor is permitted on any grounds whatever to excuse himself or say that he is incompetent. Such is the law.

In an article which appeared recently in the *Gazette des Hôpitaux* this question was discussed and the writer said "It is always easy for a doctor to decline expert work on account of relative incompetence, not being accustomed to make autopsies, or the want of special study"

This is true enough in principle, but in practice it becomes a delicate matter. There is a difficulty in advising a medical man who is established in practice with a large number of patients, thus to confess to incompetence. If the declaration was a private one, he could make it; in a large town he might seek to excuse himself, but if he practices in a small provincial town reports and exaggerations will get about.

The public will not trouble to notice that the doctor declares himself incompetent only as far as medical jurisprudence is concerned, or in the conducting of autopsies, or in some other branch of medico-legal work, one thing only will be grasped and passed from mouth to mouth, viz, that Dr X. when called upon by the magistrate declined because he considered himself incapable of doing what was required of him.

Unfortunately the public and even the magistrates imagine very wrongly, that the title of doctor given to the student at the conclusion of his studies, implies a certificate of general competence upon every point, near or remote, connected with medicine Nothing could be more erroneous In spite of the large number of examinations he has to pass, a doctor, and this applies to the great majority, will very probably during the whole of his student's career, never see a case of poisoning by carbonic acid gas or by arsenic; and more likely still will never have performed an autopsy upon a person who has been drowned or hung, nevertheless he is able to pass his final examination brilliantly and to describe the organic lesions which occur in such cases, his knowledge however is purely theoretical and in medical jurisprudence there is a wide gap between theoretical and practical knowledge.

No matter what position he holds, a medical man who confesses to incompetence upon any point will be suspected by his patients of being equally incompetent upon others to which he does not confess; they will conclude that they have placed the care of their health in bad hands, and will speedily leave a doctor who has declared himself incapable of deciding whether a person who drowned himself has been drowned accidentally or has been assassinated. Doctors themselves are perfectly well aware that it is possible to be ignorant upon these special points and to be a very distinguished clinician, unfortunately the public does not see things in the same light

The same journal adds, "If the magistrate insists the doctors must comply," but a medico-legal report made under such conditions stating the limited competence of the expert, and expressing opinions which are vague and without precision, will place so many arguments in the hands of the defence, and will be of so little use in the interests of justice, that it will not be employed at all."

This point also we are unable to accept. The medical jurist is bound to state in his report, the lesions that he has found and the conclusions he has formed from them. He is obliged to answer precise questions "Has the patient been recently delivered? Yes, or no?"

If the facts observed are of such a nature as not to justify a precise affirmative, if he is in doubt he will reply in a guarded manner, he will say, like Dr. MELOCHE who affirmed nothing, that there are certain presumptions, but he ought never knowingly to make a report in which the conclusions are vague and wanting in precision, for if he does he will take an erroneous view of the duty that has been confided to him, he will favour the defence to the prejudice of the prosecution, while he ought to be perfectly impartial.

Besides if the case comes before the Court, the President when he receives the depositions of the expert, *as a witness*, (*comme témoin*) will put questions to him and will not fail to ask him about the points which are vague, and will force him to complete the details of his report in public

Such an examination is very disagreeable to the expert and especially to those who not being accustomed to assist at judicial proceedings are somewhat nervous, knowing that their answers will be faithfully taken down and subsequently commented upon In a report, the Medical Jurist only writes what has been carefully considered; but under cross-examination if he is not in possession of all his senses he may be drawn a little too far, and may in his explanations reveal his private opinion as to the guilt or innocence of the accused.

In fine, once a doctor is bound to co-operate with the law, no matter what the case is and in spite of his pleading incompetence, he can no longer be held responsible on this subject. Professor BROUARDEL says, (*La Responsabilité medicale*).

"The Medical Jurist is only called upon when the Magistrate is unable to decide some technical point He is selected by the magistrate and it is to him that he makes his report. It is the magistrate who gauges the value of his conclusions, who accepts or questions them. He has chosen the expert but he is not forced to accept his opinions, if he does accept them he is responsible for the consequences, if any one is responsible, it is, therefore, the magistrate himself. It must not be forgotten that the doctor has no option, he cannot refuse the summons of the law, he must comply under article 23 of the Act of 1892. He cannot excuse himself; he cannot urge the plea of incompetence, if then he commits an error who is responsible? Surely it is the person who has selected him, why was he selected unless because he was well qualified? I admit, be it understood, that if the expert culpably by fraud or malice has tried to deceive the court he must be considered guilty in the same way as one who gives a false certificate, or who gives false witness but this does not apply in this case, here *the expert does not deceive, he is deceived.*

This case came before the civil tribunal of Saint NAZAIRE which at the sitting held on the 26th February, 1897, upon the arguments of M. M. BRUNSCHWIG and GAUTTE both of the Nantes bar, pronounced the following judgement.

Whereas the action concerning responsibility instituted by the widow BILLY against Dr. X.—rests upon the provisions of articles 1382 and 1383 of the Civil Code.

The elements of the offence, or supposed offence as provided for in these articles are:—

1. An error, negligence or imprudence on the part of the defendant.

(2) A consequence of such error, negligence or imprudence which entitles the plaintiff to damages.

And since no article or provision of the Act of 30th November 1892 modifies, as far as doctors are concerned, the principles of responsibility laid down in these articles.

There are therefore reasonable grounds to inquire if there

was any—(1) Error, imprudence, or negligence on the part of the defendant.

(2) Injury caused by the defendant.

(3) Connection between the error and the injury.

Whereas the injury for which reparation is demanded by the widow BILLY might result—

(1) From her arrest and detention.

(2) From the violent means employed by the medical expert in his efforts to discover the truth

The second heading may however be struck out since the employment of the speculum is neither admitted nor proved, nor is it stated that it was the employment of this instrument which brought on labour

But with reference to this second heading, since the arrest is legally proved and there can be no question that the consequences entitle the widow to damages

Still concerning the third element, the connection between the error and the injury, it is established by the magesterial proceedings that the medical expert was summoned to decided upon a matter of fact, whether his investigations showed a strong presumption of recent accouchement, and that upon his answer in the affirmative an order for imprisonment was executed against the widow.

That, therefore, the sole legal point at issue is the error, or rather the negligence or imprudence of the expert, for he was legally ordered to examine the woman to find out if she had been recently delivered

Considering that the rules of science, even if they are not infallible, are still sufficiently exact to enable the physician in the large majority of cases to arrive at the truth without difficulty, it follows that it is his duty to adhere strictly to them for it is the unanimous verdict of authors who have treated of this branch of medicine that no single sign of accouchement taken by itself nor even a group of isolated symptoms is sufficient to establish a certainty

When the problem is so difficult that he is unable to solve it, if he does not follow all the rules laid down for his guidance he is guilty of neglecting his duty, more especially in a case of this importance.

Considering further, cases of infanticide are those in which medical experts are most frequently called upon to express an opinion, that all the means of arriving at the proof of delivery are mentioned, and are laid down in special works which are unanimous as to the means, the authors only differing as to the value to be attached to each sign or symptom, consequently ignorance on the part of an expert is inexcusable

Granted that he did not neglect to inquire into the external circumstances which could guide him in his researches

But these circumstances should not have prevented him from employing all the resources of science the application of which was the very object of his mission

That, he should have attached the less value to the declarations of the accused, since he knew that she was interested in disguising the truth and deceiving the law even though her methods of defence, often badly chosen, should run counter to her interests

Considering that, the cases in which the doctor after following carefully all the instructions laid down by the best authorities still makes a mistake, are exceptional, the proportion of such cases being very small in comparison to the number of accouchements, the mistake that was made necessarily presupposes an error, negligence, or imprudence on the part of the expert,

That, therefore, the expert incurs the necessity of proving that he has not neglected any of the methods which he should have employed

Whereas the date on which Dr MELOCHE'S report was handed in, was subsequent to the accouchment of the widow BILLY, the court should hesitate to accept the statements contained therein

If however, taking into consideration the fact that the expert was on his oath, and his universally admitted high reputation, the statement contained in his report be accepted as exact and straightforward, it is still necessary to remark that this document consists of three parts.

That in the first the expert relates the symptoms, observed by him on the 18th March

In the second speaking of the visit of the 20th March, he says, he observed the same symptoms as in his first examination, and adds that neither auscultation, abdominal palpation, nor vaginal examination, gave any signs of the heart sounds, of active movements on the part of the foetus nor of ballottement.

In the third he gives the conclusions founded upon the results of the two examinations.

It was the medical examination of the 18th March which led the expert to affirm to the magistrate, the probability of accouchement which statement caused the arrest, and appears from the order followed in the report, that it was only at the second visit that he sought for the signs of pregnancy noted above, and remarked their absence.

This suspicion becomes almost a certainty if we consider the report of the official inquiry, for there the magistrate states that the doctor told him that he had not the necessary instruments with him, and that it would be necessary to make a more complete examination of the accused at Saint Nazaire.

Considering that, if it was necessary to make use of a stethescope to hear the heart sounds, it was, on the other hand, unnecessary to use any instrument to prove the existence of ballottement.

That on this count therefore, there was negligence on the part of the expert, who in the first part of his report mentions the vaginal examination soly with reference to the conditions of the neck of the uterus.

Considering that the want of instruments, about which nothing is said in the report, and for which no reason is given in the official report, is another proof of negligence on the part of the expert.

Considering that it is granted, that he was satisfied to affirm the probability of accouchement upon the following symptoms Milk in the breasts, recent violet coloured lines on the lower part of the abdomen, the flabby and relaxed state of the abdominal walls and the position of the fundus below the umbilicus

To which he added the profuse hæmorrhage with clots noticed by the accused on the 15th March, whereas these symptoms are not the most reliable in a woman who has previously borne children

It was a grave imprudence on the part of an expert to affirm the probability of accouchement upon indications which he himself apparently did not consider conclusive, for he mentions in addition in his report that there were no recent lacerations of the cervix and lays special stress upon a profuse hæmorrhage of which he had no evidence except the statement of the accused

Far from opposing the presumption of negligence, implied by the rarity of the cases in which experts have been deceived in this manner it is submitted that the documents before the Court confirm it

And that accordingly the defendant is responsible for the arrest

Further with regard to the examinations made on the 18th and 20th March, the expert neglected to submit the blood to a chemical analysis, while its composition, is according to all authors who have devoted themselves to legal medicine, one of the most certain indications of accouchement

Whereas the expert not having been present at the birth of the infant of the widow BILLY, the Court cannot accept as proved his explanation of the absence of ballottement

Finally it is not established that the expert informed the magistrate of the result of his later investigations, or gave any fresh advice, previous to the date of his report.

That consequently he remains responsible, not only for the arrest, but for the detention up to the time of accouchement.

Whereas, the denial of being pregnant cannot be considered a misdemeanour on the part of the widow BILLY, who was obliged to defend herself, yet this false declaration while not relieving the expert from the complete fulfilment of his duty must be held to somewhat diminish his responsibility.

As still further extenuating causes must be considered, the doubtful morality of the plantiff the suspicions which rested upon her, and the number of unfavorable reports against herself and her family.

Whereas, in as far as the question of prejudice arises, it is necessary to take into account, the arrest of the widow, the period of her detention, and of the fact that she was delivered in prison.

Yet it must be remembered, on the other hand, that she did not suffer from any of these things after her release.

That in conclusion the Court has in its possession all the facts necessary to assess the amount of damages

For these reasons, Dr. MELOCHE was condemned to pay to the plaintiff the sum of 1,000 francs, and to pay costs.

(*To be Continued.*)

VITAL STATISTICS OF CALCUTTA.

Statement of Deaths from Principal Diseases in Calcutta during the week ending 13th August to the 10th September, 1898

Week ending.	Cholera.	Plague.				Small-pox.	Fevers.	Bowel com-plaints.	All other diseases.	Total.	Total population, according to the census of 1891.	Ratio per 1,000 of population per annum.
		Sporadic.		Epidemic.								
	Sporadic.	Seizures.	Deaths.	Seizure.	Deaths.							
13th Augt. ...	6	11	12	...	...	...	83	51	199	351	6,81,560	26·6
20th Augt. ...	1	8	2	...	...	...	88	53	176	321	...	24·4
27th Augt. ...	4	4	4	...	...	1	93	57	195	354	...	27·1
3rd Sept. ...	4	4	3	...	...	...	87	68	209	371	...	28·4
10th Sept. ...	5	7	7	...	...	1	102	54	188	357	...	27·3

Current Medical Literature.

MEDICINE.

Recent Views on Dyspepsia.

ITS nervous form excepted, VERHAEGEN maintains that in place of being a merely functional disease, dyspepsia is always the result of subacute or *chronic* gastritis, of which he recognises four forms :—(1) chronic *simple gastritis* or gastric catarrh, if prolonged, terminates in atrophy of the glands and sclerosed connective tissue, and the muscular coat may become involved and disorganised, while the gastric contents show deficient acidity, delayed digestion and abnormal fermentations. Bitters, such as calumba, condurango, quinine or nux vomica, may be given 15 to 30 minutes before meals till the appetite returns (not a day longer); but drugs have singularly lost their importance and the treatment chiefly consists in regulating the diet according to the idiosyncrasies of each patient and giving *small* meals at long intervals between each. Milk is the most suitable food and water the best drink. Broth, meat solutions and extracts, peptones, eggs, biscuit, calf's brain and pancreas, poultry, finely hashed meat, beefsteak and vegetables (such as carrots, cauliflowers, spinach, &c.,) which contain but few fibres of cellulose are allowable and so are a little coffee or effervescent mineral waters in moderation, but pork and stimulants or stimulating beverages are interdicted.

(2) In *Gastritis with hyperchlorhydria* the principal symptom is pain (sometimes severe) radiating from the epigastrium through the last intercostal spaces and the stomach is sensitive to pressure in the pyloric region. Beginning 2, 3, or 4, hours after a meal the pain lasts from a few minutes to several hours, but may be temporarily relieved by the ingestion of food and still more by bicarbonate of soda. Rest in bed, with warm applications, is advised. Diet should be milk and eggs till amelioration when a little hashed meat or bread may be given. Small doses of soda, every 30 to 60 minutes until the end of digestion are useful.

(3) IN *Gastritis with hypersecretion* which is a later stage of the preceding or may be looked on as pyloric stenosis, secretion has become constantly continuous in place of intermittent, and during fasting—the stomach which becomes dilated—often enormously, always contains a notable quantity of acid secretion. Lavage with solution of bicarbonate of soda and avoidance of starchy foods, afford the best lines of treatment, but in the advanced forms gastro-enterostomy is indicated.

(4) *Nervous dyspepsia* has manifold manifestations requiring constitutional treatment chiefly directed to the nervous system.—*Lancet.*

Hepatic Cirrhosis.

WITH regard to the relation of hypertrophic and atrophic cirrhosis, Dr. BARR does not think hyperplasia of round cells and connective tissue sufficient to account for the increased size in the former which he attributes to engorgement with blood following tricuspid regurgitation due to cardiac asthenia, provoked by over indulgence in strong spirituous liquors, and the atrophic condition, he thinks, is caused by the absence of cardiac asthenia with tricuspid incompetence while diminished functional activity of the liver leads to lessened formation of bile which never deposits gall stones. The earliest symptoms are those of of alcoholism while gastric catarrh may precede, accompany or succeed the liver disturbance. BARR lays great stress on dehydration and wasting as a consequence of mechanical obstruction in the liver, wherefore he interdicts alcohol and restricts the fluids ingested so as to lessen the work of the heart. He applies a large sinapism over the epigastrium and liver and treating the gastritis also relieves hepatic and portal engorgements with calomel, but protests against using hydragogue cathartics. As diuretics he employs digitalis with a little nitroglycerine to diminish peripheral resistance. In some cases venesection and the establishment of a collateral circulation may be of use: but paracentesis, if necessary, should be done before the abnormal walls are relaxed : as tapping after the relaxation is usually followed by distressing meteorism.—(*L'pool med chir : journ.*)

Nervous Complications of Influenza.

TWO cases are reported by Dr. FEINBERG (*a*) 8 days after the onset of influenza a man, aged 38, was seized suddenly with severe pain in nape of neck, upper thorax and right arm which last was paralysed. The pain lasted 4 months ; but 8 months later there was paralysis of the muscles supplied by the musculo-spiral and median nerves of the right arm which with the pectoral, trapezius, and sterno-mastoid muscles were greatly wasted and the right eye was shrunken while its palpebral fissure and pupil were smaller than those of the left eye. Electrical reactions were much diminished, but there was no reaction of degeneration. 5 days after onset of his influenza, the other case (*b*) set. 40, became delirious, lost consciousness and had frequent tonic spasms of the limbs with trismus and rigidity of the neck. Conciousness returned after three days, and a few weeks later the man was quite well except for slight weakness of the right upper limb.—(*Neurol. Centralbe.*)

Treatment of Cholera Infantum by Subcutaneous Injections of Serum.

OF 15 cases of grave cholera infantum in nurslings from 15 to 275 days' old whom REINACH treated with subcutaneous injections of from 10 to 20 c.c., of horse serum, 4 died (2 of concomitant broncho-pneumonia and 2 of a follicle enteritis), and in the remainder collapse and cyanosis disappeared while the extremities became warm, the pulse stronger and the temperature raised in 6 to 7 hours after the first injection, and this improvement usually lasted for 24 hours when there was a relapse which permanently yielded to the second injection of serum, and a third dose was seldom necessary.—*Amer Jour of Med. Science.*

SURGERY.

Inherited Syphilis.

JONATHAN HUTCHINSON, in an article on inherited syphilis, lays stress upon the following points, based upon his own most extensive experience:—That the subjects of taint often group up into healthy men and women. That complete exemption from other indications of taint does not exempt from the risk of an attack of keratitis. That it is not unusual for one child in a family to suffer very definitely, whilst all the others apparently escape. That it is very exceptional for any considerable series of children to suffer in succession from inherited taint. That the mother of one or more syphilitic children may herself remain throughout quite free from symptoms, and apparently in good health. That a condition of general arrest of growth may be one of the consequences of inherited taint. That it is possible for children born within dangerously short periods of the primary disease, in one or both parents, to entirely escape the inheritance. That although, as a rule, after keratitis, choroiditis, etc., the recovery is permanent, there are exceptional cases in which certain progressive changes continue. That it is by no means improbable that some who really inherit taint never, either in infancy or subsequently, show any symptoms. That the children of those who have suffered from inherited syphilis are usually quite healthy. That syphilitic infants may be suckled by their mothers as a rule, without risk to the latter (Mr. HUTCHINSON'S whole experience affords no trustworthy exception to either of these last two propositions).—*Edin. Med. Jour.*

Cocaine in Surgery.

1. The use of cocaine should not be abandoned because its irrational employment has produced deleterious results. 2. Always make a thorough physical examination of the patient before injecting the drug. 3. It should not be used in cases showing organic diseases of the brain, heart, lungs or kidneys, or in persons of neurotic diathesis. 4. Children bear it fully as well as adults. 5. The patient should always be placed in a recumbent position prior to its employment. 6. Constriction should be used whenever possible to limit the action of the drug to a desired area. 7. Use a freshly prepared solution for each case. 8. Distilled water should always be employed, to which phenic, salicylic, or boric acid should be added. 9. A two-per-cent solution has a better effect, and is safer than solutions of greater strength. 10. Never inject a larger quantity than one and one-eighth grains when no constriction is used. 11. About the head, face, and neck, one-third of a grain should never be exceeded. 12. When constriction is possible, the dose may be as large as two grains. 13. Every slight physiological effect is not necessarily to be taken as cause for alarm. 14. Cocaine does have effect upon inflamed tissues. 15. In case alarming symptoms occur, use amyl nitrite, strychnine, digitalis, ether, or ammonia.—*Codex Medicus.*

Appendicitis.

QUOTING from his 80 cases and noting that the statistics of appendicitis shew a much higher mortality after operation than without it, TALAMON who is not systematically hostile to surgical treatment, divides his 80 cases thus:—16 of chronic recurrence; 30, partial fibrinous (plastic) and 14 localized suppurating peritonitis; 13, simple parietal appendicitis and 7 diffuse peritonitis; or a larger number of medical than surgical forms of the disease. He thinks it better to try what medicines can do before recourse is had to the knife and to defer operating in cases of intense peritoneal inflammation. If the attack be already diffuse, delay does no harm. If otherwise and generalisation is simulated by the intensity of the inflammation and consequent nervous reaction, operation may be altogether avoided, or in 2 or 3 days, when limitation is established there is less risk of changing a local mischief into general peritoneal suppuration as has often been done, in children especially, by premature intervention. Cure is possible in some cases by spontaneous evacuation, but delay entails all the dangers of the perityphlitis and once the diagnosis of local suppurating appendicitis is established the surgeon should step in. The best time to operate is during the comparative quiescence after the out-break and before the fever of suppuration, when limitation is defined and provided no attempt be made to resect the appendix, the risks of the operation are reduced to those of opening an abscess.—*Med. Mod.*

Shock After Abdominal Operations.

IN a paper by Dr A. LAPTHORN SMITH, of Montreal, in the Canada Medical Record, upon "Shock After Abdominal Operations and how to Prevent it," the following conclusions are drawn:—

To sum up: 1. Shock is a powerful irritative of the great sympathetic, causing anæmia of the brain and heart and lowering of temperature.

2. The same results may be obtained by too much blood being lost during an operation, owing to defective hæmostasis.

3 The same results may be obtained by hæmorrhage into the abdominal veins, by the sudden removal of large tumors or quantities of ascitic fluid.

4. Shock is often due to prolonged anæsthesia in a badly ventilated room. Not a moment should be wasted during anæsthesia.

5. Depression of vital powers may also be due to prolonged exposure in wet clothing; the patient should be kept warm and dry.

6. Anæmia of brain can be prevented by operating in Trendelenburg posture; anæmia of heart can be prevented by having the arteries well filled before the operation, and by filling the abdomen with normal salt solution during the operation or by rectal enemas of salt solution after operation.

7. The administration of strychnine in doses of $\frac{1}{30}$ grain for three days before and three days after the operation diminishes danger of shock, partly because it keeps the intestines contracted and thus saves them from being handled; partly because is stimulates even a badly-fed heart to contract.

8. Important organs, such as the uterus or kidney, or even large segments of intestines, can be removed almost without shock provided the operation is performed quickly, with little hæmorrhage, and without much handling or exposure of the intestines.

Surgical Treatment of Ileus.

As a result of his investigations, NAUNYN gives relatively exact rules for the treatment of ileus, as follows:

1. The prognosis of the operative treatment of ileus is most favorable on the first and second day of its existence; on the third day it is markedly worse.

2. The best results (seventy-two per cent. of recoveries) are obtained in those cases in which obstruction is due to a rupture, not including cases of strangulated hernia.

3. In primary peritonitis, this condition and not the resulting ileus, must determine the operation.

4. (*a*) In chronic intestinal stenosis, the necessity for an immediate operation does not often arise (*b*) The seat of obstruction can usually be made out exactly if it is located in the duodenum, descending colon, sigmoid flexture, or rectum; otherwise it can only be guessed at. (*c*) Strangulation can often be diagnosed, and demands an immediate operation.

5. In three classes of ileus an exact diagnosis is possible, (*a*) Ileus from foreign bodies, *e g*, gall-stones; (*b*) valvulus of the sigmoid flexure; (*c*) intussusception.

Of treatment other than surgical, NAUNYN says:—

(1) Avoid cathartics. (2) Far better is the employment of large enemata of water, or injections of oil, five to sixteen ounces. Injections of air are less serviceable. (3) Opiates should not be given in large doses. (4) Washing out the stomach is advisable whenever there is fæcal vomiting or the stomach is overfull. (5) Food and drink should be reduced to the minimum. (6) Puncture of distended intestinal coils is of doubtful value.—*Med. News.*

OBSTETRICS AND GYNECOLOGY.

Uterine Tetanus with Threatened Rupture.

BRUNINGS saw a 3-para aged 33, with the following history: On Saturday labour began, and the midwife, an old woman, ruptured the membranes early in the evening. Sunday morning a doctor was called in, and found the uterus firmly contracted and the os nearly dilated. In the evening the condition was unaltered, though pains had been present all day. On Monday afternoon, the doctor endeavoured to deliver, both by forceps and by turning under deep narcosis, but unsuccessfully. On Tuesday at noon BRUNINGS saw the patient; the head had not engaged, but the os was fully dilated. Under narcosis forceps were applied, but no impression could be made; the cervix was greatly thinned out and there was marked contraction of the uterus round the child's neck. The child's heart beats ceased, and as the mother's condition was becoming grave, craniotomy was performed; but still delivery could by no means be effected, and as it was evident that the mother could not live much longer unless labour could be terminated, Cæsarean section was resorted to. The extraction was easy. The uterus was found to be very livid, and its peritoneal covering markedly œdematous, attaining in parts the thickness of the little finger. The operation lasted half an hour, but shortly afterwards the patient succumbed. The child was unusually well developed; the conjugata vera was just under 4 inches, and the transverse diameter at the brim 4½ inches. The uterine tetanus is to be ascribed to the premature perforation of the membranes in a case where a large child was found in conjunction with generally contracted pelvis. It is noteworthy that the child remained alive for so long after the onset of the tonic contraction of the uterus.—*Brit. Med. Jour.*

Value of Antipyrin in Labor.

IT is worthy of note that though they can under no circumstances supplant the ordinary anæsthetics, the coal-tar derivatives are immensely useful in those forms of pain which may be called nerve lesions, but are practically useless in the pains of inflamatory processes. Thus MISRACHI (*Therap. Gaz*) found antipyrin useless in the pains of perfectly normal labor and in the second stage of labor, but found it most efficient in tedious labor, where the pains were so severe as to reflexly interfere with the proper uterine contractions or where the liquor amni has been discharged too early, and where there is rigidity of the os, as well as for relief of after-pains. When used for arresting threatened miscarriage antipyrin has to be given in large doses as much 30 to 40 grains divided into 2 or 3 doses and given with 30 to 60 minutes interval between.

Dr. WELLS emphasizes the fact that *all rises of temperature* of whatever nature, *following labor*, demand immediate attention. If there is a suspicion that the fever is due to septic infection, no matter how slight it may be and this is manifested by the condition of the pulse, local abdominal symptoms, sweats, etc—the uterus should be thoroughly flushed with copious antiseptic douches, or better still, should be gently curetted with an drill curet. Great care must be taken not to perforate the organ as it is always more or less soft at this time. It is Dr. WELL'S usual custom in the Polyclinic service to follow the curettage with a uterine suppository containing 40 to 60 grains idodoform in cocoa butter, and a slight vaginal pack of sterilized gauze.—*Phil. Poly.*

Puerperal Eclampsia with Special reference to Treatment.

LOOKING upon puerperal eclampsia as a toxæmia peculiar to pregnancy and without parallel except during gestation, DR. WILLIAM W. POLTER sums up as follows:—(1) Though its pathogenesis is unsettled it belongs solely to the pregnant or puerperal state, and being neither apoplectic nor epileptic nor hysteric in character depends (2) upon toxæmia due to over-production or under-elemination of toxins (3) originating in (*a*) the ingesta (*b*) intestinal putrefaction or (*c*) fœtal metabolism, or (*d*) in one or all, and (4) there is coexisting sluggishness, improvement or suspension of elimination. (5) When the prodromes of eclampsia appear kidney function and all other symptoms must be carefully watched.

(6) As medical treatment alone is a delusion and a danger to both mother and fœtus the treatment should be (*a* preventive or (*b*) curative, that is (*a*) hygienic or (*b*) obstetric measures combined with medicinal treatment.

(7) To nourish the patient and dilute and hasten the elimination of the poison give milk-diet and distilled water in the pre-eclamptic state.

As it is liable to induce anæmia blood-letting should be employed only in cases of plethora or cyanosis. (*b*) Gloneoin may be freely given as it diminishes vasomotor spasm; but (10) Veratrum viride which is a cardiac depressant is a dangerous remedy to push.

(11) Eclampsia being the expression of a further maternal intolerance of the fœtus the sooner the uterus is emptied of its contents the better, and the prompt induction of labor (even premature) is not only a rational application of science to a desperate condition, but is also the (12) only basis of expectation for a diminished mortality in a toxæmic disease possessing a very high death-rate.—*Jour. Amer Med. Assoc.*

Treatment of Obesity in women.

OWING to possible interference by peri-uterine adherences, LUTAUD says that women require a different kind of treatment than that prescribed for men and finding scammony the purgative best adopted to such cases, simultaneously applies medical, dietetic, local and hygienic measures.

He prescribes:—(1) Scammony grs. xv. Ol. anise gtt. i. at midnight and repeated every 2 or 3 nights (2). Immediately before eating of a morning, a wineglass of some alkaline sulphate purgative water or a teaspoonful of ox. Fol. Sennæ, Pot. Tart. Acida, and Sulphur Sublim *aa* grs. xlv, powdered illicium grs. xxx and Sacch. Alb. ʒx. (3) ℞ Pot. Iod. ʒiiss, Ext. Fuci Vesic ℥i m,xv, and Syrup., Aurantii ʒvi. Sig. ʒss. on the nights when scammony is omitted.

For the dietetic part he orders:

Breakfast, 7 to 9 A.M.—Lean meat ʒii, toast or rolls *ad lib* and coffee without milk.

Lunch, 11 A.M. to 1 P.M.—Meat at discretion, toast or rolls ʒii, *one* egg, cheese, and a cup of tea.

5 P.M.—Tea or a glass of wine with a cracker.

Dinner, 7 to 8 P.M.—No soup, fish or meat at discretion, salad, vegetable ʒii, cheese, toast or rolls ʒii, a glass of pure Bordeaux or Burgundi.

Supper, 11 P.M. to 1 A.M.—A slice of cold meat, a cracker and a glass of madeira.

The local treatment consists in scientific massage of the uterus and adnexa and of the abdominal and lumbar regions.

Exercise he finds hardest to enforce or regulate but he advises parlour gymnastics and bicycling and the Turkish bath followed by the douche and massage.—*Jour. de Méd. de Paris.*

PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

Motor and Sensory Channels in the Cord.

The generally quoted conclusions from experiments are that motor channels cross at the bulb, sensory channels in the cord. Both statements must be qualified, and we may say at once that, whereas precision will be added to the first statement, reservation to the second must be made amounting almost to contradiction. With regard to motor channels, while their major part cross at the discussation of the pyramids, a minor part (in man) cross in the spinal cord, and we shall see that these parts are picked out by degeneration, as well as recognizable by their tardy development as the crossed and direct pyramidal tracts. But with regard to sensory channels, the evidence is far more uncertain and unfinished. Clinical evidence shows that the sensory tract crosses somewhere, but not where, until recently the statement was repeated unchallenged, and by mere force of repetition acquired perhaps undue credit, to the effect that sensory channels cross in the cord Now however there is an increasing disposition to abandon this view, the recent experiments of Gotch and Horsley, and those of Mott, have yielded evidence in opposition The electrical token of centripetal impulse has been found most pronounced on the same side of the cord as excitation, monkeys after hemisection have been found with the less sensitive leg on the same side as the lesion, as was originally stated by Gelen seventeen hundred years ago, presumably from experiments on monkeys To such opposition evidence must also be added the indirect testimony of degeneration—ascending degenerations above a hemisection are most marked on the same side of the cord, and degenerations between the bulbar nuclei and the cerebral cortex cross the middle line at the discussation of the fillet We seem, in fact, to be approaching the conclusion that sensory as well as motor channels have their major discussation in the bulb, their minor decussation in the cord, in which case we must admit that sensory impulses from each side of the body can pass up both sides of the cord, but that most pass on the same side —Dr Augustus Wallfe, "An Introduction to Human Physiology' page 481 —*N Y Med Rec*

Passage of Substances from Fœtus to Mother.

Lannois and Brian having had under observation a patient with grave symptoms of albuminuria origin, in whose case the symptoms suddenly disappeared on the death of the fœtus, though the latter was not expelled till seventeen days later, made some experimental inquiries, from which they conclude, (1) That substances (such as salicylate of soda, iodide of potassium, and methylene blue) injected into the fœtus, pass through the placenta, and can be detected in the tissues and urine of the mother (2) This experimental fact supports the view already advocated by Lannois, that normal excretory products of the fœtus pass through the placenta to be eliminated by the maternal organism (3) In cases of renal insufficiency these waste products of fœtal life can therefore in part contribute to the maternal auto-intoxication and consequently can play a part in eclampsia and other accidents associated with the albuminuria of pregnancy —*Brit Med Jour*

Cause of the first Sound of the Heart.

The closure of the auriculo-ventricular valves and the muscular contraction of the ventricular walls are regarded by many authorities as the source of the first sound, but Sir Richard Quain points out that this theory is incorrect, as his investigations prove that the first sound is caused by the impact of the blood driven by the action of the muscular walls against the block produced by the columns of blood in the pulmonary artery and aorta which press upon the semilunar valves.

Difficulties of Defæcation in Infants.

Who strain violently at expulsion of semi-solid fæces afford problems whose solution Dr Thos. Chas Martin. thinks is in the solution of the infantile stool and the imperfect development of the parts concerned in the mechanism of defæcation which latter are —(1) The infants lower gut is muscularly deficient and its intrinsic peristaltic power unequal to the tension required for fæcal expulsion.

(2) Mobility and angulation of the infant gut conspire to obstruct the passage of formed fæces.

(3) The disproportionate great resistance of the valves in the infant rectum is obstructive.

(4) Owing to the greatly contracted bony pelvic outlet the expansibility of the anus is deficient (or insufficiently) and constitutes an obstinate obstruction to the passage of semi-solid fæces.

(5) The infantile mesentery is too long to hold the upper rectum steady under the applied auxiliary force, while in the infant, who is in reality undergoing formative development, there is not that physiologic descent of the entire pelvic floor which reduces the last possible resistance to the minimum in adult defæcation —*Virginia Med. Semi. Monthly.*

Hæmatozoon of Goitre.

A Meeting of the Academy of Sciences was held on July 4th, when M. Grasset gave an account of his researches among persons afflicted with goitre Knowing the department of Puy de Dome was that where cases of goitre were the most common he went there, and after studying the question arrived at the following conclusions. Goitre is not a local affection, but a general one, with one predominating symptom—namely, an enlarged thyroid. Just as the enlarged spleen is the predominant symptom in malaria so the enlarged thyroid is the predominant symptom in goitre. There is a curious parallel also between malaria and goitre. Both have a special geographical distribution, both affect mainly a gland having an internal secretion, and in both when they reach an extreme degree cachexia supervenes—in the one case the well-known malarial cachexia and in the other cretinism M Grasset examined the blood from eight persons who suffered from recent goitre and was able to demonstrate the presence of a parasite. It showed in the from of spherical segmented bodies, larger in size than a red corpuscle, and recalled the hæmatozoon of malaria —*Lancet*

Protective Power of Leucocytes.

Dr Jacob says that if an infectious disease attacks the organism the protecting power of the leucocytes depends upon the amount of the toxin produced by the invading bacteria If this toxin amount be very great, the white blood corpuscles are affected by a continuous negative chemotaxis, they do not leave the blood making organs and they do not form any bactericidal secretion. Should the amount of bacterial toxin on the other hand, be only moderate, the negative chemotaxis is gradually changed into a positive one, the leucocytes hurry to the seat of conflict and form bactericidal products. These latter, however, are of a generic, not of a specific nature, it is only from the two components—the toxin of the bacteria and the secretion of the leucocytes—that a resultant antitoxin is formed, which antitoxin kills or at least diminishes the power of the bacteria It is at this time that phagocytosis sometimes occurs, the leucocytes taking upon themselves the role of transporters after having fulfilled that of bactericidal secretors.—*N. Y. Med. Record.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Peculiar Adulteration of Bread.

Was detected at Havre where the French Government seized a consignment of 10,000 lbs of finely ground sawdust which was imported by one M. FESSAT, who was forthwith arrested and confessed that he had carried on this nefarious trade for some time, during which he had shipped over 5000 waggonloads (i.e., about 268,800,000 lbs.) of this sawdust to various parts of France, where his customers were mostly millers who ground the sawdust in with the wheaten flour they supplied to the bakers. The investigations and resulting prosecutions will involve a large number of millers and bakers in the West of France, where FESSAT had carried on his operations on an extensive scale to the physical and financial detriment of thousands of bread-eaters.—*Pract. Med. Jour.*

Serum Therapy of Diphtheria.

RIEGS on a tangible foundation instead of still remaining in the stage of empiricism and Professor KROWLEIN, stated at the last congress of the German Surgical Society, that from 1880 to 1890 before the introduction of serum, his clinic treated 1,336 cases of diphtheria with the results shown in column A, while since 1894 he had treated every one of the 437 cases that came into hospital with anti-diphtheric serum with the results in column B.

	A.	B.
Total number of diphtheria cases ...	1336	437
Total number of deaths ...	594	55
Percentage of deaths ...	39	12
Cases operated on by tracheotomy &c.,	662	101
Number of deaths ...	432	36
Percentage of deaths ...	66	35
Number of cases without operation ...	674	336
Number of deaths ...	96	19
Percentage of deaths ...	14	5

Wherefore he concludes there is a decrease in (1) the death-rate and in (2) the number of cases requiring operation as well as in (3) the mortality of the cases operated on. He states improvement begins immediately after the injection which instantly arrests the morbid processes.

Lobster-poisoning simulating Atropine Poisoning.

DR. FISCHER reports such a case. A man and two women having partaken of lobsters, were seized with severe vomiting of a bilious nature, and soon presented the following symptoms, so characteristic of atropine-poisoning: Dryness of the throat, with difficulty of deglutition: dilatation of the pupils, imperfect accommodation; dry, hot skin; dulness of intellect, and general feebleness. There was also very obstinate constipation, the author having succeeded in inducing an evacuation only after large doses of castor-oil, senna, magnesium sulphate, and several soap-enemata. The general toxic symptoms improved under the hypodermic administration of pilocarpine (1·7 grn.), while for the eye-symptoms it was found necessary to employ eserine (1 to 2 drops of a 5-per-cent. solution, twice daily.—*Cal. Med. Jour.*

Law of Libel and Slander as affecting Physicians in America.

LIBEL consists in printing or writing anything unjustifiably accusing private persons, officials or governments of anything tending to injure them, make them ridiculous or harm them in reputation or public esteem. Slander is an oral statement similarly made, but an accusation may be slanderous or not according to the vocation of the accused and the pratique of the State in which it is uttered. A retired physician may be accused with impunity of what would slander a man in actual practice, and while it is slander to impute professional ignorance or malpraxis to a physician, it is not actionable to say, he was at fault in any special case. A physician seeking notoriety by puffing himself cannot recover damages from those who frustrate his attempts. Except it can be *proved* that there was a mistaken (though *bona fide*) diagnosis or that the article was realy useless. It is slander to falsely attribute a contagious disease to any person or condemn any article used in medical practice. A person uttering slander to a second person who repeats it may escape from responsibility if the damages result from the utterance of the second party and not from that of the originator. In any case actual damage must be clearly proved.—*Phil. Poly.*

Tubercular Infection of Rooms.

DR. RAMSOME, in a communication recently made to the Royal Society, reports the results of his investigations into the influence of products of respiration etc, on the growth of the tubercle bacillus. They prove that organically charged vapours form an excellent culture medium when kept away from the disinfecting influence of air and light. This power of promoting its growth is particularly manifest when the supporting substance is wall paper. Growth may take place at the ordinary temperature of dwelling rooms. There is, therefore, no safety against the increase of the organism in ordinary living rooms in which ordinary tuberculous dust is present, and in which the natural disinfectants of the bacillus, fresh air and light, are not present in sufficient amount to destroy its virulence.—*Treatment.*

Lead in Children's Toys and Buttons.

A NUMBER of children's toys, notably the furnishings for doll's kitchens, have been confiscated by the police-authorities of Berlin, and their further manufacture forbidden, because of the amount of lead they contain. Not more than 10% of lead is allowed to enter into the composition of children's toys in Germany, because of the danger of lead-poisoning. In some cases it was found that the toys contained as high as 80% of the metal. A very high percentage of lead was found also in buttons and other articles for children's wear, and these too were condemned. Lead-poisoning is considered by German health-authorities, too serious an affair to be trifled with, hence the stringent regulations.—*Phil. Med. Jour.*

Infant Feeding.

DR. L. EMMETT HOLT concludes as follows: 1. That good breast milk is the best infant food. 2. That no substitute for breast milk can be trusted which does not furnish essentially the same elements—fat, sugar, proteids, etc.—as breast milk. 3. That these elements are found only in the milk of other animals, cow's milk being the only one available for general use. 4. That cow's milk requires some modification before it is given to infants.—*N. Y. Med. Rec.*

THERAPEUTICS AND PHARMACOLOGY

Nutrient Enemata.

BRANDENBURG and HUPPERT of Riegel's Clinic draw attention to the value of alcarnose in rectal feeding. They think that nutrient enemata are not so widely employed as they ought to be. At first eggs were used for rectal feeding, and later these were peptonised. Milk has also been much employed. LEUBE'S pancreatic meat clyster has not been so widely used owing to difficulties in the preparation. A disadvantage in egg and meat clysters lies in the fact that decomposition may take place, and so lead to irritation of the bowel. According to BRANDENBURG'S experiments casein is only slightly absorbed, and the absorption of fat is also small. The increased excretion of urea provides important evidence in regard to the absorption of albumens from the rectum. The amount of nitrogen in the stools is not so reliable, because there may be a long retention in the rectum of the materials used. Investigation into the metabolism has been made in Riegel's clinic with several artificial food stuffs. The authors have used alcarnose, which contains albumens and carbohydrates in a digested state. It is thus a mixture of albumoses and maltose. The urea excretion, the amount of nitrogen in the stools, the presence of ethyl sulphuric acids in the urine, were especially attended to, as well as the general condition of the patient. In the many cases in which alcarnose was used no unpleasant effects were observed. The investigations into metabolism in three cases embraced three periods: (1) A preliminary period with known diet; (2) the alcarnose period; and (3) an after-period. The details are given in tabular form There was one case of gastric ulcer, one of arterio-sclerosis with hyperacidity, and one of neurasthenia. In all the cases there was a considerable nitrogen excretion in the urine, amounting in some instances to half the amount of nitrogen in the clyster The same amount was never found when casein was used. There was no increase in the intestinal putrefaction. The authors conclude that alcarnose is specially suited for rectal feeding.—*Brit Med Jour.*

Dangers of Blisters.

HUCHARD, in the discussion following Robin's paper on Bloodletting, Blistering, and Emetics while agreeing with the use of bloodletting and emetics attacked the blister. (1) It often produces an open wound, which facilitates secondary infections or the absorption of cantharides. (2) Besides causing the well known inflammation of the kidneys and bladder it has a general congestive action (3) Thus even in those diseases where it is most often used, such as pneumonia and pleurisy, it should be discarded, since, though it increases pulmonary ventilation, it increases also pulmonary congestion. (4) It tends to close excretion by the kidneys, so important in all infective diseases, and this is especially harmful in those normally causing albuminuria. Instead of aiding the excretion of toxins blisters are likely to produce a fresh intoxication. (5) The only real use of blisters is in their revulsive and analgesic action. This effect is best obtained by less dangerous means, such as mustard plasters or cold baths—*Brit. Med. Jour.*

New Treatment of Syphilis.

LALANDE, states that he has obtained remarkable results in the treatment of syphilis by the use of a fluid obtained by macerating young calves' horns, finely powdered in a one-per-cent. saline solution. These horns are especially rich in keratin. The fluid thus obtained is yellow, clear, limpid, with an odor suggesting [illegible] and contains small amounts of calcium and potassium sulphate, calcium phosphate, and large amounts of sodium chlorid and gelatin. This liquid is injected subcutaneously in doses of 15 to 45 minims once or twice a week, or even every day according to the urgency of the case. There is a slight reaction at the point of injection which soon disappears. The curative effects generally are manifest as early as the third injection. Mucous patches fade away, cutaneous lesions become copper-colored in a few days and then disappear, while ulcerating lesions dry and their crusts fall away leaving a smooth skin underneath. In this manner there have been treated thirty patients, seventeen of them being women. In nine cases the treatment was begun with the primary lesion, in nineteen in the secondary period, and in two in the tertiary period. The author does not offer any theory to explain the action of remedy, but the results were to him most satisfactory.—*Med. News.*

Dyspepsia with Flatulence.

℞ Tinct. gentianæ,
Tinct. valerianæ,
Tinct. nucis vomicæ ... aa 4
Chloroformi ... ... 20–40 gtt.
M. S. Ten to twenty drops in water before meals.

Anti-seborrhœic Hair Wash.

℞ Chloralis,
Ac. tartarici ... . aa 1
Olei ricini ... ... 0·5
Spiritus vini rect ... ... 100·
Essentiæ flor. æth ... ... 9·5
—RICHOFF.

Painless Vesicant Plaster.

℞ Menthol,
Chloral ... ... aa 1
Spermaceti 4
Cacao butter 2
M. S. Spread on a piece of linen.

Purulent Cystitis.

℞ Acidi salicylici,
Acidi boracici ... ... aa 5
Aquæ fervidæ ... .. ad 1,000
M. S. For irrigation of the bladder.
—RABAW and BOURGET.

Metallic Iodine for Severe Syphilis.

BOUVERON (*Lyon Medicale*) recommends the following —

℞ Metallic iodine ... ... 15 grs
Potass. iodide ... q. s. to make solution.
Glycerin ... ... 2 drams.
Citric acid ... ... 4 drams.
Syrup ... ... 2 pints

A teaspoonful is taken half an hour before meals, twice daily, until six teaspoonfuls a day are administered or even twice this quantity.—*Gaillard's Med. Jour.*

Chronic Otorrhœa.

℞ Iodide of potassium ... gr. xx.
Tincture of iodine .. ... 3 iij.
Alcohol,
Glycerin ... ... aa 3 iv.
℞ Iodoform ... ... gr. xx.

A small quantity to be injected into the auditory canal.—*Medical Press and Circular.*

Correspondence.

FUTURE POSITION AND PROSPECTS OF CIVIL ASSISTANT SURGEONS. ANOTHER SHAM.

To THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—I beg to send you the following article from the Lahore *Tribune*:—"The orders of the Government of India, which have just been issued with reference to the improvement of future position and prospects of Civil Assistant Surgeons, will be received with feelings of profound disappointment by the officers concerned. The question was taken up not a day too soon. The position of Civil Assistant Surgeons has remained unchanged for half a century. The service to which they belong was first constituted as a regular Government service in 1849, the year in which the Punjab was annexed. During the past fifty years there has been no increase to the scale of pay which was originally fixed for the three grades of Civil Assistant Surgeons, formerly called Sub-Assistant Surgeons. Now this period has witnessed the re-organisation of other branches of the public service, more especially since the Mutiny. In 1849, the lowest class of subordinate judicial officers—the Munsifs—received a salary of Rs. 100 per mensem; but they have for some years been drawing double that sum. The scale of pay for ministerial officers has also been increased; but the position of Civil Assistant Surgeons in respect of pay now practically remains the same as it was half a century ago. When their official designation was changed from Sub-Assistant Surgeons to that of Assistant Surgeons, they naturally expected that something would be done to improve their position and prospects; but this expectation was not realised. It was revived when the Public Service Commission was appointed a dozen years ago by the Government of LORD DUFFERIN; but the constitution of the Medical Services in India did not unfortunately, for reasons best known to the authorities, fall within the scope of the inquiries entrusted to the Commission. The Government of India have, however, now discovered that "of recent years the opportunities which are offered to natives of India, educated in medicine, according to European methods, of earning a living by private practice without entering Government service have much increased, and as a consequence the members of the service have some reason to be dissatisfied with their prospects." It is a great pity that this discovery was not made earlier. It is notorious that the Civil Assistant Surgeons have long been dissatisfied with their position and prospects. And their dissatisfaction was enhanced by the raising of the status of European and Eurasian Apothecaries, who are decidedly inferior to them in professional qualifications. They have from time to time submitted memorials to Government praying for an increase of pay in the various grades of their service; but as they were natives of the country, their case did not receive favourable consideration.

It must be said to the credit of the Bengal Government that they took up this important question and appointed a Committee on the pay and prospects of Civil Assistant Surgeons. When the Committee made their report, Sir CHARLES ELLIOTT, the then Lieutenant-Governor, submitted, in February 1895, definite proposals for effecting improvements in the position of this useful class of public servants. On receipt of the recommendations of the Government of Bengal, the Supreme Government decided to devise a scheme for bettering the conditions of service of Civil Assistant Surgeons not only in Bengal, but throughout India. With this object in view, the Government of India invited the opinion of Local Governments and Administrations upon such of the recommendations of the Government of Bengal as had commended themselves to the Governor-General in Council as likely to be suitable for adoption in all the Provinces. These were:—(a) the abolition of unemployed pay, which is the rate of pay which an Assistant Surgeon receives in certain Provinces while he is supernumerary and without a definite appointment; (b) the creation of a new grade of Civil Assistant Surgeons on Rs. 300 a month; and (c) the reservation of of a certain number of civil stations for the medical charge of Civil Assistant Surgeons. In inviting the opinion of Local Governments and Administrations upon these proposals, the Government of India pointed out that under existing orders unemployed pay is given to Assistant Surgeons only, when, having no temporary or permanent charges, they are merely attached to hospitals or on similar duty; that the number on unemployed pay would, if the service were carefully recruited, be very small; and that it would be a necessary condition of the abolition of unemployed pay altogether, except as a punishment, that greater care should be exercised in controlling recruitment. It appears that the Bengal Committee had recommended that an increase of Rs. 50 a month should be granted to Civil Assistant Surgeons at the end of 21 years' service, subject to a professional examination, and that those who were in receipt of this allowance should be graded as Senior Assistant Surgeons. This proposal did not, however, commend itself to the Government of India. Instead of adopting it, they suggested for the consideration of Local Governments and Administrations the following scheme as being more likely to increase the attractiveness of the service:—(1) that the *cadre* of Assistant Surgeons should be put into four grades—on Rs. 100, 150, 200, and 300 a month, respectively, (2) that the pay of Rs. 100 should be drawn continuously from the date of entry into the service; (3) that promotion should be made after seven years' service, subject to the usual examination; (4) that after 14 years' service a second examination should be held for promotion to the grade on Rs. 200, to which only those considered by the Inspector-General of Civil Hospitals to be fit for promotion would be admitted; (5) that promotion from the grade on Rs. 200 to that on Rs. 300 should be made entirely by selection and without any further examination but subject to a minimum of seven year's service in the lower grade; (6) that further advancement to the independent charge of a civil station should depend on exceptional qualifications and ability. The Government of Bengal had proposed that certain civil stations should be specified as charges to be held by Civil Assistant Surgeons. The Government of India did not approve this proposal. They observed that Civil Assistant Surgeons should be entitled to be appointed to the medical charge of a certain number of civil stations, if that could be arranged with due regard to the number of Civil Surgeoncies reserved for Commissioned Medical Officers and for Military Assistant Surgeons. It will thus be seen that in the matter

of appointment to the medical charge of civil stations, the Government of India considered the claims of Civil Assistant Surgeons inferior to those of Military Assistant Surgeons. We are entirely at a loss to understand the reasons which led the Government of India to come to this decision. Are Military Assistant Surgeons superior in the matter of professional qualifications? We hope this question will be answered by Dr. HARVEY, the present Director-General of the Indian Medical Service. As he served for many years as a Professor to Civil Assistant Surgeons in the Calcutta Medical College, his opinion on this subject will carry more weight with the public than that of Dr. CLEGHORN, who does not possess this special knowledge and experience required for arriving at a correct judgment on this important point

The views of Local Governments and Administrations upon the questions referred to them having been received, the Government of India have issued final orders on the subject. They have sanctioned the creation of a senior grade of Civil Assistant Surgeons on a salary of Rs. 300 a month. The number of Senior Assistant Surgeons in each Province must not however exceed 10 per cent. of the total strength of the service in the Province, excluding the Assistant Surgeons who may be permanently appointed to the charge of civil stations. The question whether the full number of Senior Assistant Surgeons should be appointed at once is left to the discretion of the Local Government and the Inspector of Civil Hospitals; but it is directed that only thoroughly competent officers should be appointed. Promotion from the first grade on Rs. 200 to the senior grade will be made entirely by selection and without examination. This provision, we are inclined to think, will lead to the exercise of favouritism on the part of the Inspector General of Civil Hospitals. The Bengal Committee had recommended that an increase should be granted to Civil Assistant Surgeons at the end of 21 years' service, subject to a professional examination; but the Government of India have decided not to accept this proposal. Promotion from the grades on Rs. 100 and Rs 150, respectively, will, as hitherto, depend on the results of septennial examinations. But Assistant Surgeons, who are not now in service, will not be permitted to appear at the second examination as a matter of course. They will not be allowed to do so unless they are considered fit for promotion by the Inspector-General of Civil Hospitals. It will thus be seen that the position of Civil Assistant Surgeons has been actually made worse under the new scheme than it is now. The rule that future entrants into the service will not be permitted to appear at the second examination as a matter of course will operate as a great hardship. It is to be earnestly hoped that the Government of India will reconsider this matter. The creation of a limited number of senior Assistant Surgeons will not make up for the loss caused by depriving future entrants into the service of the right of appearing at the second examination. As regards the reservations of a certain number of civil stations for Civil Assistant Surgeons, the Government of India have sanctioned the reservation of 19 Civil Surgeoncies for this class of officers—namely, 5 in Madras, 2 in Bombay, 5 in Bengal, 2 in the United Provinces, 3 in the Punjab and 2 in Burma. This number is quite inadequate to do justice to the various claims of Civil Assistant Surgeons, who should, in this respect, be at least placed on a footing of equality with Military Assistant Surgeons. The new scheme for improving the conditions of service of Civil Assistant Surgeons will greatly disappoint them. If the Government of India are sincerely desirous of bettering the position and prospects of this useful class of officers, they should raise the pay of each of the three grades at present existing by Rs. 50 a month. Such a general increase of pay would in some measure ameliorate the position and prospects of Civil Assistant Surgeons and make the service more attractive."

Yours &c., ASSISTANT SURGEON.

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CIVIL APOTHECARIES AND THEIR GRIEVANCES.

To the Editor, "Indian Medical Record."

SIR,—Through the great interest taken by you and by the Indian Medical Association, I am glad to note that the Civil Assistant Surgeons have at last had some of their grievances redressed, inasmuch as their pay and future prospects have been bettered I however regret to state, that nothing has yet been done for the unfortunate Civil Apothecaries, although in your issue of the 16th April 1896 (in which appeared a letter putting forth the grievances of the Civil Apothecaries) you were kind enough to note that the grievances of this class are "very real and must be embodied in the next representation to Government from the Indian Medical Association." I am sure a number of Civil Apothecaries who are subscribers to your journal and also members of the I. M. A. fully expected that something would at last have been done for them—but we have all been doomed to disappointment, since the question has not at any time been taken up by the Association.

As has already been pointed out in the letter that appeared in the I. M. R. of the 16th April 1896, the class of Civil Apothecaries serves the same purpose as the class of Assistant Surgeons does in other Presidencies The course of study—as also noted by you in your latest Directory—was, and is the same as that for the L.M.S. which is the qualification of the present Civil Assistant Surgeon grade of the Madras Presidency. It is a known fact that most of the students of the Apothecary class have shown themselves superior in attainments and qualifications to those of the L. M. and S. class; and several Presidency and District Surgeons could also testify to the abilities of this class after their leaving College. The only difference between the present Civil Assistant Surgeon grade and the Civil Apothecary grade, is, that the former appear for the university test and the latter for the test prescribed by Government. The Civil Apothecary is found qualified to do exactly what the Civil Assistant Surgeon is required to do; but in designation and salary there is a marked and unfortunate difference. Even in the scale of fees set down by Government for private practice and travelling no difference whatever has been made between the two classes. I therefore beg to request that "better late—than never"—the Indian Medical Association will be kind enough to advocate the cause of the Civil Apothecaries and obtain some redress for their wrongs.

In the notification of the Government of India dated August 27th 1892, certain important concessions were made to the Civil Assistant Surgeons. In the latter part of this notification it is stated that the new arrangement comes into force at once except in Madras and Bombay, where steps are to be taken to gradually assimilate the pay and position of Assistant Surgeons to the General scheme. This may perhaps mean that as the present strength of the Madras Civil Assistant Surgeon grade is only 25, the Civil Apothecary class will be absorbed with the Civil Assistant Surgeon class, as was sometime ago proposed by the Surgeon General with the Government of Madras. This could be very easily done, and the number of Assistant Surgeons would be raised to the proportionate strength of the other Presidencies. Unless this be done, the proportion of Civil Surgeoncies reserved for Madras according to the notification alluded to, will be far in excess of that for Bengal and Bombay, since five Civil Surgeoncies would be reserved for only 25 men.

You have in your valuable journal ably advocated the wrongs of the various classes of Military and Civil Assistant Surgeons and Hospital Assistants, and obtained some redress for their grievances: and you will now I trust be kind enough to espouse the cause of the hard-worked and badly paid C. A. class. And you will thereby earn the gratitude of no less than 142 unfortunate Civil Apothecaries whom nobody seems to think of, or take any interest in. In conlusion let me add that I hope the Indian Medical Association will, after due consideration, obtain for the Civil Apothecary class what is, and should be its by right.

Thanking you in anticipation for the kind interest you will, I know, take in our cause.

Yours &c., A CIVIL APOTHECARY OF MORE THAN 14 YEARS' SERVICE.

("If our correspondent will kindly refer to our remarks on this subject he will find that we asked for full information concerning this class of medical officers. It has not been forthcoming. If some representative of this class will detail the points of their grievances in the *Record*, something can be done.—ED., *I. M. R.*)

———:o:———

WHO DOES THE JOBS?

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR—I beg to bring to your notice, for the information of the Principal Medical Officer, Her Majesty's Forces in India, through the medium of your valuable paper, a few facts relating to jobbery and favouritism in the Indian Subordinate Medical Department. Although second, and first class Assistant Surgeons are really available, of good conduct, for the Subordinate charge of Rest Camps in the various Districts where Rest Camps are allowed, still owing no doubt to favouritism, and perhaps to what the Indian calls "*salami*" to the Head Clerks of the District Offices, this year 3rd Class Assistant Surgeons are being appointed for duty in the Rest Camps; now Sir this is not fair play to their seniors, as the post is really one for 1st or 2nd Class Assistant Surgeons and surely length of honourable service should entitle a man to some claim over a junior. The posts hold the allowance of Rs. 30 per month and a junior is not really entitled to it, this is proved by the fact that a junior when in charge draws also an acting allowance of 25 Rupees a month (as he is doing the duties of a 2nd Class man) thus a Junior gets 55 Rupees a month extra and a senior although available for the duty is robbed either for a short time, or for the whole period of an allowance to which he is legally entitled by right of seniority "*Oh Favouritism, thy name is Justice*"! The Government is also robbed by this arrangement Sir, because with a 3rd class man drawing 2nd Class pay and allowances and a senior available for the duty—

Government pays the senior	85	Rs. per month.
and the Junior	115	Rs. do
Total	200	Rs. per month

the other way with the senior doing his legal duty, and drawing his legal allowance—

the Senior draws	115	Rs. per month
and the Junior draws	60	Rs. ,,
Total	175	Rs. ,,

a saving on the face of it, of Rupees 25 a month to Government, and the P. M. O's of districts are supposed to save money for Government if possible, are they not? I wonder the Pay Department do not see though these official jobberies and take it up for the Government on the score of economy and justice to the Labourer. This is being done in two or three districts in the Bengal Command, and the Government and the tax-payer are losing by it. It is useless for the seniors to complain unless they have long purses. Hoping you will publish this,

Yours &c., FAIR PLAY.

———:o:———

OLD AND NEW TITLES.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—In my letter in your last issue, I would not be taken to oppose the legitimate alteration in the titles of our commissioned grades, necessitated by the changes in the I. M. S. consequent upon this New Warrant for the R. A. M. Corps.

No! coincident with the recognition of the composite titles as an objectionable anomaly for all Commissioned Officers, ours must needs share in the changes as a matter of course, unless indeed, it is intended to accentuate and ridicule their already sufficiently questionable status. Hence I considered it unnecessary to touch upon the subject in my letter of remonstrance.

I only protested against the substitution of one *departmental designation*, as distinguished from *military rank* for another, on the assumption that it was merely a logical extension of the principle involved in the new Royal Warrant, of course I am now referring to the non-commissioned grades.

I would be clear. Let the Departmental designations of "Assistant Surgeon and Senior Assistant Surgeon" stand. Merely alter the composite titles in the commissioned grades to correspond with those of the R. A. M. Corps and our own service "the I. M. S."

Yours &c., "AN OLD ASSISTANT SURGEON."

———:o:———

MILITARY ASSISTANT SURGEONS, ANOTHER PROTEST.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—I was more than pleased to read in the last edition of your valued paper the comments of "an old Assistant

Surgeon," I am sure he voices the opinion of the whole service, when he truly points out that if the suggestions put forward by "P" in your journal, dated 16th ultimo, be asked for and granted, it would be a decided retrograde movement. Personally I should consider that I had lost much if I had to affix the term "Sub-conductor" or "Conductor" after my name in place of the designation which indicates the noble profession to which I belong. I feel confident that the Indian Medical Association will not submit any such foolish proposal to the Government. I feel sure "P" does not belong to "our ilk" or such an absurd proposal would never have been penned. I feel confident also that "P's" views will not meet with support from the Service, on the contrary he will have to peruse many adverse criticisms on his wild schemes.

Yours &c., ASSISTANT SURGEON NOT CONDUCTOR.

———:o:———

THE C. D. ACTS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—"A medical man" asks me to withdraw my reference to his error (!) regarding the number of the ladies who signed the memorial on the C. D Acts. I am far from my station, but I think, he himself obtained his information from the *British Medical Journal*. He had better write to that Journal and set things right. I found lately in another paper the number put down at 85 so I will wait. Meanwhile I am waiting until "a medical man" answers the letter and complies with the request of your non-medical reader, and give us a synthetical statement of the case, a constructive defence of the C. D. regulations and perhaps he will be able to give a sound defence of the action of Government in no longer carrying on these regulations *openly* and above board in Lock Hospitals but in *Cantonment* Hospitals. It will take all the arguments he can bring to convince impartial witnesses, that they are not trying to throw dust in the eyes of folks here and in Britain, while at the same time they are inflicting an injury on the natives of the Cantonment by charging on the local funds the extra outlay demanded by this new arrangement for *Imperial* purposes. I hope "a medical man" will carefully answer "non-medical's" letter soon. I am waiting to be edified as well.

Yours &c., W. HUNTLY, M.A. M.D., B.SC.

NUSSEERABAD.

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WANTED TREATMENT AND OPINION.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Will you please let me know the best mode of treatment to be adopted in case of a burn of the whole arm, that is after the healing process has been completed. Opinion is specially required in regard to prevent the contraction that takes place at the elbow, and as to how the fingers are be flexed when stiff. How soon after can liniment friction be used?

Yours &c., MEDICUS.

THE EDEN SANITARIUM, DARJEELING.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—A movement is on foot in Darjeeling to convert the Eden Sanitarium into a real *hospital*. At present and for years past, the objects of this institution are being and have been much abused. It is simply utilised as a hotel, and in this way it has not only done harm to the interests of a well deserving class of public caterers (boarding house keepers) who have been practically ruined by the competition of the Eden Sanitarium, but the influx into its wards of men and women in obviously good health has tended to rob *really* sick people of the advantages of a change under medical supervision. It is very pleasing to note that the present Civil Surgeon, Dr. LEWTAS, who has made himself a *persona grata* with the residents of Darjeeling by his kind and skilful treatment, is in favour of abolishing the hotel element of the Sanitarium, and its conversion into a hospital, pure and simple. We hope the *Record* will support this suggested alteration.

Yours &c., DARJEELING DOCTOR.

(We have in our columns frequently exposed the objectionable phase of hotel competition which the Sanitarium has so long assumed, and we earnestly hope that Surgeon Lieutenant-Colonel J. Lewtas will use his influential efforts to bring about this much needed change for the public good.—Ed., I. M. R.)

———:o:———

COLLEGE FEES.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—I shall feel obliged if you or any of the readers of your Journal will kindly inform me through its columns, what the fees are that a Military Assistant Surgeon, Bengal, has to pay to procure the necessary certificates of lectures attended and courses taken by him in the Medical College, Calcutta, to enable him to appear for an English degree.

Yours &c. "ONE INTERESTED."

Book Reviews.

OFFICIAL YEAR BOOK OF THE SCIENTIFIC AND LEARNED SOCIETIES OF GREAT BRITAIN AND IRELAND.

(Publishers: CHARLES GRIFFIN, and Co. Ld., London, Price 7*s.* 6*d.* pages 281).

THE present, which is the fifteenth annual issue, fully maintains the excellent standard reached by its predecessors. A chronicle is given of the work done during the year by the several Scientific and Learned Societies at Home in the various departments. This publication which may well be regarded as a Record of Progress in every sense of the term, will be found to be a most convenient hand book of reference.

THE STORY OF THE MALAKAND FIELD FORCE, AN EPISODE OF THE FRONTIER WAR.

BY W. L. S. CHURCHILL, LIEUTENANT, Q.O.H.

(*Longman's Colonial Library, pages 336, with Maps, Plans, &c.*)

WE are here furnished with a very handy, concise, and interesting narrative of the Campaign of 1897 whose principle events are no doubt still fresh in the recollec-

tions of our readers. Its value is increased by the circumstance that the Appendices include the text of the military despatches with the official records of approval &c., while an excellent portrait of Major-General Sir Bindon Blood, K.C.B., who commanded the Malakand Field Force, precedes the work.

THE DOCTRINE OF ENERGY, A THEORY OF REALITY.

By B. L. L.

(Publishers :—Messrs. Kegan Paul, Trench, Trubner and Co. Ld., London. Price 3s. 6d. pages 108,)

An effort has been made in this brochure towards substantiating the theory that the conception of energy, recently postulated on behalf of Physical Science, really embraces and supersedes the conception of matter, and by itself adequately explains the real element in all physical phenomena. The attempt made to prove this original theory is as clever as it is bold, and will repay perusal by persons with a taste for metaphysics.

A TREATISE ON APHASIA AND OTHER SPEECH DEFECTS.

By H. Charlton Bastian, M.A., M.D., F.R.S.

Emeritus Professor of Medicine in University College, London, &c., &c.

(Publisher : H. K Lewis, London, pages 366, Price 15s.)

This work treats in a more ambitious and exhaustive manner than has hitherto been attempted, the subject of the various defects of speech. The complete, if somewhat lengthy, views of the author are supported by a large number of typical cases which have come under his own experience. The book is certain to prove exceedingly valuable to medical men and others interested in the subject with which it deals.

Government Medical Gazettes.

GOVERNMENT OF INDIA.

Hosp. Asst. Desu Ram made over, 1st Aug. 1898, the medical charge of the Detachment, Erinpura Irregular Force at Abu, to Hosp. Asst. Rampershad Banerji, Rajputana Agency Hosp.

Surgn.-Col. A. Stephen, M.B., I. M. S., (Bengal), Principal Med. Officer and Sany. Commr. Assam Dist., to officiate as Insptr.-Genl. of Civil Hosps. Punjab.

Asst. Surgn. Guildford Thoy to be second-class Asst. Surgn. from 14th May 1898.

Asst. Surgn. Herbert Edward Benson to be second-class Asst. Surgn. from 7th June 1898.

To be Surgn.-Col. Brig. Surgn.-Lt. Col Arthur Mudge Branfoot, 1st March 1898.

To be Brig.-Surgn.-Lieut.-Col. Surgn.-Lieut.-Col. Arthur Henry Colle Dane, M.D., 1st April 1898.

To be Senior Asst. Surgn. with hony. rank of Surgn.-Capt. George William Bate, 21st Sept. 1897.

To be Senior Asst. Surgn. with hony. rank of Surgn.-Lieut. Henry Herbert Miles, 21st Sept. 1897.

Asst.-Surgn. Julius Brown to be Senior Asst. Surgn. with hony. rank of Surgn.-Lieut

Asst. Surgn. William F. O'Connor to be Senior Asst. Surgn., with hony. rank of Surgn.-Lieut.

To be Senior Asst. Surgns. first class James Halpin, Thomas Baldry, Arthur Willoughby Woodward Sadlier, Eugene Alfred St. Romaine, William Christopher Montague Charters, and James Adolphus Fanshaw Harvey, from 6th Dec. 1898.

To be Asst. Surgn. Henry Osmond Basely, Frederick William Mathews, Herbert Charles Thompson.

To be Brig. Surgns. Lieut. Col. Surgn.-Lieut.-Col. John Philip Greany, M.D., 9th June 1898.

Third class Asst. Surgn. Alexander Douglas Cunningham Perdrian to be second-class Asst. Surgn., from 29th Jan. 1898.

Senior Asst. Surgn. and Hony. Surgn.-Lieut. Richard Michael Blaker to be Senior Asst. Surgn. with hony. rank of Surgn.-Capt.

Asst. Surgn. Isaac Burnett to be Senior Asst. Surgn. with ho rank of Surgn.-Lieut.

Second class Asst. Surgn. William David Busher to be first-class Asst. Surgn, third-class Asst-Surgn. Arthur George Culpeper to be second class Asst. Surgn, from 17th Feb. 1898.

BENGAL GOVERNMENT.

The services of Surgn.-Major W. B. Bannerman are replaced at the disposal of the Govt. of India, Home Dept.

The services of Surgn.-Capt. B. H. Deare, Offg. Civil Surgn. of Midnapore, are placed temply. at the disposal of the Chairman of the Corporation of Calcutta.

Dr. J. A. Fink, Offg. Civil Med. Officer of Bhagalpur, to act as Civil Med. Officer of Midnapore.

Asst. Surgn Ambica Charan Datta to act as 2nd Demonstrator of Anatomy, Med College Hosp., Calcutta.

Asst Surgn. Benode Bihary Ghosal, to tempy. med. charge, Tangail subdn., Mymensingh.

Asst. Surgn. Bharat Chandra Dhar, Tangail subdn., leave for three months.

Asst. Surgn. Mohendra Nath Das, to Jessore Dispy.

Asst. Surgn. Upendra Narain Roy, Jessore Dispy. to the dispy. in the Tributary State of Dhenkanal.

The following Civil Hosp. Assts. passed the medico-legal examination of Med. Subs., 30th June 1898, Gokul Chander Chatterjee, Mohit Chunder Ghose, Raj Mohun Bonick, Nibarun Chunder Ukila, Jagabundhu Gupta.

Asst. Surgn. Brojo Nath Shaha. Civil Eng. College, Sibpur leave for two months.

Asst. Surgn. Kasi Nath Ghosh, to do duty Civil Eng. College, Sibpur.

Asst Surgn. Mohendro Nath Dutt did supery. duty, Med. College Hosp. Calcutta, from 29th July to 5th Aug. 1898.

The services of Surgn.-Capt. C R. M. Green, Offg. Civil Surgn. of Howrah, are placed tempy. at the disposal of the Chairman of the Corporation of Calcutta.

Surgn. Capt. E H. Brown, Civil Surgn. of Purnea, to act as Civil Surgn. of Howrah.

Dr. J. A. Fink Offg Civil Med. Officer, of Bhagalpur to act as Civil Med. Officer of Purnea,

Surgn.-Capt. J. C. S. Vaughan, Depy. Sany. Commr., to act as Civil Surgeon of Burdwan.

Asst. Surgn. Gopal Chander Mukerjee to act as Depy. Sany. Commr. also on special duty in connection with anti-cholera inoculation.

Asst. Surgn. F. J. Daley did duty at the Presy. Genl. Hosp., Calcutta, from 4th to 10th June 1898.

PUNJAB GOVERNMENT.

Surgn.-Col. A. Stephen, M.B., L. R. C. S. (Dengal), Prisl. Med. Officer and Secy. Commn. Assam dist. to officiate as Insptr.-Genl. of Civil Hosps., Punjab.

The services of Hosp. Asst. Hovan Das being no longer required for special plague duty in the Jullundur dist., he reverted to Shahkadar Dispy. Peshawar dist. 22nd Aug. 1898.

Hosp. Asst. Sahib Ditta Mal, one month's privilege leave from 25th June 1898.

Hosp. Asst. Sahib Ditta Mal was placed on genl. duty, Jullundur, from 25th July 1898.

The services of Hosp., Asst. Karm Chand being no longer required for special plague duty, Hoshiarpur dist., he was reapptd. to Garhshankar Dispy, same dist. 25th July, 1898.

The services of Hosp. Asst. Tulsi Ram being no longer required for special plague duty, Jullundur dist., he reported himself to the Civil Surgn., Amritsar, for genl. duty 22nd Aug. 1898.

Hosp Asst. Gurmukh Rai, Pehowa Dispy. Karnal dist., three months' privilege leave, from 26th Aug 1898.

Hosp Asst. Sukhraj Das, to City Branch Dispy, Sialkot, 22nd Aug. 1898

Hosp. Asst. Ghulam Hussain was placed on genl, duty at Ludhiana, from 27th Aug 1898.

Hosp. Asst. Gurmukh Singh having passed the English Qual. Examis. entitled to the higher rate of pay of his grade, from 2nd July 1898.

Hosp. Assts. Brij Lal, Hari Singh, Wali Muhammad, Labha Mal, Devi Dial, were placed on genl duty, Mayo Hosp Lahore, from 27th Aug. 1898.

CENTRAL PROVINCES GOVERNMENT

Mr. Thomas W. Quinn is confirmed in his appnt in the U. M S, and his services are placed at the disposal of the Chief Commr from 17th July 1896

Civil Hosp Asst Baliram, Ramkrishna Lal, Ramchandra Sitaram to do duty under Civil Surgn of Nagpur.

One month's privilege leave is granted to Hosp Asst., Lakshman Bapuji, Itwari Branch Dispy., from 21st Aug 1898.

Hosp. Asst Narain Vinayak, Jail Hosp, Bilaspur, to do duty under Civil Surgn, Bilaspur.

Hosp. Asst, Ramkrishna Lal, doing duty under Civil Surgn., Nagpur, is tempy. posted to the Itwari Dispy.

N. W. P. AND OUDH GOVERNMENT.

Surgn Capt. J. Garvie, Offg Civil Surgn. Sitapur, privilege leave for two months.

Asst. Surgn. Prakash Chandra Mukerji, Sadar Dispy. Aligarh, privilege leave for 3 months, from 24th Sept. 1898.

Asst. Surgn Gopal Chundra Gupta, to Secundrabad Dispy., Bulandshahr.

Asst. Surgn. Chanan Singh, on Reserve duty at Agra, to Sadar Dispy, Aligarh.

Hosp., Asst. Nazir-ud-din, Police Hospital, Meerut, is promoted to 1st grade, 14th April 1898.

BURMA GOVERNMENT.

R. A. Hollingsworth, L. G. Fink, and H. J. Augustine, are confirmed in their appnts. in the U M. S., and their services are placed permanently at the disposal of the Govt. of Burma, from 15th March, 24th June, and 11th July 1894, respectively.

Mr. C. Martin made over, and Asst. Surgn. W. St, M Hefferman assumed charge, Civil Surgncy., Moganng subdiv. Myitkyina dist., 20th Aug. 1898.

Asst. Surgn. San C. Po middle-aged, and Asst. Surgn P. McCarthy assumed charge Civil Surgncy., Kyaukse dist., 17th Aug. 1898.

Asst. Surgn San C. Po assumed charge Civil Hospl., Bassein, 26th Aug. 1898.

Hospl. Asst. Ghulam Mustafa, assumed charge Civil Hospl. Lashio, Northern Shan States, as a supery., 27th June 1898.

Hospl. Asst. Ghulam Mustafa, assumed charge of duties with the Mily. Police escort proceeding to Tawnio, Northern Shan States.

Hosp. Asst. Ghulam Mustafa assumed charge Outpost hosp. Tawnio, Northern Shan States.

Hosp. Asst. Wasir Singh, assumed charge Civil Dispy., Kengtung, Southern Shan States, 4th Aug. 1898.

Hosp. Asst. Shaik Abdul Rahman, assumed charge Civil Hosp. Pagan, Myingyan dist 21st Aug 1898.

Hosp. Asst. Shaik Abdul Rahaman, assumed charge Mily. Police Hosp. Pagan, Myingyan dist, 21st Aug 1898

Hosp. Asst. Hem Chandra Koyal assumed charge Genl. Hosp., Akyab, 20th Aug 1898

Hosp. Asst. Ram Chandar Paddar assumed charge Civil Hosp. Paungbyin, 17th July 1898.

Hosp. Asst. Sunder Singh, assumed charge Civil Hosp Letpadan, Thurrawaddy dist, 22nd Aug 1898.

Hosp. Asst. T. V. Annandam Nambiar assumed charge Mily. Police Hosp. Pakokku, 25th Aug 1898.

Hosp. Asst. P Devaraju Pillay assumed charge Mily. Police Hosp, Bhamo, 20th Aug, 1898.

Hosp. Asst. Gajan Singh, relinquished charge Mily, Police, Hosp. Bhamo, 20th Aug. 1898,

Hosp. Asst, Chowdhury Sharfuddin assumed charge Civil Hosp, Minhla, Thayetmyo dist, 18th Aug. 1898.

Hosp Asst Chowdhry Maula Buksh assumed charge Civil Hosp, Victoria Point, Mergui dist 31st July 1898.

Hosp. Asst, S. Munitratna Pilly assumed charge Outpost Hosp Fort White, Chin Hills, 21st July 1898

Hosp. Asst H Mangesh Rao, assumed charge Jail Hosp. Yamethin, 11th Augt 1898

Hosp Asst. M Henry Peter, assumed charge Mily. Police Hosp. Moganng, 12th Augt 1898

Hosp. Asst. Babu Saraswati Dutta Misra assumed charge Mily. Police Hosp Mandalay, 19th Augt. 1898.

Hosp Asst. T. J. Govindasawmy Pillay, assumed charge Civil Hosp. Myingyan, 22nd Augt. 1898.

Hosp. Asst. T J. Govindasawmy Pillay, held charge Police Hosp. Pagan, Myingyan dist from 6th 21st Augt. 1898.

Hosp. Asst. T. J Govindasawmy Pillay, relied. charge Civil Hosp. Myingyan, 25th Augt. 1898.

Hosp. Asst S Bastian was attached as a supy to Civil Hosp. Myingyan from 22nd Augt. 1898, to 25th Augt. 1898.

Hosp. Asst. S Bastian was assumed charge Civil Hosp. Myingyan, 25th Augt. 1898.

Hosp. Asst. Dhanaswar Panda, assumed charge as a supy. at the Civil Hosp Lashio, Northern Shan States, 31st May 1898.

Hosp. Asst. Dhanaswar Panda assumed charge Mily. Police Hosp. Kutkai, Northern Shan States, 24th June 1898.

G. O. C. C.

Col. S. de la C. Corbett, M.D., P S O, to be Prin. Med. Officer, Oudh and Rohilkhand dist.

Brig.-Surgn.-Lieut.-Col. C. W. Carr-Culthrop, M.D., to officiate as Principal Med. Officer, Assam dist.

Asst. Surgns. George Edward Shaw, George Patrick O'Brien Edward Archer, having passed their dept. exam. are entitled to the enhanced rate of pay of their class.

John Rajaratnam, and Muhammad Abdul Azim Khan, having passed their final exam. are admitted into the service as Sub-Hosp. Assts. from 30th June, 1898.

ASSAM GOVERNMENT.

Munshi Abdul Aziz, a passed student Dacca Med. School, is apptd. on probation for six months, a Civil Hosp. Asst. in Assam, and is posted to Tezpur for duty as a Supy., from 23rd Aug. 1898.

Hosp. Asst. Rash Mohan Chakravarti, a Supy., Khasi and Jaintia Hills dist., to Sylhet dist., and apptd. a Supy., for duty under Civil Surgn., from 31st July 1898.

Sick leave for two months, is granted to Hosp. Asst. Sasi Kanta Sen, Chhatak Dispy. Sylhet dist., from 20th Aug. 1898.

Hospy Asst. Rash Mohan Chakravarti, a Supy., Sylhet dist., to Chhatak Dispy., from 19th Aug. 1898.

Babu Rajani Kanta Mallik, a passed student, Dacca Med. School, is apptd. on probation for six months, a Civil Hosp., Asst. in Assam, and is posted to Silchar, Cachar dist., for duty as a Supy., from 27th Aug. 1898.

Babu Narendra Nath Dam, a passed student, Dacca Med. School, is apptd., on probation for six months, a Civil Hosp., Asst. in Assam, and is posted to Dhubri, Goalpara dist., for duty as a Supy., from 30th Aug. 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTHS.

GARVIE.—On the 15th August, 1898, at Naini Tal, the wife of Surgeon-Captain J. Garvie, I. M. S., of a son.

DEATH.

SEMPLE.—On the 31st August, 1898, at Kasauli, Punjab, of Enteric fever, Marion Ethelwyn, the dearly loved wife of Major J. Semple R.A.M.C.

NOTICES TO CORRESPONDENTS.

T. H. A. (Sholapur)—We regret the omission you mention. The information given us officially was not complete. We have now applied to Government to supply this want.

Civil Assistant Surgeon.—You suggest with regard to the questionable "improvements" just made in your service, that the Government should change your designation to that of *Surgeon*, that the promised 19 Civil Surgencies should be made available *at once*, and that the 300 Rs. grade should be attainable by seniority and examination. You complain that under present arrangements the so called improvements are mere "castles in the air." The Council of the Indian Medical Association have already taken note of the remarkable *Gazette* notification which you refer to, and they will make a further representation to Government if the orders made in it are not carried out.

A. W.—Many thanks.

E. N. (Poona)—Writes with reference to the promotion list of the Indian Subordinate Medical Department for Field Service in the N. W. F. War; "I find that the names of Madras and Bombay Subordinates are conspicuous by their absence. Can you or any of your readers inform me of the cause, as I am confident several Bombay hands were highly recommended for this distinction."

R. E. W. (Landour)—You have our best thanks for your further contributions.

J. H. (Madras)—Your paper will appear in our next number.

H. K. M. (Bombay)—Private practitioners are at liberty if they are not in good circumstances to obtain the *Record* for Rs. 9 instead of Rs. 18, Hospital Assistants who enter private practice on leaving the service are subject to these terms.

J. W. P. (Chatrapur)—Next number.

One Interested writes:—"I note among the promotions for field service on the North West Frontier in the Indian Subordinate Medical Department, that not a Subordinate of the Madras or Bombay Establishment has been promoted, though I am informed several were recommended. Can you or any of your numerous readers enlighten those interested as to the cause of this omission." If our correspondent will send the details of his experience of the grievance he and his comrades have suffered, for publication in the *Record*, we shall be glad to give him space.

J. P. M. (Sampgaon)—Join the Indian Medical Association without delay, you will then be in a position to *claim* consideration.

W. H. T. (Karachi)—Many thanks. We are waiting for a few more names before publishing another list.

H. W. D.—Stick to the service for a while. We know many are disgusted with the I. S. M. D. but we feel sure the Government will soon make improvements in the department.

Dr. J. PRENTIE writes:—"I should feel much obliged for information as to the source from which you obtained the small paragraph at head of first column in page 205 of your issue, dated 1st September 1898.

I am the Civil Surgeon of Bhandara and I have not ordered a military outfit from Ranken & Co., or any other firm." The paragraph referred to, mentions the name of Major Tomkins, L. S. A. London.

S. B. H. (Surat)—Refer to the current Medical Literature section of the *Record* in its back numbers 1895-1896, and you will get all the information you require.

S. A. K. (Tharrawady)—Refer to the latest Edition of the Medical Register and Directory of the Indian Empire.

ORIGINAL ARTICLES.

DISORDERS OF THE LIVER IN TROPICAL CLIMATES.

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The disordered function of the great secreting organ, the liver, gives rise to many ailments, which, more generally than perhaps consistently, are in the popular acceptation ranged under the head of bile, a fluid necessary to digestion, which also promotes the passage of the fæces through the alimentary canal. What is meant by these several terms is, that the affections indicated are to be attributed to an increase, diminution, or alteration in the secretion of bile by the liver. Bile is a peculiar bitter fluid, of a yellow or greenish colour, which, when secreted by the liver, either passes directly through the hepatic duct into the upper part of the bowels, or, remaining for a time in the gall-bladder, a small membranous receptacle or pouch, of a pyriform shape, situated at the inferior and concave surface of the liver, to which it is attached and above the colon, thence passes by the cystic duct into that portion of the small intestine termed duodenum. It is said by some anatomists that the gall-bladder is not met with in all animals. It is wanting in the elephant, horse, stag, rhinoceros, and goat; in certain of the cetacea (an animal of the whale kind), in some birds, as the ostrich, pigeon, and parrot; and is occasionally deficient in man (?), Its largest part or fundus is turned forwards; and when filled, frequently projects beyond the anterior margin of the liver. Its narrowest portion, cervix, or neck is turned backwards, and terminates in the cystic duct, externally it is partly covered by the peritoneum, which attaches it to the liver, and to which it is, moreover, adherent by cellular tissue and vessels. Internally, it is rugous; the folds being reticulated, and appearing somewhat like the cells of a honey-comb.

Most disorders of the liver are recognized by an uneasy, dull, heavy, aching sensation in the right side, a pain at the top of the right shoulder, loss of appetite, sluggishness of the bowels, occasionally diarrhœa or dysentery and great general weakness. If not early attended to, these symptoms are sooner or later followed by others more serious, when medical aid is indispensably necessary. The application of a mustard leaf, superior to the old fashioned mustard poultice, or a turpentine fomentation, and a couple of Compound Rhubarb pills, or one or two Cascara Sagrada tabloids at bed time with light and easily digestible diet and no alcoholic drink taken, unless there is great prostration of strength, may, and very often will, remove all the above symptoms. Torpidity of the liver is so very frequently caused by sedentary habits, that often nothing further is required to remedy it beyond good, active systematic exercise. If Europeans in India were only to take more active exercise, (but whatever exercise is taken, it should not be sufficient to induce exhaustion or fatigue), but less animal food, and be more temperate in the use of alcoholic beverages, the risk of suffering from liver disease would be materially diminished. Indeed, it may be safely asserted, that a very large, if not the larger, number of those who suffer from "liver", owe their diseases more to their own imprudent habits, than to the climate, pure and simple. That form of headache to which the term liver, or bilious headache is applied, though often connected with alteration of the hepatic function, is also frequently dependent on disorder of the stomach. It is characterised by a dull, heavy feeling, rather than of acute pain in the head, chiefly in the forehead over the eyes, and in the eyes themselves. These organs, if pressed upon or turned upwards, are found to be very painful.

There is often giddiness, always great languor and depression, and a tendency to drowsiness and sleep, which, though deep, is not refreshing. The conjunctiva, or white portions of the eyes, are sometimes slightly jaundiced. There is very generally nausea and sickness, and after continuing for a longer or shorter time, the attack is not uncommonly terminated by vomiting of green bile, often in considerable quantity. The bowels in such circumstances have most probably been irregular for some days previously, perhaps obstinately confined. Many persons suffer from frequently recurring attacks of bilious headache, while others, by a careful attention to diet and regimen, contrive to ward them off. Those who are apt to be thus affected should exercise great caution in the matter of food. All rich articles should be avoided, such are by no means, well named bilious; nor should less care be exercised in regard to what is chosen for drink. Bilious subjects should learn to avoid highly dressed meat-stews and such like, pastry and malt liquors, plainly dressed and well cooked meat, and not much of it, farinaceous food, and for drink, a glass of sherry wine in water, or the lighter wines are more suitable, as to tea and coffee, they sometimes disagree with such persons, and if so, milk, cocoa, or chocolate may be substituted. The bowels must be carefully regulated. It is surprising how much may be done in this way without having recourse to medicine. By due attention to diet and regimen, the healthy action of the alimentary canal may often be maintained. For the relief of the headache, however, a dose of laxative medicine will generally be found indispensable, let it be if sulphate of magnesia, a Seidlitz powder. Eno's Fruit Salt, or Lamplough's Pyretic Saline may be used, let cold be applied to the forehead, and, while the headache lasts in a severe form, let the patient practise abstinence; when the headache has abated, if appetite speedily returns, as it sometimes does in a keen degree, let there be indulgence to a limited extent only in what is simple food of easy digestion. Delicate women and young girls affected by anæmia often suffer from attacks of bilious sick headache which may be periodic and connected with uterine disorder, or monthly irregularities. Such cases have been termed megrims, and are best treated by rest, quinine, and liberal diet with ferruginous mixture (Griffith's) and some bitter aperient, such as the Decoction Aloes co. are useful in the intervals. Another remedy for this form of headache has recently been found in Phenacetin, which is highly spoken of, one lozenge of Phenacetin containing 4 or 8 grains should be taken on the first appearance of the attack, and the patient directed to lie down in a darkened room, a second dose may be taken after an hour, and, if necessary, a third and fourth; but

the second is usually sufficient to bring on a pleasant languor, which is succeeded by relief or complete recovery.

Bilious fever.—This form of fever frequently passes under the name of Bilious Remittent fever because almost invariably associated with symptoms of disordered liver, such as the existence of pain or tenderness over the hepatic region and a sallow colour over the surface of the body. It occurs chiefly in warm climates produced by malarial causes, the presence of much moisture, and of decaying vegetable matter, there is usually chilliness or rigors, hot dry skin, intense headache, aching of the back and limbs, scanty and high coloured urine, disordered bowels, and sometimes vomiting of biliary matter. Fevers thus characterized are not unfrequently relieved by a dose of calomel and James' powder (4 to 5 grains of each) followed by a dose of Castor oil. Subsequently recourse should be had to some febrifuge remedy, and none is better than the ordinary diaphoretic or fever mixture given in appropriate doses, every two or three hours until the skin becomes cool and a free perspiration established. The warm bath, or the application of hot fomentations over the right hypochondrium, should not be neglected. During the remission of fever, when once the state of the bowels has undergone improvement, quinine should be administered in proportionate doses (3 to 5 grains) in combination with dilute aqua Regiæ and Spirit Ether Nitrosi, twice or three times a day, until complete cessation of the fever. The following usually answers well :—

℞ Quiniæ Sulph.	...	...	gr. iii.
Dilut Aquæ Regiæ		...	♏ x.
Spt. Ether Nitrosi		...	ʒ ss.
Syrup. Aurantii	...	...	ʒ i.
Aquæ	...	ad ...	℥i. misce.

fiat haustus, ter in dies sumendus.

There is a similar form of fever prevalent in childhood, to which the name of Infantile Remittent fever has been given. Children from two to ten years of age suffer from it most frequently, usually the affection comes on suddenly, and the febrile excitement runs high. But after the continuance of a hot skin, and quick pulse with pains in the limbs, back, and head, loss of appetite, and other feverish symptoms for some hours, these all, undergo a great change, becoming much less observable; and, when morning arrives, the child is found almost free from fever. As the day advances the condition of feverishness returns, and so the disease continues for five or six days' but it may be also for weeks. This form of fever observes no definite duration, the length of the illness will depend chiefly on the treatment. With these symptoms there is very generally found some sufficient cause of irritation, perhaps in the mouth, the child cutting its teeth at the time, or as happens more frequently, in the stomach and bowels. The latter are generally costive or relaxed, or both alternately; the evacuations dark or clay coloured, worms, moreover, are often present. The child is irritable and very fretful. Cases of this nature must always be carefully watched for during their progress, various symptoms of a serious and alarming nature are apt to be developed, sometimes connected with the head, sometimes with the chest, or convulsions may supervene through the medium of the nervous system to the brain, dependent in the process of teething, which is often difficult in some children.

In the early treatment of such cases, a hot bath, and a dose of calomel and James' powder so as to affect the liver and act upon the bowels, are generally serviceable. While the disease lasts, diaphoretics or febrifuge medicines, and small doses of rhubarb and magnesia (Red mixture) should be given to regulate the bowels, unless diarrhœa exists; and if so, lime water, with a little milk added, will be found useful. In this disease as in enteric fever, it is of great importance to watch the state of the alvine secretion, both before and after the administration of medicines. During the remission of the fever, quinine hydrobromas should be given in doses according to the age of the child (1 to 2 grains or more, three or four times, at intervals during its continuance). The diet must be carefully regulated, very gradually from a wholly milk and farinaceous diet may one of mixed animal and farinaceous food be reached; the latter including mutton and beef-tea, and chicken broth, etc. Before passing from this subject, a word may be added in regard to that ailment from which young children, particularly those who are subsisting entirely, or almost so, on a milk diet, are prone to suffer. An ailment characterized chiefly by an altered condition of the stools, their pale or even white appearance, owing to deficiency of bile, this state depends or an imperfect action of the liver. In such cases the tongue is generally white, a disposition to boils, sickness and thirst are other symptoms. This condition is best treated by the employment of alterative remedies; and of these, the grey powder (Hydrargyium cum Creta). Pulv. Ipecac, and liquid extract of Taraxacum, are perhaps the best. The indication of amendment is the restoration of the natural appearance of the stools. The following powder may be recommended for children.

℞ Hydrarg. cum cretæ	...	...	gr. i.
Rhei Rad. pulv.	...	...	gr. iss.
Ipecac. Rad. pulv.	...		gr. ½ to gr. ¼
Bismuth. Subnit.	...	...	gr. i.
Pulv. Aromatic.	...	...	gr ½
Sodæ Bicarb	...		gr. i. misce.

fiat pulvis, ter in dies sumendus.

A mixture of equal parts of black pepper, ginger and cinnamon, make a very good aromatic powder. Hepetalgia, or chronic pain of the side, is a chronic complaint, characterized by severe pain in the side and region of the liver. It is peculiar to females from the fifteenth up to the thirtieth year of age. It is extremely tedious and difficult to cure, recurring often with unconquerable obstinacy for a series of years, until some change in the constitution brings with it a natural cure.

From its leading symptom, it received the appropriate name of hepatalgia; but as the seat of pain is often on the left side of the body, that of laterodynia is perhaps more applicable. Of its intimate nature little or nothing is known with certainty. That it is not of an inflammatory character may be inferred from its duration, from the absence of constitutional disturbance, and from the small benefit treatment affords. Some pathologists consider the affection as of an irritative kind. We have often been inclined to view it as depending in some degree upon a distended state of the gall-bladder.

To this opinion we are led, first by the circumstance of its occurring frequently in young women of sedentary occupations or of inactive habits; secondly from its being sometimes accompanied with a waxy or sallow expression of countenance, analogous to that which occurs in jaundice; and thirdly, from the benefit afforded by such medicines as excite the torpid action of the liver and its ducts. We are well aware, that it is also a frequent complaint with young women who have over-exerted themselves, and the left side is perhaps as often the seat of pain as the right. It will therefore be more consistent with sound pathology to consider this affection as depending upon a a distended state of the vessels of the liver, spleen and neighbouring parts. It is sometimes accompanied with symptoms, which indicate irritation of the urinary organs, produced by gravel or the passage of a calculus, along the ureter into the bladder. In many instances, it will be found to concur with a deranged, or perhaps completely obstructed state of the menstrual function. Costiveness is an almost invariable attendant upon the disease, and not unfrequently the most acting purgative medicines fail of their accustomed effect.

Treatment—This complaint though very distressing is not dangerous. When the pain is very urgent, relief is attained by the application of hot fomentation to the side, of sinapisms, and of anodyne liniments. Occasionally it is necessary to place the patient in a warm bath, and a full dose of chloral hydrate or nepenthe given every second or third hour, according to the urgency of the symptoms, but opiates should not be employed until the lower bowels have been freely emptied by a warm water enema, which of itself will generally afford considerable relief. Purgative medicines are indispensable in the treatment of this affection, the daily use of some aperient, such as Soda phosphus or the liquor Euonymin and Cascara Sagrada should be directed. In some cases, the complaint appears to be altogether a nervous affection, and is relieved by the application of a Belladonna plaster, and the internal use of some mild sedative, such as Bromide of Potassium or Succus conii. Galvanism may be tried with some advantage. Much benefit is derived from regular exercise, and change of climate has proved in many instances efficacious, not merely in the relief, but even in the permanent cure of the complaint.

Bilious diarrhœa, or Bilious attack.—This complaint is characterized by the sudden occurrence of severe vomiting and purging. The matters vomited and passed at stool contain usually, in the first instance, substances in a partially digested condition which have been taken as food. After a time, by vomiting and purging a large quantity of liquid is discharged, possessing the characteristic appearance of bile; the colour, indeed varies; it is at times quite green, at others yellow or almost brown, these, however, are the shades presented by vitiated bile, or bile which has been acted upon by the unhealthy secretions during its passage through the alimentary canal. With the vomiting and purging are sometimes associated severe pains in the stomach and bowels; the patient often calls out from the violence of the suffering. Should the attack be a smart one, cramps in the muscles of the limbs and in those of the abdomen come on, and the patient's strength becomes much exhausted. Coldness of the extremities, with a cool perspiration over the surface of the body supervene, and fainting is not unapt to occur. Happily, this form of diarrhœa is not a fatal disease in this country; nevertheless there are unquestionably not a few instances of death occurring from it, when it attacks the old and enfeebled it is most to be apprehended. Attacks of bilious diarrhœa are infinitely more common during summer than at any other season. Heat exercises a remarkable influence over the functions of both liver and bowels. Every one knows how common in tropical countries are affections of these organs. We see evidence of the same in the frequency of attacks of biliary derangement, and especially bilious diarrhœa, during summer, and more particularly if the season be unusually warm. Besides the influence of an exalted temperature, or the accidental exposure to cold after the continuance of the former for a time, in determining attacks of bilious diarrhœa, it will very generally be found that some error in diet has been committed; the drinking of acid wines, ciders, or other beverages, or partaking of sour or unripe fruit in many instances may be ranked as the exciting causes of the malady, and it often occurs in persons just landed from a sea voyage.

As to the treatment of bilious diarrhœa most physicians are agreed that the diluent plan pursued by SYDENHAM, is in the great majority of cases, the safest and most proper. The employment of purgatives, on the one hand, or of astringent remedies on the other, is generally regarded as inadmissible. In the very earliest stage of the disease, and more especially if it has distinctly followed some error in diet, the former plan may be adopted; but the probability is, that the remedy employed, whatever it is, will be speedily rejected. If during a summer season, specially an unusually hot one, a person be suddenly seized with bilious vomiting and purging, accompanied by severe pain in the stomach and bowels, cramps in the limbs, and succeeded by a sense of faintness and exhaustion, let diluent drinks be administered, soda water, barley water, or weak chicken broth (the latter was strongly recommended by SYDENHAM); this may be taken by the mouth, in small quantities at a time; and it is surprising how much relief their administration affords. "This method of diluting the humours," says SYDENHAM, "is much safer and shorter than the common practice of evacuants and astringents." Ice, in such circumstances, is often a grateful remedy, it tends to repress the most uncomfortable feeling of nausea, and has all the good effects of a diluent. If, notwithstanding this plan, the symptoms continue, and there be any marked evidence of prostration of strength, which is always to be apprehended, then an effervescing draught with ten or fifteen drops of Tinct. Opii every hour, for two or three doses, and some times a dose of chlorodyne, answers. When the powers of life are waxing faint, when the pulse begins to grow feeble, still more if it flickers, when the surface of the body becomes cool or cold, if hiccup, at such a time a most unfavourable symptom occurs, then stimulants are to be given; and of these the best is brandy, warm brandy and water. Suit the precise strength of the mixture to the patient's taste, but let it be fairly strong. When thus seriously affected, the patient must not only be confined

to bed, but permitted to move as little as possible; the head kept low, so as to obviate the tendency to syncope. A good application at this early period of such cases is a sinapism over the stomach and bowels, or hot bran in a flannel bag, or a hot fomentation of flannel with a little oil of turpentine sprinkled over it. Friction with the hand or any stimulating liniment, will tend to relieve the cramps of the limbs; and, if they are very severe, the application of a ligature or light bandage round the limb and above the seat of cramp, may serve to arrest them altogether. From severe attacks of bilious diarrhœa recovery is often very slow; let this be kept in mind; and, above all, let no article of food, but what is safe, easily digested, as well as nutritious, be administered, till convalescence is far established.

Disorders of the liver are far more common in tropical than temperate climates, and there is little doubt over-indulgence in alcoholic stimulants, and too rich a diet, together with high temperature and malaria, account for their greater frequency.

INCREASED MORTALITY FROM FEVERS IN THE CITY OF MADRAS.

By James Harris, L.M.S.
Medical Practitioner, Madras.

Dr. W. G. King, our Sanitary Commissioner attributing the increased mortality from fevers in Madras to the subsoil water, which was criticized in the *Record* some time ago, reminded me of an incident in my practice. I was called to attend on the daughter of an old Anglo-Indian of Madras, for enlarged spleen. As a resident for nearly sixty-five years, he said with authority, that before the introduction of pipe-water, cases of malarial fevers were unknown in this city. I was at once convinced of the truth of this statement by bringing to memory, the fact of hardly ever seeing in the general hospital a genuine case of pronounced malaria with the classical symptoms, said to have been admitted from the city itself about ten or fifteen years ago. We students used to seek for the origin of the poison in the wilds of Cudappah or Kurnul or in some insignificant up-country villages.

The scene is changed. The then Black Town of Madras is blacker to-day and exposes a dark and horrible picture even to a casual observer.

Several pregnant women have been seen with spleens too large to admit completion of gestation, children, even infants are found with spleens and livers occupying their whole abdominal capacity. Pale yellow youths with attenuated extremities often present a pitiable sight. Advertisements in every medicine vendor's shop are glaring with invitations to obtain ague mixtures and pills.

Could this transformation be due to the magic effect of of feeding our innocent city with the philanthropic pipe-water introduced from a distant red hill?

Slow to work, too ready to enjoy, how the Madrasee is able to keep his bangles of gold and dazzling ear-ring has been always a puzzle to me. He bathes regularly, he washes his clothes, he waters his garden, deluges his forefather's house regularly every day with an abundant supply of water. In short like a mermaid he is always in the water. Want of thrift and wanton extravagance are his inborn qualities.

It is astonishing how his loving inclinations vanished when he depended for his resources on wells and indirectly on the activity and whims of his females. The city is deluged all at once with water, though in pipes. He wants taps at the main door, in his yard, in his kitchen, in his latrine, in his first floor, in his second and with the help of a pump, an equal number in his third. The absurd extent to which a Madrasee could waste the municipal water is seldom realised unless seen by one for himself.

The city is situated in many places below the sea-level and the various undulations instead of collaterally blending into a valley and inclining towards the sea, form isolated lakes defined vividly on a rainy day. In several places in the city there is subsoil water as indicated by the local wells within a very few feet of the surface. And this water as indicated above is almost stagnant, its increase and decrease are mainly influenced by rain, droughts, evaporation.

I will divide Madras into two periods:—Antideluvian or well water period, and deluvian or pipe-water period. We see a few engines pumping away the overflowing of sewers in a few corners of this very vast city; and the sanitary heroes, and the city fathers profess themselves satisfied with the result. These energetic engines which work day and night, instead of decreasing the subsoil water, only prevent the ill-laid roads being flooded by the stinking sewerage. Insufficient drainage together with the disproportionate inflow of pipe-water, added to the periodical down-pour of rain keeps the subsoil water at its highest level.

Whereas, in the antideluvian or well-water period. (1) The absence of the pipe-water and (2) the constant use of well-water for all purposes tended to keep the soil dry by lowering the water level.

Thus we see that there is a decided increase in the subsoil water in a city topographically unfavourable to the introduction of effective drainage. Has this increase in subsoil water anything to do with the increase of fever. I must emphatically say with Dr. King, yes.

To confirm my statement I will not go beyond clinical facts. The most important of these being the striking distribution of cases of malarial fevers along the lowest levels of the city. Starting from the sea, if one were to walk across Black Town towards the west, he cannot but be struck with its marvellous undulations and the most ordinary observer will be naturally inquisitive to know what effective drainage the city has adopted.

The area indicated is a bed of malarial germ. To live in its vicinity is to find an early grave from enlarged spleen In some homes as many as ten and eleven have died from the same cause. Similar localities are numerous. In all such places you will find a sluggish drain left to the mercy of the finishers' diurnal visits and the engine's pumping capacity.

As another important cause for the increase of mortality from fever may be mentioned the fact of the alarming increase of population. In houses fitted for a

[illegible] in [illegible] An [illegible] of [illegible] in [illegible] and [illegible] usually draw [illegible] of an alarm[illegible] population [illegible] city, leaving behind them first class institutions [illegible] climatically in a better, and [illegible] in an equal condition to any college in Madras; actuated by no other idea than an impression that studying in a college in Madras facilitates passing, as the examiners, in majority of instances, are from some of these colleges. First grade colleges like those in [illegible]vandrum, Kumba Conum, Rhajumandry are gradually becoming deserted. Besides depriving the population of Madras of their legitimate share of air and room, they increase the rent. The students themselves in many instances become complete wrecks. Instead of [illegible] these youths by encouraging them to drift into the city, would it not be better to encourage the staff in the aforesaid colleges, and to draw largely from them for examiners every year? Every efforts should be made to discourage the conversion of this already unfortunate city into a deplorable death-resort, by coaxing the population to leave it largely, by increasing the trading activity of other cities and transferring educational centres to healthier climes.

Another misfortune to Black Town is the rapid erection of high edifices on its windward side. In some instances they completely obstruct the breeze and in the immediate vicinity of these buildings in the south-eastern corner of Black Town, there are a few streets which are dreaded as traps for human life. I know of 5 deaths from spleen in one of these streets within a year.

The erection of a public latrine by the Municipality in the Esplanade, is a sanitary error. The stench that emanates from it is a smart whip to the pedestrian and the equestrian alike.

The majority of the houses in Madras are now very old, sixty or seventy years; the walls, the floor and almost every portion of these houses absorb moisture and are unfit for habitation. The Municipality should insist upon such houses being sanitarily restored. In some houses cholera repeats itself in every epidemic with astonishing accuracy; and from many disease is never absent.

The admixture of sewage with pipe water is a serious contamination and therefore an important factor, in increasing diseases under the head of fever. I was surprised to see a pipe that was runing across a drain leaking when the drain was particularly dry and I made this an occasion for some interesting observations. The pipe led to a large factory equipped with pumping machines and every time the taps and pumps were closed, there was an outburst in leakage, on the other hand the opening of the taps and the pumps not only completely arrested the leakage, but enabled the pipe to take in a large quantity of [illegible] water.

What about the [illegible] Cooum, the [illegible] block of many a [illegible]. How a [illegible] of sewage of [illegible] city, under the assumed name of a river, can be [illegible] by [illegible] at the [illegible] of the nineteenth century, is a mystery. The open drainage system has converted the city of Madras [illegible] by five (5). The rich and [illegible] a peculiar pleasure [illegible] houses and [illegible] in their [illegible].

Another important [illegible] of fever, is the indiscriminate statistics [illegible] supplies by the help of the ignorant [illegible] citizens, by [illegible] several [illegible] of fever.

It will expand this article beyond [illegible] to travel over more ground [illegible] Charlatans, Quacks, Phena[illegible]tin, Antipyrin, and want of regulations to protect private life, all [illegible] help in swelling the list of those that [illegible].

In conclusion I must say that there is an unfortunate tendency in every one to hold the Municipality as entirely responsible for everything that goes wrong in the city. Suppose the Municipality represent the head of the giant Sanitation, and the citizens his members, and if the head is quite alive to all the dangers of [illegible] while the members lie paralysed, indifferent, and slothful, what benefit is there? From the ranks of the most educated Hindus garbed in gown and hood, I can produce men who believe that small-pox and cholera are the angry manifestations of a displeased goddess. There is almost in every street a devil-dance in the time of an epidemic and not the slightest notice is taken of the cleanliness of their homes or their streets. Unless the citizens are alive to the importance of sanitation what can the Health Department which I see is actively engaged in purifying the city, with their new active Health Officer, do? He ever helps those who help themselves.

NOTE.—In Dr. Harris' welcome contribution to the subject of the great mortality from "fevers" in Madras, the writer we fear [illegible] both the point of Dr King's Sanitary Report, and of our criticism of it. Dr. King maintained that *fluctuations* in the subsoil water level were responsible for the excessive mortality, and gave a table which he said, "proves that this connection between sub-soil water *fluctuations* and prevalence of fever exists."

We on the other hand proved from his own table that, using the word in its usual sense, *fluctuation* had nothing whatever to do with it.

Our correspondent appears to think that a high subsoil water in Madras is a cause of the excessive mortality, it may surprise him to hear that Dr. King held the opposite opinion. He says, "Madras is likely to be healthier when a high subsoil water level prevails than when any marked depression occurs."

We hope Dr. Harris will do us the favor of reading Dr. King's Report and our criticisms (to be found in the issues of February 1st and 15th, 1896) over again.—(ED., I. M. R.)

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REMARKS ON THE SURGICAL TREATMENT OF CATARACT BASED ON SEVEN HUNDRED AND THIRTY CASES OF EXTRACTION.*

BY ERNEST F. NEVE, M.D., F.R.C.S., Ed.

Surgeon to the Kashmir Mission Hospital.

General results.—Successful 677; failed 36, left hospital, result unknown 14. In the last 200 cases the percentage of failure has been reduced from 6 per cent. to 3½ per cent.

An analysis of these results and of the causes which have produced this marked improvement, shows that:—

(1). Careful selection of cases is the most important factor of success.

(2). Hardly second [illegible] is the application of the principles of antiseptic surgery. Indeed, the selection of cases involves a somewhat wide [illegible] of these very princi-

* [illegible] the [illegible] by my brother, Mr. Arthur Neve, F.R.C.S., Ed.

ples. It is [illegible] to [illegible] asepfic in [illegible] sense. But we can [illegible] many of the conditions and much of the [illegible] septic organisms grow and multiply, and [illegible], by attention to our fingers and armamentarium, absolutely avoid introducing concentrated sepsis.

The importance of healthy conjunctival and lachrymal sacs can hardly be over-estimated. Unfortunately many patients who present themselves for operation *have* very unhealthy conjunctival sacs. Thus cataract patients have come to us suffering from ectropium, entropion, blepharitis, trachoma, pannus and a variety of forms of conjunctivitis. If the surgeon consider only his own reputation, he will eliminate all cases of this kind. But I think his aim in selection should be, not so much to reject, as to subject cases of this sort to such preliminary treatment as shall give the patient a fair chance. This may entail some sacrifice. No doubt the number of failures will increase. But on the other hand, many patients will obtain vision who otherwise would have been condemned to hopeless blindness.

Of 32 cases of trachoma, in 20 the result was good, 6 fair[†], 5 poor, and 1 not improved. There were 133 cases in which the eye was irritable, watery, red and gummy in the mornings or showing other signs of conjunctivitis. Of these the results were 86 good, 21 fair, 15 poor, 10 not improved. Most of these underwent preliminary antiseptic treatment with solution of Nitrate of silver, followed by daily repeated instillations of zinc sulphate or boracic lotion. But the percentage of failure is high. Increasing care and experience tends to lower it somewhat. Thus in our last 200 operations, out of 62 cases with conjunctivitis there were 4 failures only.

Next to the influence of selection and preliminary antiseptic treatment, no doubt rigid sterilization of instruments, dressings etc., is most important, just as important as in general surgery. For the first 530 cases our routine was to place all instruments in 1—20 carbolic lotion and transfer them immediately before the operation to a saturated solution of boracic acid. For our last 200 cases we have as a rule boiled all instruments, except the knife and tortoise-shell spoon which are placed as before in carbolic lotion.

Atropine and eserine lotions are prepared with $\frac{1}{1000}$ perchloride of mercury lotion. The cocaine solution is freshly prepared for each case. Salalembroth wool and for deep dressings the double cyanide gauze are used.

The surgeon's fingers should also be rendered aseptic. The room should be free of dust, above all of the dust of septic discharges. For this reason cataract extraction should not be done in a room where out-patients are seen. With these precautions the danger of septic inoculation from without is practically excluded.

Next in importance as affecting results, I should place the condition of the eye with regard to the presence or absence of the remains of previous disease. Former iritis exercises a peculiarly prejudicial effect. In our last 500 cases I find that we had 12 in which there were signs of [illegible] iritis, varying from cases of immobile pupil with extensive adhesions to the lens to those in which there are a few posterior synechiae. Any improvement obtained in the worse type of cases of this kind may be regarded as quite a surgical triumph. I remember one case, in which even after a successful wide coloboma obtained by a preliminary iridectomy, it seemed doubtful, whether I should be able to extract the lens, and yet this presented no insuperable difficulties and an excellent result was obtained. In the remaining 11 cases the result was, fair 5, poor 5, not improved 1.

How far is it worth while to extract cataracts associated with glaucoma? If mature, the removal of the lens is advantageous. Probably a previous sclerotomy is wise in order to diminish the tension and risk of vitreous loss and hæmorrhage.

In three cases of cataract and glaucoma, the result was poor in every instance. In seven cases of deep seated disease, retinal atrophy, choroiditis, etc., the results were, 3 not improved, 4 poor.

With regard to the actual operation of extraction, the points which come up for consideration are (1) the incision, (2) iridectomy, (3) capsulotomy, (4) accidents.

(1). *Incision.*—In our last 500 cases, Von graefe—367, modified flap, 108, small 171, below, 6, irregular 2.

If too peripheral, the danger of vitreous show is greatly increased. There is a zone just within the corneo-sclerotic margin where the iris is especially apt to prolapse. In the modified flap operation which is further from the periphery, this accident is quite rare.

(2). *Iridectomy.*—In 500 cases, this was performed 371 times In 32 of these it was done some days before the operation as the eyes were doubtfully healthy. I regard this preliminary iridectomy as a valuable precaution. But it is not quite free of risk. In one unhealthy eye, it was followed by panophthalmitis. In 129 cases, no iridectomy was done. It is interesting to note that of these in 10 there was subsequent prolapse, 7 incarceration, 10 adhesions to cicatrix, and 11 sharp iritis followed in 6 cases by total, and in two cases by partial occlusion. While the excellence of the result in successful cases is most gratifying, this increased liability to prolapse is just the weak point of the operation without iridectomy. No doubt the patient is sometimes to blame, but when the iridectomy is omitted, it seems to me, the surgeon can never be certain that he will not find a prolapse at the first dressing. The danger of occlusion appears to be also increased.

(3). *Capsulotomy.*—The attempt to extract the lens in its capsule is nothing new. The names of RICHTER-TECHER and MACNAMARA have long been associated with this. Recently MALRONY of Amritsar and others have strongly advocated and practised extraction without iridectomy or the use of the scoop, by a rather large semilunar incision below.

The amount of force required and the large size of the incision appear the chief objections. The frequency of vitreous loss is bound to rise. We have performed the operation in 19 cases. In no less than 7 there was a vitreous show. This seems to me prohibitive. I have also seen (elsewhere) a case of cyclitis following this operation. This may however have been a case of good and not proper luck.

[†]In [illegible] [illegible] propositions[illegible]:

Fair vision ... finger counting with [illegible] at less than [illegible].

Poor vision ... finger counting at less than [illegible].

[illegible] it [illegible] Under [illegible] the patients by [illegible] movements and disregard of in- structions may render the [illegible] unavailing. In un- steady patients it is better to abandon [illegible] and give chloroform at once. In our last 500 cases, in 5 there was sharp haemorrhage into the anterior chamber, then there were three cases of detachment of the iris. In one, the patient moved the head with a jerk as the iridectomy was being performed and the whole circumference of iris came away. The operation was not proceeded with. In two others the iris was very friable, and was partly detached by the point of the knife. In 46 cases altogether, there was vitreous show or loss. In 6 of these, there was a rush the moment the incision was completed; of 9 cases in which the scoop was used, in 5 there was vitreous show, of 14 cases in which the lens was hooked out, in 7 there was vitreous show. As already mentioned in 7 out of 19 cases, in which it was attempted to extract the lens in its capsule, there was vitreous show or loss. On the other hand, the omission of iridectomy, decidedly diminishes the risk of vitreous loss, but then unfortunately it increases the danger of prolapse of the iris.

In one case of fluid vitreous loss with hæmorrhage into the anterior chamber, the lens became dislocated backwards and the operation was not completed.

It is difficult to obtain a complete list of inflammatory sequels. I fear many cases of slight iritis, adhesions to the cicatrix, etc. have escaped record in our notes.

In our last 500, as nearly as I can make out, they were as follows: Panopthalmitis 5. Septic infiltration or sloughing of cornea together with iritis, 3. Iritis 60, resulting in 13 cases in complete, and in 6 cases in partial occlusion. Irido-cyclitis one, subsequent glaucoma about 5.

Summary.—(1) Careful selection of cases is the most important factor of success.

(2) Hardly second to it is the employment of scrupulous antiseptic techinique.

(3) A large percentage of eyes, the conjunctival sacs of which are in a doubtful condition, can nevertheless be operated upon with success after careful preliminary antiseptic and astringent treatment for days or weeks.

(4) Under such conditions however, naturally, the percentage of failure rises sharply.

(5) But the measure of success attained, amply justifies the additional risk.

(6) Previous iritis has a particularly prejudicial effect on the results.

(7) The omission of iridectomy, while producing excellent results in the majority of cases, does undoubtedly increase the risk of prolapse of the iris and also of occlusion. On the other hand, the danger of vitreous loss is diminished.

(8) The attempt to extract the lens in its capsule is so frequently attended with vitreous loss, that it should be restricted to cases where the [illegible] is small.

(9) As in all [illegible] operations, the [illegible] extraction with iridectomy in the [illegible] and in the long run gives the best average results.

[illegible]

MENSTRUATION ARRESTED FOR SIX YEARS; VICARIOUS MAMMARY SECRETION AND OBESITY: CURED BY THE INTRA-UTERINE STEM IN FOUR WEEKS.

By James R. Wallace, M.D., [illegible]

Fellow of the Obstetrical Society of London, Formerly Resident Surgeon to the Eden Hospital for Women and Children, Calcutta.

Mrs.————, an Anglo-Indian lady, [illegible] years of age, one of a family of six children, two of whom are obese and three are slightly built. She is one of the stout ones. Her parents are both stout. She began to menstruate at 12, and was of spare body at that time. She was quite regular in her courses, both as to time and quantity. She married at 23. Her husband stayed with her 8 months and then left her on the plea that they were not rightly mated sexually. She was sexually impotent. She did not conceive. She menstruated regularly during the first eight months of her marraige, that is, while her husband lived with her; but with his departure in 1892, she ceased to menstruate. At each subsequent month for 4 days, corresponding with her catemenial epoch, both her mammary glands became swollen, hard, painful and full of milk, which poured away freely from both breasts. It diminished after two days, and quite stopped on the fourth day. She suffered from no pain about the pelvic organs during this period of vicarious "menstruation," and beyond the tenderness produced by this periodical mammary turgescence, her health suffered in no way whatever. This regular change began with the "period" due after her husband's disappearance, and continued up to the time she consulted me in February 1898, *i.e.*, for six years nearly! Another marked physical change which was concomitant with the stoppage of the regularly menstrual flux, was the rapid development of obesity. She weighed 7 stone at her wedding in 1892, and had reached the tidy figure of 17½ stone in February 1898, when I weighed her. Her appearance at this time was one of perfect health. She presented the picture of a bright, energetic, well-fed, contented woman of 30, and was perfectly robust and healthy complexioned. I was called to see her in February, 1898 for a sudden attack of catarrhal fever. Her temperature had gone up to 103, and she was delirious and suffering with a deal of pain and tenderness about her hypogastrium. I heard the history of her life, but did not feel convinced at the time that the febrile disturbance was in any way connected with her strange menstrual experiences. With diaphoretics and sedatives, the acute trouble passed off, but the uterine distress continued, and with it, the usual mammary engorgement and lacteal secretion. With such a remarkable and characteristic history of functional generative disturbance, I surmised that the present unusual symptoms were connected with undue exaggeration of uterine efforts to obtain menstrual relief by the natural channel. I therefore suggested the use of an intra-uterine stem, which was introduced on the 25th February. This operation was followed in twenty-four hours by a discharge of blood per vaginam, which

lished for three days. Four, [illegible] other attack of fever with high [illegible] and mammary turgescence, which however was [illegible] than usual, and subsided within [illegible] Every month since then, the catamenia have come with perfect regularity with an interval of four weeks, lasting freely for four days, without febrile disturbance. The mammary engorgement has steadily decreased each month, till now there is scarcely more than a sense of mere fulness, without tension or pain, and absolutely without the formation of any secretion. Another very remarkable and very welcome change to the patient, is the lessening of her bodily weight, for this has lost more than two stone within the past six months. No medicines have been given, and every beneficial change that has resulted, must be attributed to the use of the intra-uterine stem, which was kept *in situ* for six weeks only.

Remarks. This case is remarkable in emphasising the strange incidence of a pathological arrest of a physiological function, dependent entirely upon the withdrawal of sexual stimulus. Such a pathological phenomenon is all the more remarkable as occurring in a woman, in whom the sexual appetite,—as guaged by the entire absence of sexual orgasm,—was so completely in abeyance.

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A CASE OF CEREBRO-SPINAL FEVER.

By Colonel R. C. Sanders, M.D., F.R.C.S., I. M. S.
Surgeon Superintendent, Mayo Native Hospital, Calcutta.

The patient named Ganoda, aged 12 years, a Hindu, resident of Sobhabazar, Calcutta, was admitted into the Hospital on the evening of the 10th September 1899.

Condition on Admission:—The patient was a fairly nourished girl; completely unconscious, pupils dilated; conjunctival reflex absent, respiration hurried, pulse soft, small and frequent, 110 per minute, and respiration 30 per minute, skin hot and dry; Temperature 103·4. There was lateral deviation of the head and the eyes to the right; spasmodic contraction of the muscles of the hands and feet was marked, abdomen was retracted. There were no convulsions, nor tetanic spasms.

Liver and spleen were not enlarged. Tongue dry and furred.

Heart sounds weak and normal. Respiratory murmur normal.

There was a swelling of moderate size of the right Inguinal region but the part was not tender.

There were no eruptions anywhere in the body.

History of the Case:—Could not be accurately obtained, the girl was stated to have been suffering from fever of a remittent type for the last three weeks. and became unconscious, accompanied with the symptoms above described for the last five days. Previous to the present illness she was in good health.

Subsequent Progress:—The temperature next morning rose to 103·2, pulse small, thin, and frequent; and 125 per minute; Respiration hurried and irregular; Bowels not moved: *Tache cerebrale* was not elicited; twitching of the small muscles of the hands and feet occurred; lateral deviation of the head and the eyes continued: the swelling of the inguinal region remained the same.

The patient gradually became worse. Respiration laboured and irregular; She became more comatose; pulse scarcely perceptible at the wrist; died in the evening at 8 P.M. on the 12th September 1899. The final termination of the case was preceded by a rise of temperature to 107°.

Treatment.—The patient was in Diaphoresis with Pot. Bromide &c., as well as on stimulants of all sorts. Ice was applied to the head.

Diet was milk and sago, chicken broth. The administration of medicines and diets was conducted with difficulty as the patient refused nourishment.

Extract from the *post-mortem* report of the case:—

"The *post-mortem* examination was performed 10 hours after death.

"Rigor mortes, was well marked:—In the abdomen, no excess of fluid in the peritonial cavity was noticed, liver and spleen were congested, kidneys presented no abnormality. Patches of congestion and ulcerations were noticed in ilium as well as in the large intestine; small tubercular ulcers were found on the lower and of the large intestines; mesentric glands were enlarged.

In the chest—There were adhesions between the visceral and parietal layers of the pleurae of the left lung. The right lung was free from adhesions. Few scattered tubercles were found in the lungs.

In the Heart.—No abnormality was detected.

In the Brain.—The membranes were much injected. There were adhesions of the membranes in some situations especially at the surface and posterior aspects. There was an abundance of lymph on the convexity of the brain. The ventricles of the brain contained an excess of serous fluid. There were about 6 drams of fluid in the base of the skull. The membranes of the spinal cord were also considerably injected, especially at the posterior surface, and in the lumbar region.

Remarks.—The case was brought in in a low condition, and was under observation in the hospital for about 26 hours. The history of the case was not accurately obtained. The condition of the patient; the symptoms above described; the *post-mortem* examination exhibits the case clearly.

Cases of this nature are easily mistaken for those of *plague*, from which they should be carefully distinguished.

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ABORTION DUE TO QUININE.

By Assistant Surgeon Balagapal, L.M.S.
Chhatarpur, Bundelkhand.

Mrs. B. aged about 21 years suffered with Malarious Remittent Fever for 10 days. On the 11th day, the temperature came down to normal. I prescribed 5 grains quinine in a mixture to be taken three times a day. After the 4th dose of the mixture the lady, who was in the third month of pregnancy, began to feel pains in the hypogastric region. The pains commenced in the morning, but her friends informed me of them in the afternoon. I at once administered 30 drops of Tincture of Opium with an ounce of water and gave Lit. Opii. 10 drops with a little water half an hour after the first dose. Five minutes after the administration of the second dose, she had five pains consecutively, with very little interval between each. After the fourth pain she called for the nurse and told her that she had aborted.

This case shows that the dose that quinine in any form is not abortive, as quite [illegible] and therefore [illegible] should be very careful in administering this medicine to pregnant women.

Plague Relief Fund.

CONTRASTED CITIES OF THE FUTURE.

BOMBAY AND MADRAS.

I. Bombay.

Within the past month two announcements have appeared in the daily press, which although by no means startling or sensational in themselves, are closely connected with two of the most important sanitary problems which at present face us in India; the questions of the future of Bombay and Madras.

In the first place we read that the Bombay City Improvement Act comes into force from the 9th of November.

And in the second, that the Government of Madras have called upon the Sanitary Commissioner for a report on the late and present evil conditions prevailing in that town, with a view to finding out the cause of the late rapid rise in the death-rate.

It would appear as if disease and death had marked out these two great centres of population as their own: that it should be so, is a deplorable commentary upon the methods of sanitation pursued in India. It takes the wind out of the sails of our boasted progress, and seems to point the finger in scorn and derision at the word *knowledge*, we are accustomed to write so large, as if *ignorance* would be more appropriate to our present blind gropings after sanitary perfection.

Bombay has been in the death grip of plague since August or September, 1896, and has now entered upon its third epidemic. As far as Bombay is concerned this fact overshadows everything else, and draws the attention away from other evils less in themselves but still of great importance.

At the present day when we find ourselves face to face with great outbreaks of epidemic disease, it is the custom for medical experts to point out some special bacillus and declare that it is the cause of all the mischief: in this way their ignorance is cloaked and their conscience salved.

We are told that the discovery of these bacilli marks one of the most important advances ever made in the study of the origin of disease, this may be so, but so far the practical application to the prevention and cure of disease has not made much progress.

We [illegible] to be too often lost sight of, that the identification of the bacillus far from being the *end* of the matter, is in reality only the *beginning*; beyond the bacillus many questions of the greatest importance arise, which are unsolved by the tiniest and most trifling [illegible]

Where has the bacillus come from? What are its [illegible] conditions? What are the circumstances [illegible] it? [illegible] it that certain [illegible] it [illegible] it thus [illegible] between [illegible]

[illegible] to advance the interests of the bacillus; as regards [illegible] conditions are thoroughly understood, it seems [illegible] that the bacillus itself will become a thing of [illegible]

Our knowledge of most bacilli at present is limited to the characters they present in the body or under the artificial conditions of the laboratory, of their habits outside the body we are mostly ignorant, though it is assumed and not without good grounds that filth, overcrowding and other insanitary conditions provide them with favourable environment.

It appears to have required the terrible ravages of plague to open the eyes of the public and of the authorities to the terrible neglect of hygienic rules which, prevailed in the City of Bombay.

The following is a graphic representation of one aspect of this neglect.

"The *chawls* or tenements may run up to several storeys and the unit of construction is a long corridor with rooms opening on either side. In the corridor, either at one end or in the centre, is situated a water tap with bathing platform, and alongside it a latrine with two or three seats. The whole tenement is built round a congeries of these corridors and rooms, and contains from 500 to 1,000 individuals. The only space between each tenement is a gully sufficiently wide to admit a sweeper. In most of the corridors and rooms, either from the absence of openings or from the obstruction of the existing ones, there is absolutely no light admitted and consequently no ventilation.

"The Health Officer informed me, that he estimated that 70 per cent. of the population live in such houses. The corridors, before being taken in hand by the Health Department, were the repositories of filth of all kinds, and it is surprising that the mortality under such conditions has been so small."

Overcrowding, filth, want of pure air and absence of sunshine form an infamous quartette whose potentialities for evil no man can gainsay; but in the present state of our ignorance it would be rash for any one to assert that the plague is dependent upon them and nothing else, or that they alone sin against the decalogue of Sanitation.

In Bombay however, it appears that they have been accepted as the responsible agents, they have been publicly incriminated, and the New Improvement Act is mainly directed towards their elimination; the greatest energy is to be shown in grappling with them, congested areas are to be opened up, wide and airy thoroughfares are to take the place of narrow tortuous lanes, and a new style of dwelling, regular temples of Hygeia, are to replace the squalor of the overcrowded tenements.

But underlying all these things, and underlying the city of Bombay itself, lies a contaminated subsoil saturated by a stagnant subsoil water.

It is [illegible] should turn out, and there are many reasons to believe it will, that this condition of the subsoil is responsible for much of the suffering which [illegible] has undergone, then the new Improvement Act is foredoomed to failure, and the departure of plague from [illegible] does not [illegible] will fall [illegible] [illegible] [illegible]

In that year the total rainfall was 57·6 inches, this year according to one authority 13·19 and according to another 15 inches above the average. By the way it is interesting to note that the Sanitary Commissioner with the Government of India in his 1896 Report says, the rainfall was below the average, but this is of no importance.

In addition to being abnormal in quantity it was abnormal in distribution, it fell in six weeks instead of four months. In June, 23 inches fell, in July 26·4 inches, and in August 20·6 inches; this heavy rainfall flooded with sewage the low-lying portions of the city, through which the polluted streams rushed in swirling currents, leaving banks of mud and sludge behind to ferment or slowly dry and, moreover, the sewage flowed from the sewers on to the streets after each heavy downpour and rushed up the traps and flowed on to the low-lying ground After this heavy soaking the ground took a long time to rid itself of its superfluous moisture and although the monsoon practically ceased in the middle of August, the shady sides of the streets in crowded portions of the city remained damp until the end of August."

All this points to an unsatisfactory state of sub-soil drainage and also to what has often been noticed in connection with the outbreak of other epidemics,—the occurrence of unusual meteorological phenomena.

There are not wanting indications to show that altogether apart from plague, the health of Bombay is not satisfactory. Thus on 13th August, we read in the *Times of India*, that the mortality has been increasing for the last six weeks, that the increase from plague was only 37, while the increase from other diseases was 178. That the total mortality was 655, being 15 excess of the average for the previous five years.

Again on the 27th August, we read the same tale. The general mortality apart from plague is on the increase and what accentuates the fact is that this is a new experience, in view of the tendency of plague to overshadow all other diseases and cause a decrease in their mortality.

It is well-known that there is an invariable increase in the mortality in Bombay during the monsoon months, and it is admitted that this is occasioned by the prevailing dampness, which all points to the urgent necessity of drying the subsoil.

Of all the districts in Bombay the most unhealthy, the most overcrowded and about the lowest-lying is Mandvi, and it is in this district that plague finds its fittest residence, from Mandvi it has never been absent since it first broke out, and from this quarter each of the three epidemics has started.

Is the cause altogether in the above ground conditions as our sapient counsellors would have us believe, or is not the saturated and contaminated soil also responsible for its due share of the havoc that has been wrought?

Of late years the subsoil water of Bombay has been steadily rising at the rate of about three quarters of an inch a year. Eleven years ago it was twelve feet below the surface, this time last year it was only four: two causes have contributed to this result, first, drainage originally insufficient, second the introduction of a plentiful water supply without any means of removing it. In this way a pure water supply instead of proving an unmixed blessing has proved to a large extent exactly the reverse.

The first step to the regeneration of [illegible] a complete and efficient subsoil drainage [illegible] scheme in existence, it only needs to be put into execution; with the soil in its present condition it will be little short of a sin to expend large sums of money in improving the streets and houses.

THE TOXIC THEORY OF THE ORIGIN OF DISEASE.

The address in Medicine delivered at the Annual Meeting of the British Medical Association at Edinburgh, by Professor Thomas Richard Fraser may be justly said to rank with the most important communications that have been made on the subject of the pathogenesis of disease; it should be read and re-read by every one who is anxious to keep abreast of the times, and to understand the complicated problems which at the present day stand in the van of medical progress.

Professor Fraser does not limit himself to a mere summary of the work that has been done, his horizon is much wider, and extends to a vast generalisation of disease with toxins or poisons as the universal cause.

Full of originality and suggestiveness he is not satisfied with presenting to us the intricate questions which are now vexing so many minds, he advances plausible and rational explanations of his own, and gives weighty reasons for differing from those of others; his criticisms, as might have been expected, are lucid and far reaching, and full of hope he gazes into the future with the prophetic eye of a seer and draws aside the veil of obscurity.

While micro-organisms occupy a considerable position in his scheme, he seems to avoid the tendency which disfigures so many present day writers of looking upon them as the be all, and end all, of everything, the absolute *sine qua non*; he is able to look beyond them and treat them according to their merits.

He shows us that there are venoms and poisons as powerful and deadly as any that they can instil, and that many of these originate within the body itself, without their agency, and are a potent cause of disease.

Professor Fraser has long been known as a devoted student of these obscurer poisons, and his authority to speak on these subjects is unassailable.

In the following passage the theory of the toxic origin of disease is lightly outlined.

"It is thereby shown that the disease is not truly a product of the structural alterations which are present, but of a hurtful substance or poison capable among other effects of producing these structural alterations. Similar facts are observed with many ordinary poisons, and an association, highly significant in regard to the production of disease, is thus indicated. Many of the more common poisons produce changes in structure closely simulating the changes of disease, as the peripheral neuritis, anterior cornual degeneration, granular fatty degenerations and arterial sclerosis of lead, the liver metastosis and yellow atrophy of phosphorus, and the fatty degenerations and diffuse sclerotic hyperplasia of the liver, the peripheral neuritis and the atheromatous changes in blood-vessels produced by alcohol. The most [illegible] acquisitions of modern pathology, [illegible] strongly suggested that the structural changes found in many diseases may, after all, be mere manifestations, accidental with

[illegible] which [illegible] the [illegible] of the [illegible] substances."

[illegible] the body [illegible] in a state of health [illegible] substances, that ptomaines and leucomaines are of the chemical nature of the previously known alkaloids which they rival in toxic effects; and that by the toxic influences of substances formed in the processes of disassimilation, the symptoms of cholæmia, gout, rheumatism, uræmia, sunstroke, neurasthenia, asthma, and the idiopathic anæmias receive a sufficient explanation.

And again we are told that auto-intoxication from poisons produced in the intestinal canal is believed to be a patent factor in the causation of insanity.

With regard to the Infectious diseases we are told that the pathogenic micro-organisms connected with them cause their effects mainly by the poisons which they produce; many of these poisons are of extreme and almost indefinite activity, and as in diphtheria and other diseases they are capable of causing structural changes.

Having shown that large numbers of disease producing poisons are ever present in the body, that many substances such as alcohol, tobacco and tea possessing poisonous properties are constantly introduced, and that micro-organisms capable of multiplying and producing large quantities of poison, are always present in the air passages and intestines, he passes on to consider the means of defence which the body possesses against all these enemies.

"A fundamental difference exists," he tells us, "between both congenital and acquired defence against ordinary poisons and that resulting from the action of disease toxins, venoms and such like poisons, in so far that in the former there is not produced in the blood any substance which plays the part of a counter-poison or antitoxin."

Artificial Resistance to Disease.—Into this very important and interesting part of the subject, Professor FRASER enters thoroughly.

In the first place he shows that the results which follow the experimental introduction of the pathogenic microbes of the infective diseases into the system, whether the appearance of the disease itself or the subsequent immunity, are due, not to the microbes themselves, but to the toxic substances produced by them; also that the blood serum of animals thus protected or rendered immune, though itself destitute of poisonous properties, when introduced into non-protected animals confers upon them a greater or less degree of immunity.

"These remarkable results," he says, "irrefutably demonstrate that infectious diseases are in their essence poisonings."

Much has still to be learned regarding, (1) the nature of the process whereby protection or immunisation is obtained; regarding (2) the origin of the protection producing substance or antitoxin, and regarding (3) the [illegible] in which they act as curative or therapeutic agents.

To explain the first three [illegible] have been put forward [illegible] brought about by the [illegible] producing [illegible] (3) that [illegible] body [illegible] for their growth and vitality, [illegible]

[illegible] (3) the [illegible] theory of [illegible], [illegible] of [illegible].

The theory, he suggests, is that there is a continued formation of immunising material [illegible] in the body so long as immunity exists. This immunising material he thinks may be produced by an attenuated form of the original bacillus of the disease "so altered that its capacity for manufacturing poisons is weakened or destroyed while its disease preventing properties are retained."

In support of this he states that experiments have shown that both immunity and poisoning are equally dependent upon a soluble substance produced by the micro-organisms; it is necessary to distinguish clearly between these organisms and the substances they produce, for while these substances alone are capable both of causing the disease and of inducing a large degree of immunity, there is this remarkable distinction that the immunity brought about by these substances, is invariably of very short duration, 5 to 7 days with diphtheria toxin and only a few hours with serpent venom; while the immunity resulting from the introduction of the micro-organism may last a life time as for instance in small-pox.

"It appears to me impossible to explain these contrasting facts on any other supposition than that in the instances of prolonged immunity, successive supplies of the antitoxin of the disease must be furnished to the body during the time that protection continues."

Professor FRASER considers such phrases as "individual and racial peculiarities," which are so largely made use of to explain anomalous outbreaks of infectious disease, the varying severity of different epidemics, and the many grades of intensity witnessed in different people etc., as unsatisfactory; all these peculiarities he would ascribe to variations in the microbe itself. The *deus ex machina* which he is ready to invoke to overcome all difficulties is, variations in the virulence of the microbe due to the varying conditions of its environment.

THE ORIGIN OF THE PROTECTION PRODUCING SUBSTANCE.

Professor FRASER rejects the explanations founded on a "reaction occuring in the tissues of the body, whereby either a proliferation of leucocytes and the production by them of the protecting substances is excited, or the normal cells of the body are stimulated in such a way that they secrete the protective substance," and produces evidence of their insufficiency.

He prefers to think, "that the protecting substance originates directly from the toxin, or is indeed an ingredient of its complex composition." In support of this he argues that the degree of protection artificially produced in an animal is proportional to the total quantity of toxin or venom introduced, rather than to the amount of reaction produced in the animal.

This leads up to the following suggestive passage:—

"The question is not only of scientific interest, but it has also a practical bearing. The manufacture of the immunising substance is attended by much difficulty. A satisfactory antitoxin can rarely be obtained until a tedious process, extending over several months, has been followed. Anti-pneumococcic serum requires so long a time as six months, the [illegible] serum of yellow fever from twelve to eighteen months, and the nearest approximation yet obtained to a satisfactory protecting serum

[illegible] toxin [illegible] from existing difficulties [illegible] chemical research could be [illegible] the laboratory, and thus brought into closer relationship with ordinary medicinal substances."

THE SERUM TREATMENT OF DISEASE.

The logical outcome of the toxic origin of disease is its treatment by antitoxins or antidotes. Until lately this was only possible in the few well known poisons dealt with in toxicology; the new antidotes will consist of various antitoxic serums.

A few examples of the efficacy of some of these serums are given here.—

"A dose considerably above the minimum lethal dose of the toxin of tetanus is administered to an animal. Several hours after the administration, when symptoms of tetanus had manifested themselves, the antitoxin of tetanus is injected under the skin, and in a short time afterwards the symptoms of the disease disappear and the animal recovers."

Again with reference to serpent's venom "when this venom in lethal quantity is mixed in a test tube with a small quantity of antivenine, the venom almost instantly loses its toxic power. Further, if the smallest quantity of antivenine required to produce this change after contact for a definite time with a lethal quantity of venom be determined, it will be found that if the time of contact is lessened, this quantity of antivenine is no longer able to remove the toxicity of so large a quantity of venom. When again, venom is injected under the skin of an animal at the same time as, but in a different position from, the antivenine, the quantity of the latter required to prevent death is for the same dose of venom about twelve times larger than when the two substances have been mixed together before they were injected. Such distinctions are difficult of explanation otherwise than by supposing that a combination, chemical or mechanical, is effected between the antivenine and the venom, for they indicate that when the conditions are the more favourable for ensuring contact between the antitoxin and the toxin the antidotal action is more powerful than when the conditions are less favourable for this contact."

Professor FRASER has the highest hopes of the future of serum therapeutics.

"Diphtheria" he says "has had its case mortality from 70 per cent. to 20 per cent., or, according to another estimation, from 40 per cent. to 8 per cent.; hydrophobia has been so far brought under therapeutic control, by means which have not as yet been developed to their full efficiency, that its mortality has shrunk at least from 16 to 1 per cent.; the prognosis of tetanus has been deprived of much of its gloomy forebodings; the cure of pneumonia, of tubercle, of erysipelas, and of septicaemia is on the way of being realised; a [illegible] demonstration has been obtained of the power of [illegible] serum to [illegible] the toxic and lethal [illegible] and the [illegible] small-pox."

[illegible] men being styled members of the I. M. S. [illegible] of this dissentient deputation so [illegible] the common sense of Dr. RICE, that he was induced to consent to the withdrawal of the designation I. M. S. for the Warrant Medical Services, and to recommend instead the cumbersome and offensive appellation of Indian Subordinate Medical Department, for this branch of the Indian army medical staff. The narrow sightedness of Dr. RICE's action is now seen in all its folly and [illegible] for the granting of combatant rank and pure military titles to Surgeons of the I. M. S. stands out as one of the most senseless anomalies of the present day. How on earth can Surgeons of a quasi-civil service be styled Generals, Colonels, Majors, Captains and Lieutenants. The whole thing is as ludicrous as it is absurd, and the folly of this bungling transaction must be credited to the dog-in-the-manger policy of Field Marshal RICE.

Had this robust gentleman exercised a small fraction of his enormous fund of common sense, and had he not been led by the nose by a few dunderheads, he would have incorporated Military Assistant Surgeons as the warrant officers of the I. M. S., the Military Hospital Assistants as the non-commissioned officers, while the units of the Native Army Hospital Corps could easily have been reckoned as the rank and file of a complete and perfect corps. Something of this sort must be done at the present time, or the I. M. S. will figure as the laughing stock of the country. For while many members of the service are making their backs straighter and their heads a few inches taller with the apparent superiority of their position by the assumption of *pucca* military titles, the bulk of their brethren who are in civil employment, feel as utterly ashamed of themselves as the proverbial crow in peacock's feathers. Few Directors-General of the I.M.S., from Fullarton Beatson downwards, have left any impression on the history of the medical service of India for better or for worse, during the course of the past twenty-five years. There is now an opportunity for the present Director-General, a gentleman of exceptional [illegible] and sterling ability, to model the military medical [illegible] of India into something like a harmoniously working machine. At present it stands out as a chaotic [illegible] absolutely without symmetry, devoid of [illegible] lation, and a perfect monstrosity in comparison to the Royal Army Medical Corps. Why cannot we have an Indian Army Medical Corps, comprising the same [illegible] as the R. A. M. C. or why can we not have an Indian Medical Staff Corps constructed similarly as the Royal Army Medical Corps? We have at hand all the [illegible] The I.M.S. could form the [illegible] the Military Assistant Surgeons [illegible]

[illegible] remove [illegible] and [illegible] given to [illegible] I. M. S. To prove that the suggestions [illegible] put forward are quite in order with the [illegible] of justice that actuated the India Office, [illegible] of purely military rank to Indian Army Surgeons, we find that the British Government was [illegible] to admit the claims of Commissioned Military Assistant Surgeons to a share in the purely military designations of the I. M. S. and has granted them similar rank and titles. No more effective argument could be adduced to prove that the I. S. M. D. is a branch of the I. M. S. and that its members are units of the same service. To abolish once for all the offensive and degrading title of *subordinate* from the military medical services of the country, would be not only a gracious act that would remove a well grounded grievance from a very large section of the military medical servants of the Government, but it would also harmonize the medical machinery of the Army in India with that of the British Forces, and efface the present ludicrously anomalous position of having surgeons with military rank and *bona fide* military titles as members of a quasi-civil service instead of a well designed military corps.

———:o:———

THE TEACHING OF SURGERY IN THE CALCUTTA MEDICAL COLLEGE.

THE announcement in the Government *Gazette*, that Professor JOSEPH O'BRIEN, M.D.R.U.I. and F.R.C.S. Edin., Lieutenant-Colonel, I.M.S. has retired from his appointment as Professor of Surgery in the Calcutta Medical College and as First Surgeon to the Calcutta Medical College Hospital, is a fitting opportunity for raising a discussion on the subject of his successor in the important office of Teacher of Surgery in the Calcutta University. That the College Hospital as a clinical institution, that its operation theatre as an arena for modern operative aseptic surgery, are behind the times, are facts too transparent to be denied. That modern surgery, either in principle or in art, is not taught in Calcutta as it should be taught, no one who has recently visited the hospitals of Great Britain, America or Europe, will hesitate to question for a single moment. Calcutta, in the matter of surgical teaching, is almost two whole decades in the background as compared with the smallest and most insignificant London hospital. Viewed from the light of experience during the past ten years of stagnation, the rapid advance of surgical teaching everywhere outside of India, reflects the gravest censure upon the educational agencies of this country. For nearly twenty years, surgery both in art and principle, has been presented to our thousands of Indian students in a most slip-shod fashion. The cause of this discreditable drawback is not far to seek. Appointments have been made [illegible] men [illegible] appointments. [illegible] is, that [illegible] have found [illegible] good surgeons [illegible] from the I. M. S., but they have just as [illegible] surgery [illegible] far as [illegible] surgery, [illegible] appli-

[illegible] every [illegible] College and Hospital, are due [illegible] teaching in the [illegible] of surgery during the past few years [illegible] surgeons were not even fair anatomists, while [illegible] could not be credited to their manipulations, [illegible] were wanting because the teachers had no time for their official work, the best portion of their [illegible] hours being engrossed with private practice. Hence [illegible] neglect of surgical education in our Indian Colleges. At the present time we feel that a very emphatic and vigorous protest ought to be made against the appointment of any but a skilled anatomist and an accomplished surgeon as well as an experienced surgical teacher to fill the vacancy caused by the retirement of Dr. JOSEPH O'BRIEN. It is no reflection on the otherwise excellent qualifications of Lieut.-Colonel H. D. MURRAY, who though an excellent civil medical officer, has no pretensions either from academic qualification, anatomical or surgical training, or special [illegible] to being considered a fit occupant for the post of Professor of Surgery in the Calcutta University, and First Surgeon to the Calcutta Medical College Hospital.

Dr. MURRAY qualified M.B., C.M. Ed. in 1878. We do not find that he possesses any special surgical qualification, nor are we aware that he has interested himself in the study of anatomy, nor in the acquisition of any special knowledge of modern surgery by undergoing any recent test in obtaining such a diploma as the Fellowship of the Royal College of Surgeons. In Great Britain the possession of the Diploma of Fellowship is a *sine qua non* for admission to a surgical appointment. In India things are different, for we find the Professorship of Medicine in an Indian University, filled by a comparatively junior officer, who has no higher academic qualifications than M.R.C.S. England and L.S.A. London, acquired in 1878. Now we find the chair of surgery to be filled by a gentleman who can in no way claim to be either a first class surgeon or a surgical anatomist.

We have no desire to personally attack any officer of the Indian Medical Service, nor have we [illegible] individuals with the object of ungraciously placing them in a pillory, but we feel that the important responsibilities of medical education in India are being subordinated and sacrificed to the harmful and degrading influences of personal interest and red-tapeism. It is extremely discreditable to those in authority, that the claims of long service and seniority should be made to govern the disposal of collegiate appointments, when nothing but scholarly merit and exceptional professional ability should be the sole controlling criterion of fitness for such promotion. It is time the Indian Universities exercised their right to exclude from institutions affiliated to them, teachers who are so glaringly unfit for their posts. We raise this timely protest against the installation of any but a really skilled anatomist and an experienced operative surgeon into the position of Professor of Surgery to the Calcutta Medical College and First Surgeon to the Calcutta Medical College Hospital, and we beg to [illegible] the Government of Bengal that if it persists in giving the [illegible] appointment to Dr. MURRAY we [illegible] shall continue to expose the injustice of the appointment till a [illegible] change is made, not only in the [illegible] and highest interests of the medical students [illegible] surgical reputation of the Calcutta Medical College [illegible], but also in the [illegible] public [illegible] the College [illegible] surgical treatment.

COMMENTS AND NEWS.

THE INDIAN MEDICAL RECORD AS A WEEKLY JOURNAL

INDIA is without a weekly medical journal. For twenty-five years, The *Indian Medical Gazette* struggled along as it continues to struggle on still, as a Government organ, supported and paid for by State money, in other words by the taxations of a country unwilling to countenance its existence or to justify its support with its spontaneous contributions. The *Gazette* began as a monthly a quarter of a century ago, and continued as such. Were the State feeding bottle withdrawn from this monthly print, it would collapse in an instant. We state these facts to emphasise the injustice of the Government of India and of the Indian Medical Department which tolerate such a one-sided, unnecessary and uncalled for form of philanthropy. We say uncalled for, because an independent journal like the *Record* has, within nine years, won the support of the whole medical profession of the country, and has not only gone through the struggle for existence with the present possession of financial success, but with the security of still greater success in the future, and all this without a brass farthing of assistance from the Government.

The *Record* was launched on the 1st of January 1890 as a Monthly, on 1st of January 1893, it was developed into a Fortnightly, and we hope to convert the RECORD into a WEEKLY on the 1st of January 1899. We commend this proposal to our readers, and we will be thankful to learn their wishes in this matter, before we launch upon an enterprise which will just double our expenses and our labour. We are perfectly prepared to face our share of the heavy responsibility which this change involves, and we desire to know whether our readers are as equally prepared for their portion of the monetary enhancement of their subscriptions, as the conversion of the *Record* into a *weekly* will involve twice the present rates, to be paid half yearly.

In view of this project, we now ask every reader of the *Record* to send the Manager of this journal a post card, *without delay*, stating whether or not he or she would like to see the *Record* become a weekly paper from the 1st January 1899.

SOIL AS A FACTOR IN THE SPREAD OF CERTAIN DISEASES.*

DR. JOHN ROBERTSON begins his paper which deals chiefly with the distribution of Typhoid fever in England, with a few suggestive remarks dealing with the subject generally. These remarks it may be well to repeat, as it appears to us specially important that the opinions expressed therein should not be lost sight of in India.

"During the past few years," he tells us, "renewed interest has been taken by sanitarians in the subject of soils as a factor in the production and spread of certain diseases."

DEFINITION OF THE TERM SOIL.

It is perhaps necessary to state at the outset that the term soil is used in the sense of a medium for the growth of organisms. It therefore includes the surface of a paved court or street, equally with the soil of a grass field, and a privy midden equally with the filth in and around a sewer or drain.

BACTERIOLOGY OF [illegible] SOILS.

It has of course long been well known that various soils contain a very large number of micro-organisms of different species. It has been found, too, that the number varies very much under different conditions, as also do the species of micro-organisms found. What the exact conditions are which favour the growth of different organisms is a subject which requires further investigation. It may be roughly stated that there are a larger number in built soils than in virgin soils. The number varies, too, with the amount of certain organic matters in the soil.

The largest number is found not at the surface, but at a distance of 12 to 24 inches below the surface. An interesting point, too, is that the number of organisms in undisturbed soils rapidly diminishes at a depth of 3 to 4 feet from the surface.

In some experiments which Dr. MAITLAND GIBSON and I carried out, we found that in the case of the typhoid organisms planted at a depth, there was an undoubted tendency to grow upwards to the surface rather than downwards. This appears to be quite distinct from the upward diffusion which has been frequently noted in the case of B. anthrax by means of earth worms. I believe that this tendency to upward growth has a most important bearing on the spread of disease by soils. In my own experiments I found that during the winter months organisms disappeared from the surface soil long before they had disappeared from the subjacent strata, and from these experiments I was led to believe that the deeper layers acted as a sort of shelter during the winter months from which the organism sallied forth to the surface during the warmer months.

CLASSIFICATION OF SOIL INFECTIONS.

Diseases which may be due to specifically contaminated soils in temperate climates may be, roughly, divided into two groups: (*a*) Those in which the specific organisms have a general or wide distribution. (*b*) Those in which the organisms have a local distribution.

It would appear that tetanus, malignant œdema, and the group of pyogenic diseases are examples of diseases due to group (*a*). Typhoid fever, epidemic diarrhœa, cholera, swine fever, and anthrax are diseases belonging to group (*b*). Such diseases as tuberculosis, leprosy, epidemic pneumonia, glanders, rabies, scarlet fever, etc., appear not to be propagated to any extent by growth in soil, whilst dust plays a most important part in their diffusion.

I desire particularly to draw attention to certain features of group (*b*) that is, those in which the organism appears to have a local distribution, and I will take typhoid fever as a type of this group.

THE DISTRIBUTION OF TYPHOID FEVER.

DR. ROBERTSON illustrated the distribution of typhoid fever in England by a series of five quinquennial maps covering the period from 1871 to 1895.

The examination of this series shows that typhoid fever mortality is high in certain districts with the utmost regularity, while with an equal regularity it is low in other districts.

These five maps show the counties in which the mortality was 10 per cent. above that for the whole of England, and it is remarkable how closely they correspond from one five year period to another.

The endemic areas of typhoid are almost always the same, in other words the disease is closely connected with certain conditions of soil.

THE TYPHOID [illegible] IN THE SOIL.

Dr. ROBERTSON next alludes to certain experiments of his, a summary of which was given in the *Record* for May last.

TYPHOID FEVER AND [illegible].

On this subject he says:—

My own experience in the investigation of the cause of nearly 2,000 cases of sickness from typhoid fever goes to

* Paper read before the British Medical Association at Edinburgh.

[illegible] 10 per cent. of all the cases were [illegible] direct infection, [illegible] from the patient. This, I believe, is a larger percentage than is usually [illegible] to this cause. Then water or milk-borne disease accounts for the incidence of typhoid fever in a certain relatively small proportion of cases. I believe that the water carriage of typhoid fever is a very important subject, but at the same time I think that the amount of attention it has received has to a large extent put out of account the relatively much more important subject of dust and filthborne typhoid. In my experience certainly over 80 per cent. of cases of typhoid fever in town districts cannot be accounted for by direct infection or by water or milk carriage of the infection.

Subsoil Water and Typhoid.

Another factor which in my small experience appears to operate is that of ground water level. I have not noticed any relationship between the rise and fall of the ground water and the prevalence of typhoid fever similar to that which has been so ably described by Von Pettenkoffer; but all my observations show that areas, where the ground water level is near the surface, are more liable to endemic typhoid fever than are areas where the ground water level is a low one during the summer months. This was the case at St. Helens in the areas affected. It is said to be so also in Dublin and many other towns where typhoid fever is specially prevalent, and it brings us back to one of the remedies suggested many years ago of "deep draining areas where typhoid fever is specially prevalent." It by no means follows that areas at a high level have a low ground water level, and it is questionable in areas of stiff clay whether deep draining would have the desired result.

Dr. Robertson is inclined to attach a considerable amount of importance to the influence of subsoil water in the demarcation of the endemic areas, though he also thinks that local customs, in the arrangement and structure of dwellings together with local differences in the habits of the people may have some effect, though as he remarks, there are factors always difficult to estimate.

Dust and Disease.

He feels certain that dust, under certain conditions, is the chief agency in the transference of the poison from the soil to the subject.

"I am now entitled to say," he remarks, "that dust is a very frequent means of spreading soil diseases."

The reason why Dr. Robertson takes typhoid fever as an illustration of his thesis is, he tells us because "we have in it a well marked organism on the one hand, and a valuable series of statistics of the disease on the other."

It is only where accurate statistics of disease are available that inquiries of this kind can be carried out satisfactorily; and it is chiefly owing to the valuable series of statistics, due to accuracy of diagnosis, notification and registration in England, that so much advance has been made in recent years in our knowledge of the infectious diseases.

The worthlessness of the greater part of Indian statistics renders it impossible to carry them out in this country.

SURFACE WELLS AS A SOURCE OF WATER SUPPLY.

[illegible] opportunely calls attention to the [illegible] fallen upon surface [illegible]

[illegible]

"He reproduces the following [illegible] of waters drawn up by the Rivers Pollution Commissioners and generally adopted."

Wholesome	1 Spring water. 2 Deep well water 3 Upland surface water	Very Palatable.
Suspicious	4 Stored rain water 5 Surface water from cultivated land	Moderately Palatable.
Dangerous	6 River water to which sewage gains access 7 Shallow well water	Palatable.

Criticising this Dr. Cameron says, "I hold, however, that surface well water when, that is, it is reasonably safeguarded, ought to be placed third, or at least immediately after upland surface water, and that its proper position is in the "wholesome," not in the "suspicious," much less in the "dangerous" group.

Talking of the gradual substitution of gravitation for well water, he says: "The main purpose of my paper is to ask whether this drastic, and in most cases very costly, change is altogether reasonable, more particularly when, as in many instances, gravitation schemes are forced on unwilling and impoverished communities." Indian administrators please note!

He considers it a libel to put down surface wells as inferior to and more dangerous than surface water from cultivated land.

The essential difference between surface well water and rain water as it runs off the surface of the ground is that the former, percolating slowly through the soil, has undergone filtration more or less prolonged, the latter none at all, and there can be no question as to the universal value of this natural filtration in purifying even the filthiest surface waters.

This is strongly insisted upon by Dr. Vivian Poore, that intrepid champion of surface wells.

Typhoid Fever and Surface Wells.

He alludes to the danger of ploughing up and manuring the soil about surface wells, or over the pipes carrying water from such wells and relates two cases where typhoid fever was caused in this way. He continues.

The only other outbreaks of typhoid fever I have been able to trace to surface wells occurred in the case of one or two, and these were so situated in relation to dwellings and drains, so defectively constructed, and so absolutely unprotected from slop water and filth thrown over them, that crude sewages could not help gaining a direct entrance.

In no single instance have I been able to trace typhoid fever to any surface well situated in a decently clean locality.

The Protection of Shallow Wells.

My experience of surface wells during the last four or five years has led me to think that a most important source of water supply, that, namely, of the subsoil, has been unduly depreciated.

Whence this unreasoning distrust of surface wells, this somewhat blind confidence in gravitation water? the answer given is that more attention is bestowed upon gravitation water.

"Yet it is not uncommon," he says, "to find surface wells yielding pure water though unsealed and surrounded by every kind of abomination."

The reason is that they are surrounded with ground which in spite of appearances still retains its filtering and purifying properties in efficient working order.

[illegible] the surface well problem. I have no great faith in [illegible] surface wells. They.

[illegible] it.

If a [illegible] of clean ground [illegible] inviolable, a [illegible] [illegible].

VILLAGE WELLS.

[illegible] derived a [illegible] shallow wells, and that " [illegible] have established the fact a [illegible] one metre in thickness is an excellent [illegible] that are protected against [illegible] with bacteria from the surface and from the [illegible] a water almost entirely free from bacteria.

[illegible] in the safeguarding of the vicinity of [illegible] wells, and how the surrounding ground is too frequently subject to all [illegible] of contamination. If the water is corrupted he says, the well is not to blame if it does not get reasonable treatment.

" The great desideratum, the one thing needful is that the precincts of the well, the well filter I shall call it for convenience, be [illegible] guarded from defilement. The surrounding ground (half an acre or less might suffice) should be withdrawn from all base uses, laid down in grass and dedicated to the well. "

But of something like 900 analyses made by me of samples from surface wells, I have scarcely found one bad when anything approaching to these conditions obtained.

The author concludes by hoping that legislation will be introduced to make the protection of surface wells compulsory.

BACTERIOLOGY WITH REFERENCE TO PLAGUE.

Dr. E. L. MARSH who has been sent out to assist Professor HAFFKINE in his bacteriological work, delivered a lecture on the above subject in Bombay for the edification of the Wilson College Literary Society, and the daily press. Lieutenant-Colonel W. K. Hatch, President of the Grant Medical College presided.

The lecturer made the following remarks on the subject of protection against Infective Disease.

" At the present time several well established methods of protecting against infective disease are practised :—(1) the method of JENNER and PASTEUR : inoculating naturally or artificially weakened infection-producers of the same variety, with consequent slight illness, recovery, and protection against the virulent disease. Examples, vaccination against small-pox ; anti-rabic inoculation against hydrophobia (2) the method of HAFFKINE : inoculating extinct cultures of the micro-organism and its products, with consequent slight illness, recovery, and increasing resistance against the virulent disease. Example, inoculations against plague ; (3) the method of BEHRING : inoculating blood, or the serum part of blood, endowed with immunising properties, with little or no consequent reaction, and only temporary protection against the diphtheria and tetanus. Methods (1) and (2) produce what is known as *active immunisation* and give more or less *permanent* protection. In these methods the organism is protected partly through the exercise of its own natural protective [illegible] partly through the production of protecting substances under the influence and with the aid of the inoculated [illegible] their products. Method (3) [illegible] *ary* [illegible] immunity [illegible] the [illegible] [illegible]

[illegible] bacteriology. It is [illegible] this prophylactic fluid to be [illegible]. If this is not done the [illegible] relative instead of absolute. [illegible] inoculated, and you are done with [illegible] may still grow in the interior of a [illegible] person. But they remain harmless and [illegible] ed protection so long as noxious influences, such [illegible] cold, heat, muscular exhaustion, and the [illegible] do not seriously diminish the acquired [illegible] tissues. If the resistance be weakened by influences of these kinds the person may catch plague. On the other [illegible] the inoculated person be not subjected to weakening influences, and enabled to convalesce, the injections not only protect against plague, but also increase the resistance of the tissues to diseases in general by reason of the [illegible] tion of the albuminous substances which form the [illegible] the culture medium."

The lecture appears to have embraced the subject of Bacteriology generally, and to have belonged to the class euphemistically termed popular. For a scientific exposition of the subject which forms the heading of this note, we would refer our readers to our Editorial headed, "Dr. BITTER on the Pathology of Plague", June 16th, 1898.

PLAGUE IN INDIA.

BOMBAY.—If the conventional standard of 100 deaths a week be accepted as the point at which a disease ceases to be sporadic and becomes epidemic, then we may say that Bombay City entered upon its third successive plague epidemic in the week ending August 16th, when the number of deaths amounted to 101.

In our last issue the total mortality was given, through an error, for the weeks ending 23rd and 30th August instead of the mortality from plague alone, for the 19th August the figure should have been 118 and for the 26th August 163.

During the week ending September 9th, there were 169 deaths so that the increase up to that date was not very rapid.

BOMBAY PRESIDENCY.—Some places in the presidency are severely affected. The following deaths were returned for the week ending 9th September.

Baroda 91 deaths ; Thana 104 deaths ; Nasik 106 deaths ; Satara 154 deaths ; Belgaum [illegible] deaths ; Dharwar [illegible] deaths ; Kathiawar 159 deaths ; Kholapore 373 deaths.

The mortality up to 9th September amounted to [illegible].

MADRAS.—Plague is gradually extending itself in the direction of Madras and all possible precautions are being taken in anticipation of its arrival. We learn that a special meeting of the Municipal Commissioners [illegible] was held on the 13th September [illegible] of special legislation in connection with the [illegible] Commissioners passed [illegible]

" That the Commissioners [illegible] to Government [illegible] regard to the plague [illegible] render every co-operation to the Government and the Municipal [illegible] in [illegible] what extent the inhabitants [illegible] provide their own hospitals

[illegible] will be [illegible] will be [illegible] with [illegible] purpose. The Government pro[illegible] in this direction, provided [illegible] manage the camps. Government [illegible] the Municipality to show the people who come forward [illegible] their own sheds in suitable places, and to give full directions how huts should be built. The Surgeon-General of Madras has been asked to start inoculation. Should the people desire to undergo it, every facility will be given. It is directed that for each group of fifty houses, one resident of the locality be selected for the purpose of daily reporting arrivals and departures, and all cases of plague or suspicious fever. This person Government considers may with advantage be one employed under Government, the Municipality, the Railway Company or a large firm.

THE P. M. O.'s HEAD CLERK, HIS POWERS AND HIS PICKINGS. A SHAMEFUL SCANDAL.

We have no hesitation in publishing in our columns the following letter from an assistant surgeon, having reference to the shameful injustice of P. M. O.'s trusting so much power in the hands of their Head Clerks or Personal Assistants. The letter is as follows :—

"Just a few lines to let you know how thankful I am for the letter in the *Indian Medical Record* which came here to-day, regarding staff jobs and who gets them. I am placed in the same position. For the past two years I am continually getting done out of subordinate charges and medical charges too—although I have 20 years service *viz.*:—5 years apprentice and 15 years warrant service. Men 7 and 10 years my juniors and 3rd class assistant surgeons get all the staff jobs. All kinds of evasive replies that clerkdom can invent, are sent to my applications which though highly recommended by my immediate superior officers—who are all convinced of the Head Clerk's tricks but are helpless in the matter, as he always gets artfully behind the Principal Medical Officer, and laughs at his victims. I have two medals and ROBERTS' Star. So you see, I am an old soldier—I have a certificate from Surgeon-Colonel——— as I served under that able Medical Officer in Quetta. I showed it the other day to three medical officers here, and they say it is the best they have seen a subordinate with, especially from such a strict officer, organiser, and disciplinarian. I got last week two excellent testimonials from Medical Officers I am serving under, one A. M. S. and one I. M. S. I have copies of three telegrams and one letter in the Head Clerk's own handwriting and an official stamp on it to prove that all the subordinates deal directly with him. All jobs are first squared by him and then official application follows. In the letter I possess of his, he has threatened to send me to Aden for directly asking the Principal Medical Officer for a job and not him. Needless to say I never got the job although the Principal Medical Officer promised it me, as I am the senior in the District, barring those holding charges. I represented the case to the Surgeon-General, who without hearing my side of the story ordered the office doors to be closed and said 'Damn the Regulations, you are not an Englishman, how dare you come and state that you are not getting your rights. I can understand an Englishman asking for his rights.' [illegible] stated to you that [illegible] according to [illegible] I am [illegible] from [illegible] it was stated that [illegible] Assistant Surgeon [illegible] Head [illegible] but when we go to the administrator of justice and ask for bread he gives us [illegible] Did space allow, I could fill a column with the [illegible] of this Head Clerk."

"Would it be worth while to try the Commander-in-Chief when he comes round in November, and lay all my grievances with such proofs as I possess before him? In conclusion I can only join the Psalmist of Israel and say, "O Baboo I can neither eat, drink nor sleep because of thy terrors—Thou art strong, yea thy pen is mightier than the sword."

We can only add that the most serious public blame attaches to Principal Medical Officers and Inspectors-General who relegate the power and authority which the Government of India invests them with, to subordinate officers of a type who cannot withstand the temptations of bribery and corruption, and who by their iniquitous traffic in selling to the highest bidder, the steps to promotion and distinction that belong alone to ability and integrity, degrade their apathetic superiors whose laxity and indifference drags the reputation of the medical administration of this country into the mire.

We thoroughly credit every word of this complaint. That presumptive evidence of a most transparent type is not required to prove that charges of corruption and bribery might easily and justly be laid against many a P. M. O.'s Head Clerk, one has but to invite attention to the fact that these fellows receive a limited salary and yet sport horses and carriages, rent expensive quarters, live sumptuously and luxuriously every day, aping the Civil Servant, and even obtaining from their superiors the most barefaced countenance and encouragement of their vicious reception of perquisites. The whole system of entrusting non-medical men with the position of Head Clerkships to Principal Medical Officers is a disgraceful failure. It has for many years placed a tempting premium on dishonesty and has permitted men with money to obtain promotion which they never deserved, while it has strangled honorable ambition, merit and ability. We appeal to every Principal Medical Officer to purge his office of this vile iniquity for his own name's sake.

The Council of the Indian Medical Association will only too gladly represent any authenticated case of wrong doing on the part of chief clerks who have so grievously sinned against the members of the Local Medical Services, if evidence of a convicting character be forwarded with such a charge.

MEDICAL ADVERTISING IN INDIA.

CALCUTTA ADVERTISEMENTS.

The following are some medical advertisements which have been cut out from the *Statesman* and the *Indian Mirror*, two daily papers of the city. We give them due publicity and we trust the Calcutta University and other bodies who are responsible for such conduct on the part of their alumni, will take the necessary steps to put a stop to it.

Novelty of Ayurvedic Medicine.

AYURVEDIC PHARMACY,

18/1, Lower Chitpore Road,

Foujdari Balakhana, Calcutta.

Kaviraj Nagendra Nath Sen, Member [illegible] Society, London, Society of Chemical Industry, London, [illegible] Chemical Society, Indian Medical Association, Physician, Surgeon, Accoucheur, practises the Ayurvedic system of medicine [illegible] [illegible]

[illegible] with [illegible] Ceylon, [illegible] body of [illegible]

[illegible] of unsolicited [illegible]

[illegible] Treatment [illegible], Calcutta. [illegible] Edward [illegible] Government of India, [illegible] any one who is troubled with [illegible] Sciatica to try Dr. Ashutosh Ghose's Electric [illegible]. The [illegible] causes no pain, but on the contrary is very [illegible].

DR. G. [illegible]

[illegible] discoverer of the now well-known system of treatment called

[illegible]

Has just arrived in Calcutta.

Patients suffering from incurable diseases are requested to call upon him.

[illegible] Street.

[illegible] Homoeopathic Pharmacy,

[illegible] Chowringhee.

We beg to inform our esteemed patrons that Dr. J. N. [illegible] will attend the Chowringhee Dispensary, from 10-30 A.M. [illegible] instead of 3-30 P.M. to 6-30 P.M. as before. Dr. [illegible] will continue.

K. L. BAGCHI, Manager.

ELECTRO HOMŒOPATHY.

A system of Medicine unrivalled in the cure, rapidity and thoroughness of its cures which cover cases generally held incurable.

Price-list, pamphlet, and report of cures post free, and medical advice and instructions in Electro-Homœopathy gratis. Treatment of all serious complaints undertaken by Dr. [illegible] Sanyal, the oldest and ablest Matteist in Calcutta; and orders for books, medicines, etc., executed promptly. For further particulars apply to.

SANYAL & CO.,

[illegible], Bow Bazaar Street, Calcutta.

ELECTRO-HOMŒOPATHIC DISPENSARY.

First established Mattei agency in 1890. All our medicines are indented directly from Bologna in original tubes and phials. Experienced Electro-Homœopath, Dr. R. P. De, [illegible] Agent, [illegible], Bowbazaar Street, attends daily from [illegible] A.M. and from 6 to 8 A.M.

Electro-Homœopathy aims at the very root of the disease, and therefore can cure even those maladies which are yet known to be incurable. Selected Books, Theobald, Rs. 3-13; Glidden, Rs. [illegible] Muller's Guide Re. 1.

CHUCKERBUTTY & CO.,

34-1, College Street. Calcutta.

[illegible] K. N. GHOSE.

Specialist in nervous debility, nervous weakness, nervous exhaustion, loss of [illegible] in the [illegible], Rheumatism, Paralysis, [illegible] and Spleen and [illegible] Female diseases. [illegible] and other medicines [illegible] and all [illegible] for [illegible] analysed by an [illegible] Chemist [illegible] Wonderful [illegible] May be

[illegible]

[illegible] Dispensary [illegible]

Family and Dispensing [illegible] of Mr. J. R. [illegible] formerly of [illegible] criptions filled from the highest [illegible].

The Consultation Department is [illegible] M.D., late officiating House Physician [illegible].

Consultation Hours—8 to 11 A.M., and [illegible] P.M.

At Head Office, 6 Boyd Street [illegible] 4 P.M.

Dr. B. L. ROY, C.M., guarantees, without the help of probe and knife, to cure Carbuncle, Liver Abscess, and [illegible] treatening Abscess; Necrosis, Sinus, Fistula and all bad Ulcers, etc., Roy Bahadur Dr. Kanie Lal Dey, C.I.E., F.C.S., writes: "I state Necrosis which a cousin was suffering for years, pronounced incurable by Surgeons of the City, without operation, is cured by Dr. B. L. Roy simply by external application. I safely recommend his able treatment."

Dr. B. L. ROY.

67-1, Nimtola Ghat Street, Calcutta.

DR. G. T. LEOPOLD, has removed from

Kidderpore to 48, Dhurrumtollah Street.

The premises of Messrs. HOWARD and Co., Surgeons and Chemists, and can be seen at all hours.

A letter in our Correspondence columns exposes a most disgraceful instance of medical advertising, and as the Council of the Indian Medical Association has been written to officially to put a stop to medical advertising in India, we hereby warn all whom it may concern to desist from misconduct of this kind, and if after this caution, we find these advertisements still published, we shall be compelled to ask the Council to take action against all offenders by entering a protest against their conduct to the various corporations and schools from which they have received their degrees, diplomas or certificates.

TREATMENT OF CHRONIC CATARRH OF THE STOMACH WITH HYPER-SECRETION OF MUCUS BY WASHING OUT WITH SULPHATE OF ZINC.

DR. CAPORALI of Naples has tried this method with success in five cases of from one to four years standing, where the symptoms were epigastric pains, anorexia, [illegible] and vomiting.

In these patients, when tested after a [illegible] the stomach contained either very little or no free hydrochloric acid or organic acid, but a large quantity of glairy [illegible].

The stomach was washed out daily or every [illegible].

For the first washing the strength of the solution was from 1·5 to 3 grains in ·35 ounces of water, [illegible] slightly increased at each subsequent washing [illegible] 2 to 15 grains in the same [illegible].

The operation was done when the stomach was completely empty, and [illegible] a [illegible]

[illegible]

[illegible]

... was amongst the evidence tendered.

Mr. W. ... said that from the appearances of a ... as well as by going into the history of the case, it would be possible in ordinary cases to say whether he was suffering from gonorrhœa, but there was no absolute certainty without microscopical examination. The microscope would ... whether or not the microbe of gonorrhœa was present. Urethritis might be produced by having connexion with a woman suffering from leucorrhœa. He believed also that ... act of connexion in an old man who had not had sexual intercourse for some years, and who had taken nourishing food prior to so having connexion, might produce urethritis.

Mr. De Meric, surgeon to the French Hospital, deposed that he treated about 100 patients a week for gonorrhœa. He did not think that any medical man could speak with certainty as to the existence of gonorrhœa without microscopical examination to discover the presence of the bacillus of the disease. Leucorrhœa in women would set up urethritis in men, the symptoms of which were similar to gonorrhœa.

The President: What is the difference between the symptoms of the two diseases?

Mr. De Meric said that in gonorrhœa there was much more inflammation and discharge, and it was much thicker. In urethritis the discharge was much less thick nor was it coloured green and yellow as in gonorrhœa. He saw the respondent after he was cured and from his replies he came to the conclusion that he had not suffered from gonorrhœa.

Medical men had better be careful in diagnosing gonorrhœa in future for they may find themselves indicted for libel, should the gonococcus not be forthcoming to bear them out.

THE MICROBE OF CIRRHOSIS OF THE LIVER.

Mr. J. G. Adami, of Montreal, endeavours to take from us one of our most cherished illusions and to remove the halo of ... which has long surrounded the cirrhosed liver. He maintains that the alcoholic origin of this disease can no longer be accepted, experience has shown that true hepatic ... is never found in animals submitted for a long time to the action of alcohol, also that typical cirrhosis is found in children and adults who have never touched alcohol.

He claims to have demonstrated a specific microbe in the ... liver in 1892-93, when studying, under orders from the Government of Canada, an interesting disease called picton which was epidemic amongst cattle in certain parts of New ...

[illegible]

... with slight enlargement of the liver, healthy ...

[illegible]

... [illegible]

Mr. Adami ... from ... of the ... of the liver, and ... confirmed.

THE IMPERIAL ANGLO-INDIAN ASSOCIATION.

The following Resolutions ... ing of the Board of Directors of the ... Anglo-Indian Association, ... Calcutta, ... September, 1898:—

Resolutions.

(i) That whereas by the ... in accordance with Rule ... the ... Imperial Anglo-Indian Association ... and accepted, the Eurasian and ... now, and shall henceforth be ... Indian Association, or the ... British and European Community of India and their descendants.

(ii) That the Imperial Anglo-Indian Association ... now and shall be declared duly constituted and established.

(iii). That the Constitution and Rules of the Association be now registered in accordance with law.

(iv). That the President, Vice-Presidents, Honorary Treasurer, and Members of Council be duly notified of their official positions in the Imperial Anglo-Indian Association.

(v). That the Government of India and the Provincial Governments, as well as the Secretary of State for India, be provided with a copy of the foregoing Resolutions, and with a true copy of the Registered Memorandum and Rules of the Imperial Anglo-Indian Association.

(vi). That all kindred Associations throughout the Indian Empire and their representatives in London, be provided with copies of the foregoing Resolutions, and with copies of the Constitution and Rules of the Imperial Anglo-Indian Association.

(vii). That the foregoing Resolutions be published in all English newspapers of the Indian Empire.

DOCTORS' PARASITES.

The *Medical Times and Hospital Gazette* says:—Human parasites, who prey upon doctors, ... from them laborious services, not only without ... to the direct detriment of the doctors, have become extremely prevalent of late.

The nature and habits of this parasite are well known to most practitioners, especially in large towns. He ... or rings, as no other mortal man would. He has an intuitive insight into the arrangements of a doctor's ... urgently requiring his services ... to a meal, or ... into his first ... the ...

[illegible]

[illegible] If [illegible] of [illegible] [illegible] with [illegible] the [illegible]. When the [illegible] patient, another doctor is called [illegible]. The County Court has no [illegible] they can set at nought the judgment of the Court. Judges issue judgment [illegible] to enforce payment for money-lenders, but not for doctors.

HOW TO DEAL WITH DOCTORS' PARASITES.

THE *Medical Times* continues :—The above and similar parasites can be [illegible] effectually dealt with by combination of medical men, both locally and centrally. It is often noted that, when the name of one of these parasites is mentioned in a local meeting of medical practitioners, it usually transpires that he is well known to many of those present, each of them at one time or another having been bitten. It has hence naturally enough occurred to doctors that it would be a great safeguard if they kept one another informed of the names of these parasites. The chief difficulty in the way has been the apparent risk of becoming involved in an action for libel by the aggrieved parasite. Secrecy cannot be depended on. There may be traitor, or a fool in any camp. The only safe course is to keep well within the law. Various methods may be adopted for organising a suitable line of action ; but the following is perhaps one of the best. Let, as far as possible, all the reputable doctors in each district form a local society (which may with great advantage be affiliated as a branch to The Incorporated Medical Practitioners Association). This local Committee can then frame for itself rules by which its members may be guided in dealing with parasites, and may with advantage appoint a man of guaranteed trustworthiness and common sense to act as collector, for members, of such debts as they may think fit to place in his hands. This collector can make a list of defaulting debtors, as follows :—

HOW TO KEEP A "BLACK LIST."

OUR previously quoted contemporary still goes on .—A Black List had better not be called a "Black List." It should be merely a list kept for the information of members showing what individuals have, after repeated applications, failed to discharge their debts to their doctors. It is well for such list to mention any reasonable excuse which there may be for such non-payment. It is not wise to circulate such list. It should be kept in the hands of the Collector or Secretary, and be open to the inspection of members at convenient times and places. It should be kept with accuracy, and the payment of outstanding debts promptly entered up in it. It should be clearly understood that the act of a person's name occuring in such a list is not to be considered as justifying the members in refusing to attend such person under ordinary circumstances. Members, however, knowing a patient to be a defaulter should, as a rule, ask for cash, or early payment, and not allow long accounts to be run up. Of course, where people are quite unable to pay a doctor, it is at the option of any doctor to attend gratuitously, out of charity, if he pleases ; but gratuitous work should be strictly limited, and is often open to suspicion of unworthy motives under existing circumstances. It is best to keep the existence of such a list, as far as may be, from the knowledge of the public, leaving parasites to form their own conclusions as to how it is that a knowledge of their little peculiarity has permeated the medical profession.

HOSPITALS IN ANCIENT [illegible].

THE *Scientific American* [illegible] the following [illegible] "A very interesting and [illegible] [illegible] [illegible], near Zurich. The [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] lively [illegible] whole range of Greek and [illegible] literature [illegible] —without noticing one passage that might be [illegible] an allusion to a hospital. The [illegible] of Hippocrates could not fail to speak of them surely, [illegible] ; but nothing is there beyond a reference to the [illegible] of [illegible] [illegible] in the Temple of Æsculapius. So it is generally assumed that there were no hospitals in those days ; the Asclepia were baths' with massage treatment. Scholars who hold to the other opinion can adduce only hints in its favour. But now we hear that one has actually been discovered at Baden, containing 'fourteen rooms, supplied with many kinds of medical, pharmaceutical, and surgical apparatus, probes, tubes, pincers, cauterising instruments, and even a collection of safety pins for bandaging wounds'—but these things are familiar. 'There are also medicine spoons in bone and silver, measuring vessels, and jars, and pots for ointment, some still containing traces of the ointment used.' The latest date of the coins found appears to be in the reign of HADRIAN. Probably it was a military hospital, for this was the station of the Seventh and Eighth Legions. But the find is certainly not less interesting on that account, for the army medical service of Rome and Greece is one of the deepest mysteries of archæology. Cæsar refers only once to his regimental surgeons—is there a single distinct allusion elsewhere ? We hail with puzzled gratitude the casual remark of Xenophon that the SPARTANS sent their doctors to the rear when a fight impended, but we look vainly for more information from him or any body else."

THE NEW WARRANT FOR THE INDIAN MEDICAL SERVICE.

THE following Royal Warrant relating to the Indian Medical Service has been published in the *London Gazette* :—

"INDIA OFFICE, AUGUST 26, 1898.

VICTORIA, R. I.

Whereas We have deemed it expedient to alter the Ranks of the Officers of Our Indian Medical Service :

Our Will and Pleasure is that the following alterations shall be made.—

Present Ranks.		New Ranks.
Surgeon-Colonel...	...	Colonel.
Brigade-Surgeon-Lieutenant-Colonel Surgeon-Lieutenant-Colonel	}	Lieutenant-Colonel.
Surgeon-Major	...	Major.
Surgeon-Captain	...	Captain.
Surgeon-Lieutenant	...	Lieutenant.

Officers above the rank of Surgeon-Colonel shall in future be styled Surgeon-Generals (ranking as Major Generals), and the title of Surgeon-Major-Generals now serving shall be altered accordingly.

It is further Our Will and Pleasure that the following alterations shall be made in the honorary ranks of the Senior Assistant Surgeons of the Subordinate Medical Department in India :—

Present Honorary Ranks.		New Honorary Ranks.
Surgeon-Major	...	... Major.
Surgeon-Captain	...	... Captain.
Surgeon-Lieutenant	...	... Lieutenant.

Given at Our Court at Osborne, this tenth day of August, one thousand, eight hundred and ninety-eight, in the sixty-second year of Our reign.

By Her Majesty's Command,

GEORGE HAMILTON."

[illegible] only [illegible] patents [illegible] inventions [illegible] in all other acts [illegible] far more necessary [illegible] life of the people, and far more beneficent [illegible] as a matter of course without a word of [illegible].

[illegible] one of the unwritten laws of the profession [illegible] in medicine, tending to the welfare of [illegible] should be the public property of the profession, [illegible] regret that Professor BEHRING, should be the first to depart from this high ethical standard.

In taking this course he not only brings opprobrium upon himself, but he lays himself open to the charge of robbing others of the credit due to them; for it cannot be maintained that the discovery and use of antitoxin were the results of his labours alone.

It is said that there is some laxity in the United States patent laws, which permitted this patent to be granted, and that it could not have been obtained in any European Country. The question as to its legality in the United States is also raised.

THE "SIGNE DU SON" AS A MEANS OF DIAGNOSING PLEURITIC EFFUSION.

Dr. A. PITRES, Professor of clinical medicine at Bordeau, frequently employs a method of auscultatory percussion in the diagnosis of pleural effusion; It is analygous to a method used by TROUSSEAU in pneumothorax, when in order to demonstrate clearly the "bruit d'airain" characteristic of the presence of air in the pleural cavity, he percussed with the assistance of two coins.

Repeating this process one day in a case of hydrothorax, Dr PITRES was struck by the clear metallic sound given out by the metallic percussion, when he auscultated close to the seat of the effusion.

The following is the method of application:—The patient sitting up or standing, an assistant holds a coin flat, on the part of the thorax to be examined, with two fingers of the left hand, he then strikes it with the edge of a second coin at short intervals, the physician applies his ear to the opposite side of the thorax, closing his free ear with his finger.

The sound caused by striking the coin is heard, modified according to the state and contents of the thoracic cavity. When the lung is healthy, the sound is dull and heavy. When [illegible] exist such as hepatisation or tuberculous [illegible] the sound is still further deadened and can scarcely [illegible]. When there is air in the pleural cavity the "bruit [illegible] of TROUSSEAU is heard, and when there is pleural [illegible] the sound becomes clear, sharp, metallic, and appears [illegible] close to the ear. This is the "signe du [illegible]."

[illegible] ADV[illegible]

[illegible]

[illegible] the Medical Bill [illegible] in December [illegible] the [illegible] Medical Association and the [illegible] to be abandoned on account of [illegible]. There is a growing feeling [illegible] or otherwise of advertisements [illegible] or to drugs openly [illegible] a scandal to a civilised [illegible] be rendered illegal.

A ROWDY [illegible]

THE *Medical Times & Hospital* [illegible] would appear that the resident medical [illegible] Infirmary require supervision, if [illegible] conduct recently published in the [illegible]. It is stated that one of the members [illegible] had incurred the displeasure of his [illegible] his way to his [illegible] before a masked mock tribunal [illegible] by a man in policeman's uniform. [illegible] the charges against the unpopular doctor [illegible] and the judge sentenced him to the order [illegible]. The unfortunate man was ordered to strip, [illegible] his clothes were removed, and he was forcibly [illegible] plunged into a cold bath where he was left. The aggrieved doctor made a fruitless demand for apologies and then reported the case to the police and the [illegible] magistrate. It is stated that about a dozen of the medical staff are implicated. It is to be hoped that the managers of the infirmary will make a thorough investigation into the case, and if report proves to be true take steps which will prevent a repetition of such horseplay."

IS THIS CORRECT?

THE following cutting forms the opening paragraph of a four page advertisement slip which was circulated with the *Indian Daily News* of Calcutta, in its issue of Monday the 26th September.

> NEW YORK LIFE INSURANCE COMPANY.
> Established 1845. Purely Mutual.
> Resident Board for India, Burma and Ceylon.
> L. P. D. Broughton, Esq., Administrator-General of Bengal.
> W. Garth, Esq., Barrister-at-Law.
> Brigade-Surgeon Lieutenant-Colonel [illegible]
> 53rd Annual Statement, &c., &c.

The above advertisement raises two questions. (1). Is it not *ultra vires* for a Government [illegible] the business Managing Board, and as this [illegible] a shareholder in a private concern? (2). Is it correct for a medical man to have his name publicly advertised in this way? We would ask the Director-General of the [illegible] Medical Service to kindly answer these questions. [illegible] from further criticism until we receive an official [illegible].

POLYNEURITIS AS A SEQUEL [illegible] PROPHYLACTIC [illegible]

THE *Clinical Journal* says:—[illegible]

[illegible]

[illegible]

[illegible] in the [illegible] [illegible] Their course was favourable.

[illegible] DEAD AT LAST.

[illegible] for the [illegible] Dr. George [illegible], of Philadelphia, Pa :—

"It appears to be an established fact, according to the latest information concerning [illegible], that it is really dead at last, and I would therefore respectfully ask to be permitted, through the columns of the *Medical Brief*, to offer the following modest tribute of respect to its memory.

"[illegible] (Antitoxin) : after life's fitful fever she sleeps well." Born in a stable, of doubtful origin, she came into the world to save the body of man, but, although nursed and reared in the lap of science, in spite of the vigilance and care of her foster parents, she early succumbed to a concatenation of circumstances.

"*Requiescat in pace.*"

THE OLD ORDER CHANGETH.

The *Medical Council* for August credits the following to *Life* :—

"Where is your mother, Johnnie?"
"Playing golf."
"And your aunt?"
"She's out on her wheel."
"And your sister?"
"She's training for the football game."
"Then I'll see your father, please."
"He can't come down now. He is upstairs giving the baby a bath."

THE WELSH BAPTIST MEDICAL MISSION.

The medical centre of the Welsh Baptist Mission, Shillong, has been transferred from China to Lailankote on the Nongkhlaw heights above the station, a place celebrated for its large group of druidical cromlechs. Hongsowieah, at the old station, had been the headquarters of the mission for nearly [illegible] years, but the new place is sheltered from the inclemency of the monsoon, and is more accessible from all parts of the hills, besides affording views a great deal more picturesque than the bleak and now shatttered precipices amid which it stood.

THE ETHICS OF LOW FEES.

To take a small fee, because the patient cannot afford a large one, is to act up to the true principle of the profession and to keep up, in its strict form, the honorarium which the fee professes to be. To charge a low fee, in order to attract patients, is a suicidal policy. It degrades the practitioner who does it to the level of a huckster, and it pauperises the person to whom the charge is made, and leads him to put a purely commercial estimate upon the services rendered.

THE DUTIES OF A UNIVERSITY.

Professor Huxley defined the duties of a university as "a corporation which has charge of the interests of knowledge as such and the business of which is to represent knowledge by the requirements of its members, to increase knowledge by their investigations, to diffuse knowledge by their teaching, and last, but not least, to create a respect for knowledge among their fellow men by their [illegible] example and influence." Indian Directors of Public Instruction [illegible] take a hint.

[illegible]

that [illegible], who was the [illegible] Calcutta Medical College, [illegible] Fellowship of the Royal College of Surgeons [illegible] credit.

The Madras Government [illegible] scheme is completed, the river Cooum [illegible] proposed improvements in the water-supply effected, the city of Madras cannot be expected to become healthy. But it has done nothing towards securing the [illegible], and the Chamber of Commerce has had to enter a strong protest against Government inaction in the matter.

The Indian Medical Service Dinner took place on the 15th September at the United Service Club, Simla, Surgeon-General Harvey presiding. The only guest was General Collen. This was the last gathering at which medical titles were used, as the new warrant, giving combatant rank to members of the Indian Medical Service arrived that day.

It has recently been decided by the Government of India in supersession of all previous orders, that for all officers, Civil, Military or Naval, whether in Civil or Military employ and for purposes of retirement, the fifty-fifth birthday is to be reckoned as a non-working day, and that an officer must retire on revert, or cease to be on leave (as the case may be), with effect from and including his fifty-fifth birthday.

As gradually the truth leaks out, says the *Philadelphia Polyclinic*, the members of the medical profession are becoming more and more convinced that the neglect and incompetency from which the sick and wounded of the United States army have suffered, is to be charged upon the War Department and a commanding general, and not upon medical officers, high or low.

Surgeon-Colonel B. Franklin, C. I. E., has been permitted by the Secretary of State to reckon service in the appointment of Surgeon to the Viceroy, towards the additional pension of £250 per annum granted to Administrative Medical Officers, from the date on which he was promoted Surgeon-Colonel.

Ten more medical officers are to be brought out from England shortly, with the rank of temporary Civil Surgeon, to meet the demand which at present exists on account of the threatened visitation of plague. What about medical men who are on the spot and who are qualified and willing to do the work?

We learn from the *Gazette medicale de Paris* for July 16th, which cites as its authority the *Dictionnaire encyclopedique des sciences medicale* that no fewer than sixty-eight physicians have been elevated by the Catholic church to the dignity of sainthood. All of them practised without gain and are credited with some miracles.

We hear on good authority that an *official* practitioner in Calcutta, is doing a round of "social" visits [illegible] for private patients! He has so little "official" work to do [illegible] "official" salary, or he cares so little about doing it, that he longs for the "flesh pots" of [illegible]

[illegible]

[illegible] of Rs. 100.

[illegible] that [illegible] lakhs, are neces[illegible] with sufficient water and sanitary [illegible] the general feeling is that the Govern[illegible] will have to face the situation and provide the necessary funds.

His Excellency the Lord Lieutenant of Ireland, K. G. has appointed Dr. John Lentaigne F.R.C.S.I. to be Surgeon to the Household in the room of Dr. Thomas Hedley, resigned. Dr. Lentaigne is Surgeon to the Mater Misericordiæ Hospital, Dublin.

We regret to announce the death of Dr. John Wallace, of Liverpool, Professor of Midwifery in the Liverpool University College, and Consulting Gynæcological Surgeon to the Royal Infirmary, which took place after a very short illness on September 1st.

Brigade-Surgeon-Lieutenant-Colonel F. A. Smyth (retired), who has been temporarily re-employed as a Civil Surgeon in Bengal, is appointed to act as Civil Surgeon of Darbhanga, during the absence, on deputation, of Surgeon-Captain C R. M. Green.

Brigadier-Surgeon-Lieutenant-Colonel J. Young, Indian Medical Service has been appointed Principal Medical Officer, Malakand Field Force, *vice* Brigade-Surgeon-Lieutenant-Colonel Charlton.

Dr. Bannerman has reported that the Darjeeling filtered water contains more germs than the unfiltered, and this after a very careful analysis. The report is to be sent to the Pasteur Filter Contractors for information and explanation.

A plurality of appointments is a system of official jugglery. Legerdemain of this kind as practised by *official* medical practitioners in Calcutta, Madras and Bombay, is one of the marvels of the age. None but I. M. S. men can do the trick.

Dr. Joseph O'Brien has retired. His stately figure will no more grace the medical region of Park Street, Calcutta. His mantle, such as it was, has fallen on a good man. We say a *good* man and we mean it. We do not say a good substitute.

In the Commander-in-Chief's orders, Assistant Surgeon [illegible] and Hospital Assistants S. B. Varma, Buta Singh, Man Singh, G. Dastgir Khan, Hiralal and Miyanjan are all gazetted for promotion.

Dr. Wallace gives up his consulting rooms in Dharamtala Street from this date and will conduct his practice entirely at his residence, 50 Park Street, Calcutta.

Surgeon-Colonel Franklin, the Viceroy's Surgeon, takes one year's leave and accompanies Lord Elgin home.

Surgeon-Lieutenant-Colonel Moran, Indian Medical Staff, retires from the service on the 10th October.

Medical Practitioners throughout the [illegible], and members of the Local [illegible] are kindly requested to [illegible] Articles and Clinical Reports of [illegible] publication in the Indian Medical [illegible]

[illegible]

[illegible] are clearly [illegible].

Considering that the [illegible] are still sufficiently [illegible] to enable the physician [illegible] to arrive at the truth without difficulty, [illegible] it is his duty to adhere strictly to them; for it is the [illegible] of authors who have treated of this branch of medicine, that [illegible] sign of [illegible] taken by itself, [illegible] a group of isolated symptoms is sufficient to establish a certainty.

When the problem is so difficult that he is unable to solve it, if he does not follow all the rules laid down for his guidance, he is guilty of neglecting his duty, more especially in a case of such importance.

The symptoms of recent delivery do form a problem which the expert is unable to solve, for medico-legally no conclusion can be drawn from an isolated fact, they must all be in agreement.

According to accoucheurs and medical jurists what are the symptoms that the expert should look for?

Externally, the relaxation of the abdominal walls, the presence of fine lines, pigmentation of the linea alba, full breasts containing a secretion of colostrum, darkening of the nipple and areola, hypertrophy of the tubercles of Montgomery.

With regard to the genital organs he should ascertain if the vulva is stretched, the neck of the uterus pliant, the external os widely opened and torn, the internal closed, the uterine fundus a little below the umbilicus; finally he will observe if there is a discharge of a special character and more or less red from the genitals (the lochia). In the opinion of the tribunal the expert should not neglect any of these points.

Did Dr. MELOCHE attend to them? In his report he substantially says: the breasts are full, the areola brown, the glands prominent, a white liquid appears on pressure, the linea alba is darkened, the abdominal walls are flaccid and covered with fine lines below the umbilicus, the fundus is below the umbilicus; the external os is fairly pliable and widely open, the internal os is nearly closed; there are several old lacerations, there is a sanguineous discharge from the uterus.

It is easy to demonstrate by comparing the classical symptoms of recent delivery with those mentioned by Dr. MELOCHE, that he took into consideration all the clinical data insisted upon by the authorities, and endeavoured as far as possible to make his investigation complete.

The tribunal was therefore ill-advised to charge him with having formed his conclusions upon an insufficient number of the symptoms.

Further on we read:—

Considering that, the cases in which the doctor, after following carefuly all the instructions laid down by the best authorities, still makes a mistake, are exceptional, the proportion of such cases being very small in comparison to the number of accouchements, the mistake that was made necessarily presupposes an error, negligence, or imprudence on the part of the expert.

This statement of the tribunal must appear to every practitioner to be somewhat risky; no matter with what care a woman who is supposed to be pregnant is [illegible], a mistake is possible, and this not only by young practitioners but also by those who are experienced, and even by past masters in the obstetrical art.

Two cases in which medical experts [illegible] the same error have been recorded. The [illegible] under the following circumstances.

On the [illegible] October 18[illegible], a [illegible] in the neighbourhood of [illegible], informed the police [illegible], that on the

[illegible]

[illegible] which she had [illegible] a charge of [illegible] in the most careful [illegible] of an infant. It was on [illegible] that she was tried [illegible] before the Court, and her [illegible] only able to put in a plea for mercy; she [illegible] imprisonment.

[illegible] was provisionally set at liberty, she [illegible] himself at the prison [illegible] it was remarked with astonishment [illegible] an advanced stage of pregnancy; she was [illegible] to the department hospital at Nancy and on [illegible] this woman, who had been condemned [illegible] for suppressing an infant to which [illegible] 9th October, was delivered of a well formed female infant at full term.

As the days had passed it was too late for the condemned to lodge an appeal, but the procureur general whose time limit is two months, lodged one on her behalf and she was brought from the hospital before the court on the 18th January, 18[illegible].

Professor BROUARDEL has quoted a similar case which curiously enough also happened in a commune of the name of Vic in Bigorre, and almost at the same time.

A woman was charged with infanticide and brought before the Assizes. The doctor who practised as an expert made a mistake, he stated in his report that the woman had been recently delivered, she was convicted, but as she was leaving the court, labour pains came on and she was delivered the very same day that sentence was passed upon her.

In these two cases the experts were not proceeded against. The diagnosis of pregnancy, so simple apparently, is nevertheless very difficult, especially during the early months. Professor BROUARDEL cites two cases where mistakes occurred.

A Doctor was called to a woman, 42 years of age, whose abdomen had increased greatly in size in a few months, believing himself in presence of a case of ascites he punctured and evacuated 800 grammes of liquid.

The following day the woman gave birth to twins at 4½ months.

It may be objected that the examination made, must have been very superficial, but the second case proves in the most unmistakable manner, that an error in diagnosis is possible even when the doctor take every rational precaution. Mr. MONTARD-MARTIN had in his service, a woman whom he thought suffered from ascites; observing, no doubt some abnormal points in the course of the disease, he requested two of his Colleagues, AXAN, whose House-Surgeon Professor BROUARDEL then was, and JARJAVAY to examine her. They both made the same diagnosis, the abdomen was punctured and 36 hours later the woman was delivered of twins still born.

And yet this woman had been examined by two physicians whose competence cannot be called in question.

If a doctor can be mislead, so [illegible] of all the signs he cannot diagnose pregnancy in the early months.

[illegible]

[illegible] them [illegible]. Concidently with [illegible] the foetus [illegible] foetus narrowly confined in [illegible] tion by the test of vaginal ball[illegible].

These two important signs [illegible] MELOCHE at his second visit, [illegible]

The judgment adds that the [illegible] which we have mentioned, and which [illegible] expert, "are not the most reliable in a [illegible] ready borne children." Reliable or not, [illegible] ones we have at our disposal.

It was a grave imprudence on the part of an expert [illegible] probability of accouchement upon indications which [illegible] did not consider conclusive, for he mentions in addition [illegible] there were no recent lacerations of the cervix and [illegible] a profuse hæmorrhage of which he had no evidence, [illegible] ment of the accused.

In the first place is there any imprudence in affirming a *probability*. The probability, that is the similitude, the appearance of a fact, which however, may not be accurate. In his ordinary routine a physician may be called to a patient suffering from general symptoms, fever, pain in the head, a dirty tongue, intestinal gargling and epistaxis.

Does he at once say to the relations: the patient is suffering from typhoid fever, certainly not, the symptoms may occur at the onset of another disease:—he demands time in order to observe the course of the temperature and the appearance of lenticular rose spots and for the present contents himself with saying. "It is possible, from certain indications, that typhoid may be present."

A woman has not menstruated for two months and a half, she has passed a quantity of blood and clots; it is impossible for the physician to say if there has been a real abortion, although the symptoms may point to it, he will do what he can to give relief, but will reserve his opinion, in order to see if the pregnancy which had begun, is fortunate enough to follow its natural course of evolution.

When the medical jurist finds himself confronted with cases of this description, when he can affirm nothing, Professor BROUARDEL advises him to make use of a formula which binds him to nothing.

Supposing the question is put to him, Has a certain woman been recently delivered? If he is not certain he should reply. "It is not proved that she has been recently delivered, but on the other hand it is not proved that she has not."

Assuredly the medical jurist should not rely upon the simple statement of the accused, who if guilty may have every reason to deceive him; but Dr. MELOCHE did not base his statement regarding the hæmorrhage upon the [illegible] of the Widow BILLY, for he found traces of it both at his first and second visits.

As the ordinary signs of recent delivery did not seem sufficiently reliable to the tribunal, in the case of a woman who had previously borne children, [illegible] as the [illegible]

[illegible]

[illegible] of delivery, [illegible], it would be [illegible] medical [illegible] out such a [illegible], and [illegible] which requires [illegible] and special [illegible] knowledge which [illegible] by studies which cannot possibly be [illegible] the general practitioner.

[illegible] the Court suggested that the judges had made [illegible] in the first instance, and that what they intended to say was that Dr. MELOCHE was wrong in not examining the blood microscopically. But even in this form the statement of the Court cannot be accepted. The microscopical examination of blood is a very delicate operation, and is hardly within the province of every practitioner who may be called by chance to give expert testimony.

It requires great experience in the handling of the microscope, and a thorough knowledge of the histological elements which may be met with in organic liquids. Further a microscope is necessary, it is an expensive instrument and the majority of physicians certainly do not possess one. At the conclusion of his studies the young practitioner, who either at his school of medicine or hospital, has made a certain number of histological examinations, should strictly speaking be able to give a reliable opinion, but when this same practitioner is called upon by the magistrate, according to article 2 of the Act of the 21st November 1893, some five years later, to conduct an investigation which requires a microscopical examination, he will be absolutely incapable of doing it, unless he has by chance continued and completed his microscopical studies after obtaining his diploma.

Besides, the microscopic examination of the lochia cannot give any information as to the probability of delivery. CH ROBIN who has particularly studied this question, and has made a daily microscopical examination of this discharge from the time of accouchement, has found that at first it consisted of pure blood, later on he found an enormous number of white corpuscles, which about the 7th day, presented under the microscope the appearence of a leuchorreal discharge indistinguishable from what is found in women who have never been delivered.

Again, to illustrate the circumspection with which the Medical Jurist should approach the complex subject of expert work in connection with accouchements, it is only necessary to quote the advice of LORAIN. He said, "although I have been an Accoucheur since the earliest days of my medical life, although for 18 months I was house surgeon at the Maternity and at present have a very large practice, I have become more careful than ever in making a medico-legal report in a case in connection with confinement cases."

The medical world was greatly moved by the condemnation of Dr. MELOCHE on such a summing up as this. Consultations were held by the French Medico-legal society, and by the Syndicate of practitioners of the Lower-Loire. M. GAUTTE, Dr. MELOCHE's counsel asked the advice of doctors, JOUON, MALHERBE, GRIMAIL, LERAT, and OLLIVE, who drew up the following in consultation.

We the undersigned, FRANÇOIS JOUON, Professor to the School of Medicine, Surgeon of the Hospital, ALBERT MALHERBE, [illegible] School of [illegible] GRIMAIL [illegible] vice-president [illegible] Gustave OLLIVE [illegible] having been [illegible] by M. GAUTTE, counsel for the defence [illegible]

[illegible] and the [illegible] by the Court of [illegible] the 26th February, 1897.

On the 18th March 1896, the Magistrate of the Saint-Nazaire district, and sub-Procureur of the Republic went to the hamlet of Croix-Rouge They were accompanied by Dr. MELOCHE, a medical expert who was directed "to inquire if a woman named BILLY had recently been delivered of an infant, living, viable, and at full term, or if the sexual organs presented signs of abortion."

After the examination, to which the woman consented, Dr. MELOCHE stated verbally that he had found signs of recent delivery, but at the same time added, that as he had not got the necessary instruments with him, it would be necessary to subject the woman to a more complete examination at Saint-Nazaire.

The Magistrate then asked, "if the facts observed, while not amounting to an absolute certainty yet afforded a strong probability?" Dr MELOCHE, replied in the affirmative.

We may remark that the widow BILLY on being questioned, confessed to having lost a quantity of blood a few days before, but she also stated that the catamenia had been regular, and she denied that she had been pregnant.

She had had four children.

The examination made on the 20th March at Saint-Nazaire does not appear to have brought any fresh facts to light.

In the proceedings there is no written note, nor any trace of a verbal declaration made before the magistrate.

We must therefore conclude that Dr. MELOCHE's opinion after this examination was the same as it was after the examination of the 18th March.

A strong probability of accouchement.

On the 23rd March, at 6 A M the woman gave birth to a child which lived 30 minutes. This fact was reported to the magistrate in a note from the chief warder of the prison. The note said that the child was one of five months.

We cannot accept the age of five months as proved. Who saw the child? Who weighed it? Who measured it? It is only by these means that the age of a fœtus can be ascertained with any degree of accuracy.

We now come to consider the facts, and let us see what part was played by the medical expert.

Dr. MELOCHE is found fault with for having stated there was a strong probability of recent delivery, and for having overlooked the fact that the women was actually pregnant at the time.

In the diagnosis of recent delivery there is no sign which taken by itself is absolutely reliable —in making his diagnosis the practitioner depends upon a number of signs.

What then are these signs? The presence of milk in the breasts, which are found to be full and firm for some days after delivery, the presence of fine violet coloured lines which indicate that there has recently been an [illegible] development of the abdominal walls [illegible] discharge [illegible] blood from the genital tract; the external os widely dilated, the internal almost closed, the fundus slightly below the umbilicus.

These form a collection of signs [illegible] point to the strong probability of recent delivery.

Let us add that the diagnosis [illegible] more difficult in a multipara than in a primipara.

Also [illegible] child has been [illegible] days, and [illegible] after the birth of the first child.

On the Sunday, the 15th March, there had been hæmorrhage, every one agreed, and the widow admitted that the size of the abdomen diminished. What had happened? We cannot say, but it is certain that the woman herself believed that her pregnancy had terminated, for there can be no doubt she knew she was pregnant considering that she had several times been pregnant before, and that she was far from the menopause. Her age was only 30 years.

Finally Dr. MELOCHE is found fault with for not having recognised the existing pregnancy.

In his report, he says that he neither heard the sound of the fœtal heart, nor perceived the active movements of the fœtus, nor found ballotement.

The diagnosis of pregnancy is sometimes difficult, and may be difficult at any period of its course; doctors, surgeons, accoucheurs the most eminent make or may make mistakes which appear inconceivable.

Dr. MELOCHE looked for the usual signs of pregnancy and failed to find them. The heart sounds are scarcely perceptible in the first half of pregnancy.

The absence of movement might have been due to diminished vitality in the fœtus resulting from the hæmorrhage of the 15th March.

It is a question if the Liquor Amni did not come away at the same time and prevent ballotement.

Again it is to be remarked that there is no certainty as to the period of gestation at which the woman had arrived, for the fœtus was neither measured nor weighed. We have said that Dr. MELOCHE looked for the usual signs of pregnancy, and we cannot admit that the chemical analysis of the blood provides a certain means of diagnosing either pregnancy or accouchement, as is stated in the following passage.

That with regard to examinations made on the 18th and 20th March the expert neglected to submit the blood to a chemical analysis, while its composition, is according to all authors who have devoted themselves to legal medicine, one of the most certain indications of accouchement

What blood is here referred to? Is it the blood that flows from the genital tract or is it the blood that the expert should have extracted from a vein? In either case from the medico-legal point of view the answer is the same? No medical jurist will admit that the chemical analysis of the blood can be utilised for the diagnosis of pregnancy. And no one would seek in such an analysis for one of the most certain indications of delivery.

Since AUDRAL and GAVARRETS' work on the subject, it is well known that much attention has been paid to the chemical analysis of the blood of pregnant women the subject however is one whose proper place is the laboratory, and it can serve as a basis neither for a clinical diagnosis nor for a medico-legal diagnosis. LOURDES indeed says that it is possible to distinguish between the blood of accouchement, the blood of menstruation, the blood from a wound and the blood from an animal in a state of stimulation. But there is nothing about chemical analysis.

Finally the medico-legal society of France, surprised like ourselves at this portion of the judgement of the Court of Saint Nazaire, has devoted itself to this question at its meetings of 10th May and the 14th June 1897 and has unanimously arrived at the following conclusion

"The Medico-Legal Society expresses the opinion, contrary to what is stated in the Judgement of the Court of Saint-Nazaire, that the chemical analysis of the blood yields no evidence upon which we can affirm the existence of pregnancy or of recent delivery."

Consequently we the undersigned are of opinion —

(1) That Dr MELOCHE's mistake, if indeed there was any mistake cannot be held to amount to an error, an imprudence or negligence

(2) That the opinion of the Court of Saint-Nazaire cannot be accepted. Nantes, 10th July 1897.

This consultation was submitted to Professor BROUARDEL for his approval, he wrote as follows:—

"I the undersigned, PAUL BROUARDEL, Head of the Faculty of Medicine of Paris having perused the report made by Doctors [illegible], in the case of BILLY, vs. MELOCHE, and having [illegible] the proceedings of the Court, approve without reserve of the contents of the report and of its conclusions.

(1) In my opinion Dr. MELOCHE after examining the woman, if he was deceived in his diagnosis, certainly did all that was in his power to avoid mistakes.

(2) The opinion expressed by the Court of Saint-Nazaire is opposed to all we know of the methods of diagnosing pregnancy. 17th July, 1897.

Furnished with these opinions Dr. MELOCHE entered an appeal and the case came before the Court of Appeal at Rennes, Presided over by M. ADAMS: on the 2nd June 1898. The Court gave the following judgement.

Considering that on the 18th March 1896, in the Commune of Campbon, Dr MELOCHE was requisitioned by the magistrate to visit the widow named BILLY, charged with suppressing an infant, "to see if this woman had been recently been delivered of a living child or if the sexual organs presented signs of an abortion" and that having fulfilled the last the expert informed the magistrate, "that he had found traces of recent delivery, but that not having with him the necessary instruments it would be necessary to make a more complete examination at Saint-Nazaire" and that being asked to say if his observations pointed to a strong probability of delivery he answered in the affirmative.

Considering that on the 20th March, at the prison in Saint-Nazaire he again visited the widow, that from the report submitted by him on the 1st April, it appears that the symptoms found did not prevent him to state definitely that the woman had been recently delivered, that the symptoms provided a strong presumption in favour of delivery, and that they showed the necessity of following their progress to see if the milk disappeared, if the uterus underwent normal subinvolution, but that on the 23rd May the magistrate was informed by the prison warder that on that day at 6 A M the woman had given birth to a child at five months, which lived till 6 30 A M

Considering that on the 18th March, when Dr MELOCHE was visiting the accused, she said that she had had on Sunday the 15th a large discharge of blood mixed with clots, that nothing had come away at all resembling a child, that she had menstruated regularly and that she had not been pregnant.

Considering that it is notorious that the diagnosis is always much more difficult in a multipara than in a primipara, and that the Court is not in a position to pronounce with entire certitude that Dr. MELOCHE has wrongly estimated the value of a number of symptoms, which according to the highest medical authorities, furnish a strong probability of recent delivery, and that he was guilty of negligence in not employing a stethescope to find the heart sounds or in not making a microscopical examination of the blood.

Considering that according to the woman's own statement she had lost a large quantity of blood on the 15th March, we must recognise that the duty confided to Dr MELOCHE was a particularly delicate one, and that he acted prudently in not stating positively that the woman had been recently delivered, either after the examination of the 18th or of the 20th March.

Considering further that before the order for the arrest of the accused was issued, all the witnesses examined on oath before the magistrate had disposed to the facts in the most solemn manner, that the increase in size of the abdomen had been so marked that it had formed a common subject of remark throughout the whole place since the end of January.

Two young men affirmed that on the 18th February in an inn she had asked them if a woman who was 4 or 5 months' pregnant could bring on an abortion by the use of herbs (rue). On the evening of the 15th March, she had sent one of her children to tell her mother that she was ill, her mother had gone to her and found her confined to bed, she passed the night in the house, and the following morning she had been seen washing a woman's chemise and two skirts which were stained with blood from top to bottom. Considering that under the circumstances it is not certain that the opinion expressed by Dr. MELOCHE, was the cause of the widow's

service, and that consequently this honourable expert cannot be required bear the responsibility of a step which removed, the vigilance of the magistrate.

For these reasons the Court supports the appeal, defeats the demands of the widow Bilas, and releases Dr. Mahore from the judgement passed against him.

Thus this unfortunate matter terminated, and the whole medical profession has cause to felicitate itself on the result arrived at by the Court of Rennes.

The formal conclusion to be drawn from this judgement is, that the medical expert who makes a mistake is no more responsible for it, than the magistrate who orders the arrest of an accused person whom he is obliged to place at liberty some days afterwards for want of proof, because his innocence has been established.

The report made in a case by the medical jurist has only a relative value, it is furnished to the magistrate who desires information upon a special point of which he is ignorant, he is not bound to accept its conclusion, but if he does accept them, it is he who takes the entire responsibility. The expert in his report never recommends the arrest of the accused person whom he has examined, for even if his report is favorable to the accused, the magistrate can still order the arrest if he can elsewhere obtain sufficient evidence.

The Court of Appeal in a recent case, where it was a question of experts in hand-writing, has clearly laid down the manner in which the report should be considered by the magistrate.

The following paragraph occurs in this judgement —

"Considering that, undoubtedly experts are useful auxiliaries to justice, but that their mission consists in making material statements, and in giving their advice in a clear manner, on the questions which are submitted to them, that their opinion which may always be disputed by the litigants, should not be binding upon the magistrate and that their reports should not have an official sanction"

The situation then is quite clear The medical expert accepts no responsibility in the report which he places at the disposition of the Court, even if his conclusions are erroneous, always provided that his statements have been made in good faith

If he has knowingly stated facts contrary to the truth by fraud malice, or with intent to deceive his case comes within the jurisdiction of the Court and he is treated the same as any one else.

In conclusion there remains one point which must be approached delicately For some years, espe ially since the daily press has on all sides taken to publishing medical theories, and therapeutic methods, almost as soon as they are discovered, the public, kept up to date as regards the progress of the science, wrongly imagines that it is in a position to discuss the subject.

Unfortunately magistrates foregetting that in such matters they are incompetent, enter too readily into medical subjects and discuss them in the preamble to their judgements

And yet the relations that should exist between magistrate and doctors, and the way in which a case relating to medical responsibility should be considered and discussed before a Court, has been clearly laid down 60 years ago by the Procureur General Dupin, who said —

"In cases of this kind, it is not a question of whether the treatment was well or ill-advised, whether it was beneficial or injurious, if another course would have been preferable, whether such an operation was indispensable or not, whether it was prudent or not to attempt it, whether with such and such an instrument, or done in such and such manner it might not have been more successful

"These are questions of science, which must be discussed between doctors which do not involve civil responsibility and are not subject to the examination of the Court."

It seems that magistrates as well as doctors have everything to gain by keeping within the bounds assigned to them by Dupin, Medical discussions represent differences between Hippocrates and Galen, and magistrates should not intervene, otherwise their judgements will be liable to be erroneous and incorrect and to cast discredit upon the learned of the Legal Profession.

Current Medical Literature.

MEDICINE.

Convulsions in Infants and Children.

Enquire prompt and efficient treatment as they are accompanied by more or less brain hyperæmia, asphyxia, and congestion of the lungs and various internal organs, and if not immediately relieved may end in death. Apply a hot pack at once of 75° to 80° F, water round the child's body, apply ether or chloroform to its nose and give it a large enema of 95° to 100° F water While the child in their resting first take its temparature (if it be subnormal use stimulants) and then looking into the history of the case examine its lungs, heart and urine and search the nose and ears for foreign bodies &c and the penis for phimosis. The hot enema which may later on be followed by cold injections of 90 to 86°F. relieves the heart, equalises the circulation, dilates the peripheral vessels and unloads the bowels w liquefies the fæces, while the hot pack will relieve capillary congestion and relaxing the superficial vessels expedites heat elimination. In all cases except shock apply cold to the head, and if the temperature remain excessively high, follow the hot pack with a cold one and give what remedies the nature of the case requires. If the convulsions are excessive or unduly prolonged, give a hypoderm of $\frac{1}{15}$ $\frac{1}{12}$ or $\frac{1}{8}$ grain of morphine according as the babe is 6 months, 12 months or 2 years old and repeat in an hour or two, doubling the dose. In asphyxia use oxygen and it is proper, in most cases, to give a purgative, as calomel, by the mouth, or if the constipation be obstinate 1 to 1 drop of croton oil may be given in glycerine or whiskey. A child who has convulsions, or a tendency for them to recur, must be kept absolutely quiet and fed in the simplest manner, altogether by fluids—for several days—*Phil. Poly*

Varieties of Diabetes Mellitus.

Owing to multiple etiologic factors the infinite varieties of this disease would be hard if not impossible, to classify properly and Lepine shows that each case is constituted by several pathogenic elements of varying importance. Thus while gout in arthritic persons is associated with an intermittent but abundant glycosuria, comparatively benign, certain diseases of the pancreas may be followed by a rapid and dangerous diabetes In some cases of diabetes the sugar may be lacking or be transformed into fat or be oxidised, while in other cases there is exaggerated distinction of nitrogen and some of the patients excrete enormous quantities of sugar after ingesting much meat Then in pancreatic diabetes there is azoamylia and diminution of glycolytic ferment, fat formation and sugar production, whereas in the nervous variety there is azoamylia, exaggerated hepatic glycogenesis and diminution of glycolytic ferment, while the glycosuria is often quite moderate and may even disappear leaving behind a simple polyuria.—*Sem. Med.*

Alterations of Taste and Smell in Tabes.

Kliffel has made a study of the various alterations in the senses of smell and taste as they occur in tabes dorsalis Contrary to the general idea that these symptoms are rare, the author finds that they are of common occurrence in cases of this disease, and may manifest themselves at a very early date, in regard to this they correspond to the other sensory symptoms, such as numbness, paræsthesia and pains At the same time the author has noticed the late occurrence of these symptoms in several cases. In these circumstances anosmia and agustia are observed, and as by this time the patient has, as a rule many other symptoms to absorb his attention, complete loss of smell may go unnoticed. Both these symptoms may appear suddenly and in association with bulbar symptoms In other instances smell and taste merely show perversion and in an intermittent form, thus resembling crises There may be for a day or so at a time peculiar earthy metallic, or bitter taste sensations appearing independently of meals, and lasting for about ten minutes or a quarter of an hour. In the same manner patients may complain of sour smells and odours of stale fish, vomited matter, etc *Brit. Med. Jour*

Hot Water Treatment of Mycetoma

E. Legrain, in describing cases of mycetoma met with in Algeria, was struck by the absence of any tendency to generalisation, in which point it contrasts with actinomycosis.

[illegible] opposing [illegible] parasite [illegible] abdomino-thoracic [illegible]. The hypothesis is corroborated by the fact that the development of cultures is arrested by a temperature above [illegible].

Acting on this idea, LEGRAIN has obtained excellent results by hot-baths at 45°C. in cases where the bones and ligaments are not yet involved.—*M. T. & H. G.*

Intestinal Obstruction by Round Worms.

THE well-known inconvenience and even danger arising from the presence of round worms in the alimentary canal receive additional confirmation from a case which is graphically described in the *Annales de Médecine et de Chirugie Infantiles* of 1st August, 1898. It is that of a child, aged nine years, who presented all the usual symptoms of intestinal obstruction with an area of dulness from 12 to 15 cm. in length, corresponding to an elongated swelling about the middle of the transverse colon. Laparotomy was performed and it was found that this swelling consisted of fæcal matter and that the colon at the junction of its left third with the other two-thirds was actually "corked" (*sic*) by a mass of cord-like substance which proved to be an entangled knot of round worms. Massage of the colon was successful in reducing the obstruction, the contents of which were pressed as far as possible towards the sigmoid flexure. The abdominal wound was then closed. The relief of symptoms was rapid and pronounced; on the third day, with the help of calomel and santonine, three round worms were passed by the anus and the child was well in a week.—*Lancet.*

Hæmaturia in Chronic Nephritis.

Is always a dangerous symptom which is the begining of the end," insists DIEULAFOY, who quotes several cases proving that though it frequently occurs in acute nephritis and may have slight importance as regard the future still, once renal disease has been established, the appearance of blood, however slight, is of very grave import.

Treatment of Constipation.

Drugs are held in abhorrence by EINHORN who thinks it wisest to let Nature take her own course in transient disturbances of digestion, since constipation is for the most part due to an insufficiency of vegetables, fats, fruits and starchy foods, wherefore he treats habitual constipation by demanding a hygienic mode of living, correcting faulty diet, increasing the consumption of vegetable, fruits, fats and starchy foods, and impressing the patient with the importance of not bothering much about his bowels, trains him to defæcate once daily at a certain time. If drugs are imperative he advises a *very slight* cathartic for a short period, then diminishes and ultimately discontinues its use.—*Post Graduate.*

Microbes in Acute Rheumatism.

WHEN found as staphylococci and streptococci in the blood, urine and synovial effusions of 92 cases of acute rheumatism by SINGER, who does not accept the specific action of salicylates but believing that acute rheumatism which is of microbic origin shows its pyæmic nature by its relation to sore-throat, erythema multiform &c., finds that in those cases where arthritic effusions appear sterile, the bacteria, which have their seat in the peri-articular tissues only have escaped with the hæmorrhages.

Parotid Swelling in Uræmia.

FOR some unknown reason has not attracted the attention which Dr. RICHARDIERE thinks it ought to receive as a typical intoxication due either to intense hypersecretion, or to chemical modifications of the natural secretions. Increased secretion is a common occurrence of uræmia and among a large number of cases of ptyalism [illegible] recorded is mention of a patient who secreted 900 grammes (almost 29 fluid ounces) of saliva in 24 hours.

SURGERY.

Rupture of the Quadriceps Extensor.

1. In recent case in which [illegible] the joint is apparently not opened, and in which the [illegible] ed ends can be approximated and detained by suitably adjusted pads, the mechanical treatment may be carefully considered. In the hands of the intelligent general practitioner this method may be expected to bring about a complete recovery in the larger number of cases. From nine to twelve months will be required to re-establish fully the normal functions. 2. A too prolonged fixation in bed is unfavourable to an early recovery; therefore early massage and passive motion are strongly advised. 3. The skilled aseptic surgeon who primarily resorts to the operative method in suitable cases (but the age and vitality of each patient must be most carefully considered) may quite reasonably hope to obtain a better result in a large number of cases, and save his patient three to six months' time. Catgut, kangaroo tendon, or silk-worm gut should be used, and when there is much effusion drainage should also be employed. 4. When the separation is greater than one and one half inches, or when the case has not recovered under the mechanical treatment, the operation is indicated. 5. As the length of time required for treatment is a very important consideration, so the operative method, which has diminished this period and also succeeded in a larger number of cases without increasing the danger, will be more often indicated and more frequently applied in the hands of the skilled surgeon.—Dr. WALKER in *Clin. Jour.*

Extirpation of Larynx and Œsophagus.

GARRE reports three cases of malignant disease all operated on. First, a man, aged 45, the whole of the larynx was extirpated, the œsophagus being dissected from the larynx. Good recovery with no return two fears later. Scond, woman, aged 49. The entire larynx and large piece of œsophagus were removed. The cancer had commenced in the œsophagus. No return four months afterwards. Third, the larynx, 5 cm. of œsophagus, and 5 upper rings of trachea, were all excised. Patient recovered from operation, but there was early recurrence in the glands.

GARRE believes that improved technique, the use of Trendelenburg's cannula and Haun's cannula, together with improved sanitary position after operation, have had the effect of materially reducing the death-rate.—*Canad. Prac.*

Cholecysto-gastrostomy.

TERRIER reports a case in which upon opening the abdomen for obstruction in the gall-duct, due to cancer of the pancreas, he performed the unusual operation of forming an anastomosis between the gall-bladder and the stomach, which was more readily accessible than the intestine. Recovery followed the operation, and there was no disturbance due to the outpouring of bile in the stomach. The patient died some months later of disseminated carcinoma, and upon autopsy, the anastomotic opening was found to be ample. Only two other cholecysto-gastrostomies have been performed.—*Med. News.*

The Art of Neglecting Wounds.

"A GOOD deal of skill is required in order to neglect wounds well" says Dr. ROBERT [illegible] who [illegible] out that this "neglect" really [illegible] proper understanding of the process of repair since (1) [illegible] are broken down, (2) [illegible] created, (3) recovery is retarded, (4) repair [illegible] and (5) very often sepsis and inflammations are [illegible]

[illegible] of more [illegible] to wounds being [illegible] and dressed too often at [illegible] time when they should be left severely alone. [illegible] fine soft gutta percha tissue or Lister's protective silk less harmful to granulation tissues than antiseptic gauzes which (latter) are likely to tear granulations and damage epithelial growths. In further illustration of his theory of non-interference he shows (1) That in incised wounds without much injury to the trophic nerves, but not healing by first intention, the capillaries begin to develop exceedingly fine and very delicate granulation tissue often accompanied with free suppuration which we might feel tempted to wipe or wash out, instead of leaving it alone. However gently done the merest touch provokes traumatisms which develop exuberant granulations *poorly* supplied with blood vessels and the removal of the gauze covering tears off some of the granulations, but if left alone the pus will disinfect itself and hasten the reparative process (2) When the epithelium is shooting across a wound it is still more desirable to *not* meddle with the dressings as the slightest touch will damage this hyaline epithelium and by removing some of it retard the healing of the wound. (3) In peritoneal operations after evacuating the pus and inserting the drainage apparatus we are slowly tempted to wash out the wound with peroxide of hydrogen or some other antiseptic, because of the stench. If we do so we not only unnecessarily disturb the patient to whose safety *rest* is essential, but we also inflict new traumatisms that induce hyper-leucocytosis and (often *dangerous*) reactive inflammations. Ignore the stench and let the colon bacilli increase in number. They will at first produce a very foul odour in the discharge but in 3 or 4 days the streptococci multiply so abundantly as to destroy all other bacteria, decrease the disagreeable oder and hasten repair (4) Take burns of the second degree where blebs have formed and broken and an extensive surface has been denuded of creticle. The serum such an injury throws out is healthful and germicidal. Etherize the patient, open the blebs, cut away the dead tissues and skin, scrape the parts with an antiseptic solution and covering the denuded surface with strips of gutta percha tissue (changed once in 10 or 15 days) leave the rest to Nature with her serious exudations and supurative processes. The patient does well, but change the dressings frequently, mop out the serum or wipe off the pus, and traumatisms arise leading to sepsis with the risk of thrombi, necrosis of the duodenum and perforating ulcers.

Pseudospastic Paresis with Tremor.

Is a rare affection of uncertain pathology and Dr. ONUF tells how *immediately* after being struck on his head by the corner of a trap door, a heavy drinker, age 40, his face and limbs paralysed and anæsthetic, but did not lose consciousness. Speech and facial movements were completely recovered in 20 minutes, but though it took a good 4 months for the limbs to regain full power, curious tingling sensations persisted in the hands and the slightest excitement made his body tremble and shiver violently, while the deep reflexes were greatly augmented and the plantar and abdominal reflexes absent. His gait was spastic and high stepping. ONUF does not agree with the suggestion that this condition is either a functional disturbance or a traumatic neurosis, [illegible] to the traumatic lesion of the spinal cord or capillary hæmorrhages in the brain.

[illegible] GYNECOLOGY.

Choice of Route, Abdominal or Vaginal in Intra-pelvic Surgery.

IT being impossible to lay down a rule of thumb that such and such work should all be done in one particular way, Dr. CLEMENT CLEVELAND thinks each case must be judged on its own merits and each route will always have its advocates and its uses, though there are operations in the pelvis that cannot be done per vaginam—a route, however, is not always feasible, though naturally indicated. It is a mistake to say that as clean and thorough surgery cannot be done through the vagina as through abdominal section and the objection to vaginal hysterectomy or ovariotomy from the possible presence of adhesions is not of much moment, since ovarian cysts of the present day have not had time to acquire adhesions, and with cystic ovaries, small solid tumours of the ovaries, multilocular cysts of small size, broad-ligament cysts, dermoids whose rupture produces fatal peritonitis by reason of the dangerous fluid it contains, pus tubes, small fibroids, especially when low down, tuberculous conditions of the ovaries and tubes, pyosalpinx, tubo-ovarian abscesses, small myofibroma, most polypoid growths and cancer of the uterus, are most easily, and most wisely removed per vaginam. Large myofibromata may also be removed through the vagina, but the operation is so very long and the danger from hæmorrhage so great that abdominal hysterectomy becomes the safer and quicker course. So also with cellulities and extra-uterine pregnancy: True conservatism should always be our guide in the treatment of disease and it more than often happens that an apparently hopelessly diseased uterus can be cured by curettage and drainage—even when the infection has been from gonorrhœa. If a cancerous uterus cannot be removed per vaginum it has reached a stage where operative interference is by no means justifiable. *Always* take the lower route when dealing with pus-tubes, dermoids, and pyosalpinx and *never* open the abdomen for the removal of such. Whenever possible to do so try to save the uterus and keep well in mind that it is rarely necessary to open the abdomen for the surgical treatment of those diseases of the pelvis that are due to infection.—*Med. Rec.*

Occurrence of Menstrual Secretion in the Fallopian Tubes of the Human Subject and its Significance.

FORMED the subject of a long series of investigations undertaken by C. J. BOYD F.R.C.S., to prove whether the bloodstained mucus-like menstrual fluid, found in the lower portions of the Fallopian tubes during uterine menstruation, originates in the tubes or depends on backward regurgitation, from the uterine cavity. He finds that this tubal secretion coincides with or proceeds, but never succeeds the appearance of the menstrual flow externally, and that definite changes found in the Fallopian mucous membrane at that time flouts the theory of regurgitation from the womb. The occurence of this Fallopian menstruation, he notes, has an important bearing on certain points in human pathology. For instance it may predispose to extra-uterine or tubal pregnancy by providing a surface on which the ovum, in its passage through the tube, may become grafted. It is likely that much of the pain of dysmenorrhœa is due to tubal colic or to efforts to expel the tenacious bloody mucus, especially in those cases in which the pain precedes or coincides with the first day or two of the 'menstrual period.' It has an important bearing on certain signs of hæmato-salpinx when tubal pregnancy is absent and may also throw light (even in the absence of gonorrhœa or other infective processes) on certain cases of recurring local

[illegible] conclusion that the exfoliated lining is the result of tubal conception at the menstrual period.—*New York Jour.*

Disinfectants in Septic Puerperal Cases.

It is the opinion of many leading obstetricians (as may be seen in the discussions of the Obstetrical Society) that without disinfection no more lapse of time will prevent conveyance of infection; and if thorough disinfection is carried out, it is not necessary for a doctor or midwife to discontinue practice for a longer time than that necessary for the disinfection. No lapse of time will sterilize a septic douche or syringe, nor will it change the habits of a woman who never uses a nailbrush. On the other hand, if the midwife will burn her infectious garments and put on clean ones, will scrub her nails till they are spotless, make a practice of boiling her syringe, catheter, etc., and of carrying about and using antiseptics, it is not needfull that she should abstain from practice. This we believe, is the current teaching of those who are best qualified to form an opinion on the subject.—*Treatment.*

Perforation of Uterus by Sound and Curette.

ROSENFELD reports a case of unusual importance, as the injury was made plain to the naked eye by operation. The patient was 32, with flabby muscles, the last pregnancy ended 18 months before the operation, which was to cure complete rupture of the perineum and prolapsus uteri, from which she had long suffered. Before the operation, by PROCHOWNICK, a sound was passed cautiously into the uterus, and suddenly slipped in for over 5 inches; no pain followed. Next day PROCHOWNICK began by using a blunt curette. It also passed in suddenly over 6 inches, going into and beyond the uterine cavity. Partial amputation of the cervix was performed, as well as repair of the perineum. In the course of somewhat complicated incisions (MACKENRODT'S operation) the body of the uterus was rotated into the vagina. The perforation lay in the posterior wall of the uterus, a little behind the fundus. It was slit-like, a quarter of an inch long, and its edges were almost clean cut. There was no evidence of peritoneal irritation, but a thimbleful of bloody serum, without clot, escaped from DOUGLAS'S pouch. The edges of the wound were carefully united with catgut. No ill consequences seem to have followed. ROSENFELD calls attention to to BEUTTNER, COMBANT and ODEBRECHT'S three cases of instrumental perforation of the uterus, all reported in the 1897 volume of the *Centralblatt fur Gynakologie*

Hysterectomy.

COE contends that abortion should be induced, if possible, when tumors in the lower segment do not rise out of the pelvis as the uterus enlarges. Submucous polypi may be removed when they are accessible. Subperitoneal growths can be disregarded unless they become impacted in the pelvis, undergo torsion of the pedicle or contract adhesions. Liberations of the tumor under anesthesia failing, the abdomen can be opened to separate adhesions or remove the tumor, not disturbing the uterus. Conservative myomectomy may be performed with the hope of subsequent normal labor. The indications for hysterectomy in cases of fibroid become more urgent if pregnancy coexist.—DR. H. C. COE, in *Medical News.*

[illegible] Anthropology.

Steps in the Development of the Placenta.

HAHN reports a case of abortion at the fourth month, in which, on admission of the patient into GUERNSEY'S clinic, a foetus twelve centimetres long had already been expelled. The thin cord was in the woman's vagina, and through the os, which was wide enough to admit a finger freely, a soft body as large as a walnut projected, and turned out to be a projecting flap of the placenta, bearing the nearly marginal insertion of the cord. It was remarked that the maternal side of the placenta was nearly as smooth as that to which the cord was attached, and this smoothness extended some distance higher up. HAHN points out that in this case there was a reflex placenta of considerable size, for the smooth thick, decidual investment which completely clothed the lower portion could, from its macroscopic appearance, its relation to the limiting ovisac, and the feeling to the touch above mentioned, only be regarded as decidua reflexa. The fact that the cord was inserted on the projecting reflex portion, and that the villous tissue exhibited most development about the insertion of the cord, HAHN considers a new proof of KELLMAN'S theory, according to which the position of the placenta merely depends on the primitive insertion of the allantois on the chorion,—that is to say, what becomes later the insertion of the umbilical cord.—*Uni. Med. Mag.*

Climacterium in Males.

IN many males, there is manifestly a physiologico-critical period about the beginning of their fifth decade. This change of life is one primarily associated with nutrition. The digestive and assimilative functions begin to slow down between 40 and 50 years of age, and the organism as a whole, undergoes a readjustment. If the digestion remain active while assimilation becomes less perfect, an increase of weight, due to accumulation of fat, takes place. If on the other hand, digestion is the first to fail, symptoms of dyspepsia, with associated loss of flesh, characterize the period of transition. It is in the athletic individuals of active muscular habit that the manifestations are most marked. A time arrives when lessened nutrition renders it impossible to maintain the normal activity of the muscular system. The eliminatory organs perform their function less perfectly, and the processes of disassimilation are hindered. The accumulation of the products of metabolic tissue change in the system, reduces the vitality of the subject and indisposes him to the routine amount of exercise. If the subject fail to grasp the significance of these sensations he renders himself liable to various functional disturbances which may culminate in organic disease of the organ or organs most exposed to the strain. Even if he yield to the pressure put upon him, it takes some time for the muscular and vascular systems to tone down to the reduced standard of vitality and during the period of adjustment he is apt to suffer from a variety of more or less distressing feelings; which not infrequently determine mental depression. The change is not unlike that holiday spent in active physical exercise. There is the same want of harmony between nutrition and muscular exertion, but in the waning adult, there is, of course the factor of increasing arterial rigidity and general loss of of tone on the part of the tissues. The so-called "critical period" is only critical in so far as the readjustment of the organism to changing conditions is interfered with. Those who have always led a sedentary life are less subject to these disturbances than the more robust and actively disposed. Often the harmony of the functions has been restored the individ-

dual [illegible] and he comes to believe in the [illegible] which are apt to result from [illegible] irregularity."—*Jour. Amer. Med. Assoc.*

Preparation against Cholera and Typhoid Fever.

R. PFEIFFER and MARX have investigated the employment of preserved inoculation material against these diseases for use in epidemics or in war. PFEIFFER and KOLLE's method of immunising man against typhoid fever consists in injecting subcutaneously 2 mg. of an eighteen hours' old agar culture killed by an exposure to a temperature of 70° C. In this way the serum of the inoculated individual acquires the properties of the serum taken from a patient who has passed through an attack of typhoid fever. For the purposes of preservation the authors added 5 per cent. phenol or 50 per cent. glycerine. They found by experiment that the efficiency of the inoculation material was unimpaired by the phenol but was considerably diminished by the glycerine. In the same way they showed that cholera inoculation material may also be preserved for long periods by the addition of 0·5 per cent phenol. PFEIFFER and MARX then inoculated with this preserved material three laboratory attendants against typhoid, because they have on several occasions known of severe laboratory typhoid. The injections were made into the back In a short time the temperature rose to 38° C., and there was headache and *malaise*. One of the attendants was well on the following day, whereas the other two after a restless night still had a temperature of 380 C, and showed some swelling and redness about the sight of the injection Twenty-four hours after the injection these symptoms began to abate, and the patients were well on the following day. Blood was taken from these attendants before and after the inoculation, and the serum showed marked immunising properties after the injections. Thus the authors conclude that both the cholera and typhoid inoculation material may be kept unimpaired for at least four to ten weeks by the addition of 0·5 per cent. carbolic acid.—*Brit. Med. Jour.*

Examination of the Sputum.

A HOFFMANN draws attention to two kinds of cells which are differentiated by the eosin stain (1) There is a cell about the size of the white blood cell which contains several small deeply-stained nuclei HOFFMANN looks upon this as a polynucleated white cell. Such cells are seen in specimens of the blood from marked anæmia, especially that occurring in chronic nephritis (2) The other kind of cell is rarer but more striking. It shows a sharp outline and contains an area inside which is either unstained or only slightly stained. In this area there are several well-stained molecules of varying shape. Sometimes these molecules are so numerous as to fill the unstained area, but they mostly number from 2 to 5 These cells are larger than pus cells The author found them most abundantly in whooping-cough, but they are also present in other diseases. They are most often found in the sputum of children. They are rarely seen where eosinophile cells are present. In many forms of bronchitis, as well as in asthma, eosinophile cells are found, and HOFFMANN would look upon what he terms "eosinophile bronchitis" as an incomplete form of asthma. The second kind of cell described here is present in an acute bronchitis which has no relationship with asthma. Their origin is difficult to explain, but the author regards them as altered nuclei of the cylindrical epithelium of the bronchial tract.—*Brit. Med. Jour.*

PUBLIC AND SCHOOL HYGIENE AND PHILANTHROPY.

Mind upon the Brain.

In his psychological study of various forms of ills affecting the human brain, Dr. WILLIAM W. IRELAND maintains that the peculiar opportunities offered by a rapidly changing evolutionary nation form psychological monstrosities so wrapped up in themselves and their 'object' in view, that they are utterly apathetic to every one and everything else, as instanced by some of our proverbially self-made rich men who have developed a mania for money-making through stock speculations. Such persons soon lose all tastes for any civilised mode of entertaining one's self. The more they have the more they want. They have come to know but one enjoyment and have but one god, and these are more money-getting. Dr. P. C. REMONDINO supplements this with a curious tale of a commercial man who had neither Christian nor pagan philosophy sufficient to quietly accept success or suffer defeat. It was always either the elegan of victory or the mournful pibroch of defeat and calamity that sounded in his ear. Every serious loss was attended by as depressing an illness as every great gain by a fever due to too high exhilaration, and in the end a loss of a few thousand dollars which made no material difference in his affairs, forever stilled his restless life.—*Pac. Med. Jour.*

Care of the Teeth.

The following directions, taken from *The British Journal of Dental Science*, are evidently written by a practical man.

"In addition to the use of a suitable tooth-brush and tooth-powder on the teeth, there is no practice which commends itself so highly as the use of a piece of silk thread. It will take the average person some time to become expert in handling it, but when this is attained, it will be acknowledged the best toothpick and beautifier of teeth in the world. Cut off from the reel a piece of silk about fifteen inches long, which thoroughly wax. With the thumbs and forefingers carry the waxed floss silk into each space between the teeth, the remaining three fingers of each hand being used to hold on to the ends of the silk firmly. The thumb and forefinger of each hand, as they hold the silk, should be kept but a very little farther apart than the width of the teeth between which the silk is to be passed. Thorough tension of the silk must be kept up at all times. For the eight teeth on the left side of the upper jaw, pass the silk over the end of the left-hand thumb and over the end of the right-hand forefinger. Thus the palm of the right hand and the back of the thumb of the left hand will be toward the face. Hold firmly, slide it between the teeth with a gliding motion; carry it well down between the necks of the teeth and the free edges of the gums, but not in such a manner as to wound the latter, the pressure being properly brought against the teeth, not against the gums. Before sliding the silk from between the teeth, the silk may be rapidly drawn backward and forward on the necks of the teeth, thus polishing and preserving these surfaces, and "raking out" any deposits of food or incipient tartar which may be there. The silk should be slid from between the teeth with the same tension as when it is introduced between them, otherwise it will tear when the teeth are very close together. If this rule be observed and the silk still tears, it indicates one of several conditions—a cavity of decay, a scale of tartar, or a sharp point or jagged edge of the teeth, any of which conditions should be corrected by a reliable dentist."

[illegible]

A rather puzzling class of cases for obstetricians is that of delayed conception. Dr [illegible], in the *Revue Mensuelle*, October 30, analyzed about 400 cases of primaparous labor in wives married for several years and relatively mature. He favors the thirtieth year of the earliest proper to be included under the term of "maturity," or the *primaparæ agées* of the French system. It appears that in a genuine uncomplicated case of delayed impregnation the advent of the menstruation is always found to have occurred late in youth. Out of 401 such cases, menstruation was retarded till 20 in 39, till 24 in 4, and till 25 in 1. As to the retarded first pregnancy such complications as abortion, ectopic gestation, twins and special sexual mischief are relatively frequent. Above all, lingering labor is especially common, statistics even exceeding guesses and *a priori* reasoning in this respect. In 18 out of 27, noted by Dr Koninck, labor lasted from forty to fifty hours, the remaining labors being yet longer; one exceeded ninety hours. Feebleness of uterine contraction is absolute from first to last, and independent of any obstetrical combination. They also cause far more physical and mental exhaustion than the vigorous contractions of a young uterus, and at the same time are more painful. There are discrepancies in the "pains" seen in mature primaparæ of the same age, probably homologous with the great variations in the age of menopause observed in otherwise normal women. The uterus may be older in one woman aged 36 than in another of the same age. The forceps and other obstetrical operations are often required in the mature. Most of the above facts are easily explained. The excess of male infants borne by mature primaparæ (30 per cent.) is a less explicable phenomenon. Hecker considers the predominance of male infants as a speciality of all primaparæ, but Rumpf turns attention to the fact that in a family of children the predominance of males is commoner the further the mother is from her first menstrual period.—*Jour. Amer. Med. Assoc.*

Professional Secrecy in France.

The *New York Medical Journal* records a legal decision in the French court of appeal which is of great interest professionally. According to article 378 of the French penal code, a physician is forbidden to reveal any secrets confided to him, or of which he becomes cognizant, in the exercise of his profession. A married woman, applying for a divorce from her husband, sought permission to introduce in evidence certain letters addressed to her by Dr. Cordonnier, who had attended her husband, to show the nature of his malady. The court commenced by laying down that the physician does not exceed the limits of his rights when he informs by letter the wife of a man whose husband he is attending of the causes and nature of his disease. But it adds that these letters must not be divulged, even by agreement between the sender and the recipient; as the obligation to professional secrecy imposed by the law does not permit of his consenting to their publication. This rule permits of no exception, and must be applied even where the applicant for divorce wishes to put them in evidence as proof of her wrongs; for confidences which the interest of the patient can alone justify, must not, under any pretext, be used against him.

THERAPEUTICS AND PHARMACOLOGY.

Diet in the Treatment of Inebriety.

For a long time persons have urged that diet was the real remedy for inebriety. Yet, when it was applied in certain cases, no better results were obtained. The drink symptoms remained. Occasionally the change from a meat to a grain diet, or the reverse, was followed by the subsidence of all desire for spirits. In a continuous drinker a general diet of both meats and grains appears to meet the demands of a disordered nutrition and semi-starved condition better than any special articles of food. In the periodic cases an albuminous or proteid diet is often decidedly injurious. In some cases an intense craving for sweets or for starchy foods precedes the drink paroxysm, which subsides when the craze breaks out. The intimate relation between foods and the drink paroxysm is very prominent in many cases.

In some cases excessive meat eating is associated with great irritability and sensitiveness of the brain and nervous system. The change of diet is followed by a great improvement of mental activity. It would appear from a study of many cases that so far no general rule can be found, and each case must be studied from the facts of its history. Thus, in some cases a meat diet is literally poisonous, and its removal is the first essential for a cure. Again, a grain or fruit diet is clearly injurious, and more rapid recovery follows a change. In all cases states of starvation and antitoxications exist, the removal of which is of equal importance to that of spirits. The study of the diet brings out many unsuspected causes, which require removal and treatment before a cure can be effected.—*Health.*

Electricity in Incontinence of Urine.

Capeiati records a case of involuntary enuresis successfully treated by means of the currents introduced into medicine by Morton, of New York. These are known as induced static currents, and are furnished by the oscillatory discharge of Leyden jars connected with an electrical machine. The patient is not insulated, but is connected with one of the jars, while the other is connected with earth. The intensity of the current is regulated by merely altering the distance between the jars. Capeiati's patient was a previously healthy man of 35, who was gradually attacked by weakness and wasting in the left leg, with club-foot and exaggerated knee-jerk on that side. There was no reaction of degeneration, but incontinence of urine was very troublesome. The author considered the symptoms to point to a limited lesion of the spinal cord in the lumbar region. At first galvanism was tried with the kathode over the dorso-lumbar spine, and the anode on the perineum: this was continued for ten minutes daily for more than 20 days without any benefit resulting. Endo-urethral faradisation (Guyon) was next adopted, but was so painful that it had to be abandoned after two sittings. Finally Morton's currents were used in conjunction with the spino-perineal galvanisation. Immediate relief followed, and after the treatment had been carried out every other day for two months, cure was complete as regards the incontinence. As galvanisation by itself had proved ineffectual, the credit must be given entirely to the method of static induction. It was extremely well borne when used in the manner laid down by Bordier. A sound, the end of which formed an electrode, was introduced into the urethra as far as the sphincter of the bladder, and its free end was attached by a chain to one of the Leyden jars; the machine was regulated to give 2 to 3 sparks a second, and each sitting lasted 5 minutes.—*Brit. Med. Jour.*

Uranium Nitrates in Diabetes Mellitus.

As all the soluble and absorbable salts of uranium (which are destructive to protoplasm, all living tissues and even the vitality of the blood) are violent insidious poisons for which there is no known antidote, their use as medicine have not been much tested, since their introduction in 1874 in the treatment of diabetes; but FOSTER notices that amongst the earliest symptoms of poisoning by those salts are (1) glycosuria, (2) gastro enteritis, (3) nephrites like that of scarlet fever, (4) hæmorrhages into the heart and liver where death is escaped, (5) grave disturbances of nutrition and (6) excessive emaciation. Wherefore he thinks it is unsafe to begin with more than *one-sixth* of a grain of the nitrate three times daily.

J. W. DANIELS who has been most successful in treating *six* cases of glycosuria with uranium nitrate in initial doses of 1 grain gradually raised to 12 grains three times daily, thinks that in uranium nitrate we have a drug markedly superior to any derivative of opium and of unequaled value in different cases of diabetes. In fact he declares it to be the most efficient remedy thus far brought forward, and the larger the doses (that can be borne) administered the more satisfactory and the quicker the resultant cure.—*Pract.-Therap.*

Three American Drinks.

Raspberry Phosphate.

Dilute phosphoric acid	... ...	20 drops
Syrup of raspberry, about	... ...	1½ oz.

Ice-cold soda-water to fill a tumbler.

Imbibed through a couple of straws, it tickles the palate and refreshes the thirsty soul.

A more substantial drink, which is much used between meals, is—

Egg Lemonade.

The juice of two lemons		
Simple syrup, about	... ...	1½ oz.

Mix with one egg, beaten well up first; then add soda-water to fill tumbler.

This drink goes well upon hot days when the appetite is jaded. A few pieces of ice dropped in, of course, adds to the enjoyment of the draught.

Another drink largely consumed at the soda-fountain is—

Claret Cup.

Claret	... ...	2 oz.
The juice of one lemon		
Simple syrup, about	... ...	1½ oz.
Soda-water to fill a tumbler		

Add a few pieces of ice, and suck through a straw.—*C. D.*

Therapeutic Brevities.

1. BEHRENS declares that in place of being a normal constituent of hops, Trimethylamine is the result of bacterial fermentation.—*Jour Chem. Soc.*

2. If women use themselves to it by bathing every day for 8 days before the period, DEPAGE says the cold bath during menstruation is a beneficial measure and HENZEL finds that cold salt-water baths facilitate the menstrual flow, prolong genital life and increase fecundity.—*Lancet-Clinic.*

3. Quinine muriate dissolved in 90 parts of distilled water, is recommended by HORN as an absolutely effective nasal-douche in *all* cases of acute catarrh.—*Pharm. Zeit.*

Correspondence.

MEDICAL ADVERTISING IN INDIA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Advertising by medical men in India is becoming very common. Assistant Surgeons and even graduates of British Universities, (who ought to know better), are not ashamed to bring themselves into public notice by means of placards, which to say the least of it is a practice, totally disgraceful and too humiliating to the members of the profession, which is the noblest profession in the world. A graduate of a British University by so doing not only degrades himself in the eyes of the *knowing* public, but brings into disgrace his *alma mater*.

I think that the time has now come, and it is none too soon, when that great body the Indian Medical Association, should come to the rescue of the profession by bringing the defaulters to the notice of the university authorities and the General Medical Council of Great Britain, and by thus exposing them, uphold the honor and dignity of the medical profession.

Here is a copy of a placard which has been put up on all the principal roads and at all the public places in Lucknow. I also beg to enclose literal translation of an Urdu notice which has been freely circulated in the city.

Dr. M. S. VARIS, M.B., C.M., Edin.

Consulting Physician, and Surgeon. Consultation all Hours. Free, 9-11 A.M. Share Darvoza.

NOTICE.

Dr. SAYAD MAHOMED VARIS, Surgeon!

"Good news to thee O! heart, a Jesus like man has come"

"Be it known to the seekers after bodily health, and to those in the clutches of deadly diseases, that the ARISTOTLE of the times, and GALEN of the universe, Dr. SAYAD MAHOMED VARIS, M.B., C.M., after learning the art of medicine and practising it in Great Britain, has come to this town (Lucknow). He studied for 6 or 7 years in modern Athens, viz., Edinburgh, which is the Capital of Scotland, and he obtained the Diploma of a Physician and Surgeon, and there for three years he established himself in practice and performed Christ-like miracles."

"It is our good fortune that he has established himself here. It is hoped that whosoever will apply to him for treatment, will fill his pockets with pearls of health. He lives close to Kaisar Bag near Share Darvoza, opposite the Telegraph Office, in house, No. I. Patients can consult him all day."

Criticism is needless, we know what all this means.

There is another gentlemen in Lucknow who is advertising himself extensively in the "Indian Advocate." He is an M.D., B.Sc., whether of a University in Great Britain or of a *bogus* American University is unknown. His name is DR. BHAGWANDIN.

Here is another shocking case of medical advertising, cut from the Lahore *Tribune* of the 18th August 1898:—

MEDICAL NOTICE.

PUNJAB PHARMACY,

DR. JAI SINGH & SONS, Retail & Wholesale Chemists & Druggists.

Head Office removed to new premises in Anarkali opposite Students' Own Agency and Lala Narpat Rai and Devi Dass.

Old business premises the same, Wachhowali, City.

Large Stock just arrived from England.

Dispensing and Order Supplying Department open all day and night.

Most varied assortment of superior spices and medical requisites and sundries in Stock.

Dr. B. L. Dhingra, M.D., M.R.C.S., L.R.C.P., is using the late Dr. Jai Singh's Consulting Room in the City Dispensary, Wachhowali, for morning consultation (7 to 9 A.M.) He will with the view of helping the business of a departed colleague give the benefit of his advice and general supervision to both the branches.

Sohan Singh, Manager.

Hoping that you will kindly bring this rather serious affair to the notice of the Indian Medical Association, and publish this letter in full in the *Indian Medical Record* for general information.

Yours &c., A British Graduate.

Lucknow, *25th September, 1898.*

(Neither Mr. Varis nor Mr. Bhagwandin has his name on the British Medical Register, but Mr. Beharl Lal Dhingra is registered M.R.C.S. Eng., and L.R.C.P. Lond. 1896, we hereby call upon these gentlemen to immediately stop these advertisements, or this conduct on their part will be brought to the notice of the General Medical Council of Great Britain.—Ed., *I. M. R.*)

:o:

MEDICAL WARRANT OFFICERS.

To the Editor, "Indian Medical Record."

Sir,—I am amused to find in the last issue of your esteemed journal, a correspondent so "logically" protesting against my suggestion, or as he is pleased to call "contention" for placing the designations of Medical Warrant Officers on a par with other departmental officers of similar rank. My suggestion has had the approval of several of my colleagues with whom I have had the opportunity of discussing the subject, and therefore your correspondent may now disillusionize himself as to my—"voice being representative of any material section of us" Common sense should tell him that the suggestion is neither an "absurd" nor "pitiable delusion." On the other hand his argument against it and his nonsensical allusions to boatswains, carpenters, head cooks, cabbies &c., are quite beside the question; they make me smile! Why, according to his standard of thinking, the designations of officers of any department of the State may be made "suggestive" of anything absurd by a depraved flight of imagination. Take for instance the military rank of Captain, is it not also suggestive of miners, mariners, acrobats &c.? The Civil Service designation of Collector, may it not be made suggestive of bill-collectors, ticket-collectors, peons &c.,? And those of Inspector, Commissioner,—of latrines, filth-carts, sweepers &c.; and so on *ad lib*? I am sorry also to find his equanimity being perturbed by vain imaginings of such bosh as of "enemies laughing in their sleeves and chuckling over the belief that they have only to give us rope enough to see us hang ourselves." Now this, Sir, is real pitiable delusion! I say emphatically that I do not believe that we have any enemies at all, nor do I see reason why any body in the world should care to pose as our enemies. We all know of course that we once "struggled," and rightly struggled too to be rid of the designation of Apothecary, and even at that early period my idea was that if a change were made it should be in keeping with the military designation of the sister services; but at that time there was not the slightest hope of its realisation. Now however the time has come, and under the circumstance what could be more appropriate, far reaching, and sensible than the designations suggested, which have had the "military ring" in them from time immemorial?

It is news to me to be informed by your correspondent that the designation Assistant Surgeon has a—"splendid history attaching to its past;" and also that it implies something "honourable." If so why does not the Government acknowledge it?

In conclusion, Sir, allow me to assure you that if you are not "flooded by indignant protests" against my common sense proposals, it will not be from any "unfortunate and chronic apathy" on the part of members of my department.

Yours &c., P.

(We heartily disapprove of our esteemed correspondent's ideas on this subject. We published his letters simply to allow an expression to all shades of opinion. Medical men cannot be dubbed "conductors." The new I. M. S. Warrant shatters P's notions.—Ed., *I. M. R.*)

:o:

DISTRIBUTION OF MILITARY ASSISTANT SURGEONS TO APPOINTMENTS OF A STAFF NATURE.

To the Editor, "Indian Medical Record."

Sir,—Will you kindly give the following grievance a place in an early issue of your highly esteemed paper, in order that it may meet the eyes of those who are responsible for selecting members of the I.S.M.D. to appointments of a staff nature, with a hope that these may be given to whom they are due, and not, as at present, to the juniors in a district, thereby causing an ill feeling in the service.

Looking at paragraph 55 of the Army Regulations, India, Volume VI, Medical, it is distinctly laid down that these appointments are to be made according to seniority; and if we as subordinates have to go by regulations, why not our superior officers? It is rather hard for a man who has toiled for years in the service, getting a comparatively small salary of Rupees 110, with a family to support, to be deprived of a just claim, and a junior of three years standing to have priority, whose salary is increased from Rupees 60 or 85 to Rupees 115, and more.

It has fallen to my lot to be debarred from getting such appointments when a junior, and again to be similarly treated as a senior, is, I can assure you, hard lines.

Yours &c., Fair Play.

:o:

UNQUALIFIED RAILWAY MEDICAL OFFICIALS.

To the Editor, "Indian Medical Record."

Sir,—I beg to bring to the notice of the Association in the interest of the medical profession in general, that we have in India many non-professional men holding appointments through influence only.

This matter I think ought to be taken up by the Council for the benefit of deserving men. These quacks must be put down.

I am informed that Dr.————Medical Officer of the R. M. Ry. is one of them. He does not hold a diploma and his medical knowledge is very poor. I am told he is a dentist. It is also stated that his evidence in a court of justice in a recent murder case was not taken, he not being a legally qualified medical man.

I therefore suggest that the Agent of the B. B. and C. I. Ry., and R. M. Ry. be addressed to call upon Dr.———— to produce his medical qualifications.

Yours &c., A RAILWAY MEDICAL MAN.

(You are absolutely misinformed with regard to the medical man in question. He is L.R.C.P. and S. Edinburgh (1879) and is duly registered. ED. I. M. R.)

———:o:———

THE CIVIL ASSISTANT SURGEONS OF BOMBAY.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Paras 7 and 8 of the recent Government of India Resolution anent the Civil Assistant Surgeons, require a few comments as far as they apply to Assistant Surgeons in the Bombay Presidency. Para 7 sanctions 4 appointments for Assistant Surgeons in the first class of the new scale on Rs. 350 (Rs. 300 pay with Rs. 50 allowances) mars the concession by insisting upon a limit of 21 years' service. This limitation tends to restrict unduly the selection of officers to the senior grade and this, in fact, is the ground on which the Government of India have decided *not* to insist on a limitation of 7 years' service to be passed in the Rs. 200 grade before further promotions in the case of Assistant Surgeons of Bengal and other Provinces. If, therefore, it is really desired to benefit the Assistant Surgeon of the Bombay Presidency, four of them now in the first grade of the new scale should be promoted at once to the newly created senior grade.

Para 8 lays down the number of Civil Surgeoncies allowed to each province. The allotment for Bombay is not only too small but also out of proportion with the rest of the provinces, notably Madras and the Punjab, the former of which is allowed five and the latter three, whereas Bombay is allowed only two. It is to be hoped that this number will be increased at once to at least four. It is not stated anywhere in the G. R. what period of service will be necessary for promotion to a Civil Surgeoncy. In the case of Bombay these appointments ought to be given to the first-grade men of the new scale. Those of the old scale have, comparatively speaking, been better paid and their pension prospects have now been improved, so they should be content with drawing their Rs. 350 p. m. to the end of their service. A comparison of the new and the old scale of pay will make this point clear.

	Old Scale.		New Scale.	
	Pay and Allowances.		Pay and Allowances.	
	Rs.	Rs.	Rs.	Rs.
1st Class	200	150	200	50
2nd "	150	150	150	35
3rd "	100	100	100	20

Promotion to these grades is by septennial periods.

Yours &c., BOMBAY A. S.

LIME JUICE AND GLYCERINE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Will you kindly let me know how many ounces I should reckon upon for *one pint* in the following prescription, and also how many ounces I should take for *one pound* in the same formula. I refer to the items of "Castor oil" and "Almond oil" respectively.

Cera Alba	...	...	3 ozs.
Castor oil	...	...	1 pint.
Almond oil	...	...	2½ lbs.
Acid citric	...	...	2 ozs. 2 drs.
Aquæ	...	...	24 ozs.
Glycerine	...	...	8 ozs.
Ol. Limonis	...	...	4 ozs, 2 drs.
Spt. Vin rect	...	...	5 ozs & 6 drs.
Ol. Bergamot	...	...	½ ozs. & ½ drs.
Ol. Geranium	...	...	½ drs.

Mft. all the three ingredients.

How would the above prescription be dispensed? I was given this formula by a friend who said that the above is a nice preparation for the hair, and is called "Lime Juice & Glycerine." The preparation he told me was excellent and very refreshing when applied to the head. It has a very creamy appearance.

Thanking you for a reply through the medium of your paper.

Yours &c., R. SMITH.

(Pint would mean 20 oz and lb 16 oz.—ED., *I. M. R.*)

———:o:———

HIGHLY PLACED ANGLO-INDIANS IN THE BOMBAY PRESIDENCY.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—These few names will add to the increasing list of "Highly-placed Anglo-Indians" appearing in your Journal. Some of these names have been taken from the *Anglo-Indian Journal* of Bombay.

Edward Vander Straaton, Judge, Court of Small Causes, Karachi.
H. F. Carvalho, City Magistrate, Poona.
Charles Southey Marston, Deputy Collector, Sind Commission.
Benjamin Bradford, Deputy Collector, Hyderabad, Sind.
Archibald Henry Mullen, Surgn. Captain, I.M.S., Bombay.
Dr. Ed. Freeman Underwood, M.A., M.D., Ph.D., etc.
Dr. C. H. Freeman Underwood, L.R.C.P. & S. Edin.
Dr. H. L. C. Sietz, M.D.
Dr. C. R. Marrett, M.B., C.M.
Dr. George Sinclair, M.B., Durbar Surgeon, Kolhapur.
Dr. Charles Spooner, M.R.C.S.
Dr. Alan Hawkins, M.R.C.S., etc.
Rev. Charles Gilder.
Mr. Fred Rowland, Merchant.
Rev. R. Spooner, S.P.G.
Mr. H. R. Wilcox, Civil Engineer and Surveyor.
Mr. Fred. S. Llewllyn, T. S. Nizam's State Railway.
Rev. G. K. Gilder, Presiding Elder, M.E. Church, Raipur.
Mr. Rowland Maidment, Assistant Collector of Customs.
Mr. W. A. Blunt, Dy. Supdt., H. M's Customs.
Capt. J. F. Raffin, Master Mariner, Merchant Service.
Capt. Geo. Baldwin, Master Mariner, Merchant Service.
Mr. Alexr. R. Lester, Chief Assistant Presy. Magist. Court.

Thomas Mess, Examiner, P. W. Accts.
J. W. Fordham, do.
Samuel Brock, do.
Sherlock Hubbard, do.
Walter Newman, do.
S. J. Wood, do.
G. W. Billings, do.
Andrew Cowley, do.
A. Conduitt, do.
Alfred Grant, do.
D. Gantz, Dy. Examiner, P. W. A.
J. E. Lacey, do.
J. E. Crisp, do.
F. A. Moore, do.
E. Swetenham, do.
E. French, do.
E. Anthony, do.
C. W. Priestly, Assist. Secy., P. W. D., N. W. P.
W. B. Butterfield, do.
C. H. Sampson, do.
J. E. Cooke, Auditor General, Financial Department.
Simpson Byrne do. do.
—R. Anthony, Dy. Acctt.-General, Financial Dept.
D. G. Burbridge Asst. do. do.
J. G. Firth, Deputy Collector, Madras Presidency.
E. Firth, Chief Auditor, B. B. and C. I. Railway.
A. Firth, Examiner of P. O. Rajputana.
H. D. Theobald, Ditto.

Yours &c., W. H. T.

KARACHI, *17th September, 1898.*

———:o:———

IMPROVING (?) THE PROSPECTS OF CIVIL ASSISTANT SURGEONS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The new rules published in the *India Gazette* improving the prospects of the Assistant Surgeons do not at all improve the prospects of the Assistant Surgeons in the Bombay Presidency, if anything they spoil the prospects of the future Assistant Surgeons in Bombay.

As it is, an Assistant Surgeon in charge of a Dispensary in Bombay draws Rs. 120, 185, and 250 according as he is of the 3rd, 2nd, or 1st grade. There was never any unemployed pay of Rs. 50 as seems to be the case elsewhere.

According to the new rules he will draw Rs. 100, 150 and 200 only, thus losing all the allowances that he gets. Moreover before he begins to draw Rs. 200 as 1st grade pay, he will have to satisfy the whims of the Inspector General of Hospitals who will allow a 2nd grade Assistant Surgeon to appear for his 1st. grade examination, only if he thinks proper. This means that there will be more 2nd grade Assistant Surgeons rotting on Rs. 150 perhaps for their whole term of service, than at present exist. This clause is apparently meant to make a saving to Government, for the paltry increase they have granted in the shape of Rs. 300 to Senior Assistant Surgeons who will only be promoted by *selection*, which means that *men with back door influence* will be given the highest pay of Rs. 300, and as only ten per cent. will be given the senior grade, it means that only four or five at the utmost will be fortunate enough to get increased pay.

The whole Bombay service has lost all the allowances apparently for the sake of 4 or 5 influential men getting Rs. 50 increase to their pay.

You will thus see, Sir, that the Bombay Presidency has lost in place of gaining any benefits after all the agitation carried on for such a long time.

It can only be hoped that our good and kind Surgeon General, Dr. Bainbridge, will properly represent our case to the powers shortly and secure to us privileges and promotion befitting our education and industry.

Yours &c., MEDICUS.

(If this statement of matters be correct, Bombay Assistant Surgeons have serious grounds for not blessing the *new* prospects.—ED., I. M. R.)

———:o:———

THE CALCUTTA GENERAL HOSPITAL.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—I am only a woman and have no knowledge of medicine nor do I know the difference between doctors and doctors, nor have I much experience of hospitals, but I have read a good deal lately in the papers against the Calcutta General Hospital, against its management, its arrangements, its dietary, its nurses and also against its doctors. Now I do not think I can honestly praise the dieting or the nursing for both are bad, but I do wish to say a word for the *doctor* under whose care my husband was, during a few weeks of very painful and serious illness. I refer to DR. PILGRIM. No one could have been kinder or more considerate in all that concerned my husband's treatment and care while he was in the Calcutta General Hospital. It has been said that the doctors of this hospital are not willing to consult with private doctors over cases in the hospital. Well I wish to deny this, for when an operation was suggested by DR. PILGRIM, in my husband's case, I asked whether I could have the opinion of two private physicians and I named them to Dr. PILGRIM. He at once said that I could call in any doctor I pleased in consultation. However as it seemed settled that my husband must undergo the operation, and we were both most timid and alarmed about it, I removed him from hospital for outside treatment, and DR. PILGRIM very kindly gave me a statement of my husband's case for the doctor to whose care I was transferring him.

I cannot sufficiently thank DR. PILGRIM for his goodness to my husband, and I only hope should I ever have occasion to enter the General Hospital that I shall be fortunate enough to come under his kindly medical care.

Yours &c., A. M. B.

CALCUTTA, 20th September, 1898.

(We are most happy to publish this lady's letter and we trust the fullest publicity will be given to the grateful recognition she desires to offer to the physician who had charge of her husband's case in the Presidency General Hospital. We happen to be personally acquainted with the facts of this case, and gladly substantiate what has been written above. The patient referred to died the very day he left the hospital.—ED, I. M. R.)

INSANITARY HOVELS IN CALCUTTA BASTIS.

To the Editor, "Indian Medical Record."

Sir,—Will you kindly publish in your esteemed journal the following correspondence from the *Englishman*, to whom it was sent by Mr. W. C. Madge :—

"No city is safe unless its individual residences are healthy, and among these it is the humblest dwellings that claim attention first, not only in the interest of their own occupants but also in those of the wealthier inhabitants. Official municipal sanitation in Calcutta has hitherto reversed the course of all true reform, which is from the particular to the general. It has projected great and good plans wholesale on the city, trusting to Providence to make them reach the individual home. The result is a water-supply which is almost perfect, a drainage of much mixed virtue, and an improved death-rate tempered with stings of plague spots enough to cover the whole city with pestilence under quite possible conditions.

People are now paying from Rs. 3 to Rs. 5 a month for accommodation that is absolutely insanitary, and ought to be condemned as uninhabitable, while from 10 to 20 human beings are paying from Re. 1-8 to Re. 1 a month for their share, varying from one-tenth to one-twentieth, of compartments which ought to be denounced as unfit for human habitation, but in which the occupants lie down at night on damp floors side by side like sardines in a box. Even where, as in some others, the packing is less close, the superficial area and cubic feet of air allowed for each are so much less than those insisted on for convicts in jails that the wonder is that the victims escape, if they do escape, destructive disease. It is surely the simple duty of somebody to find out what is the best rent rate payable by the labouring and menial classes out of their wages, and to prove whether Calcutta is or is not a city in which a poor man can exist without falling a victim to preventible disease. The labouring population is fluctuating, to a larger extent, perhaps, than is generally suspected, because of constant decimation by disease, beginning here but ending elsewhere, and so avoiding the statistical net ; but its tides as well as its other phenomena need not baffle study, if serious and earnest students can be found. Any sustained efforts, carefully placed outside our familiar spasmodic movements dignified with big names and ending in small facts, would in a very few years show whether the margin of profit from the rent of the worse type of tenements will admit of some portion of it being diverted to the improvement of the tenements. I believe that there is such a margin. If there is not, Calcutta is a doomed city, a final flight from which becomes merely a question of time. But with this margin established, legal compulsion would be justified.

Some might think it better for private enterprise than for the Corporation to enlist in this work. If the private native wealth of Calcutta—for its European wealth is fleeting—were lighted up with the far-seeing philanthrophy which has reclaimed so many of the foulest dens of London, to the advantage of both landlord and tenant, it might not be necessary for the Legislature to move in the matter. But the economic conditions of Calcutta vary radically from those of any English city while the demonstrable profit from investment of the kind referred to, though ample enough to justify public expenditure on public grounds, may yet not be attractive enough for speculators. Municipal authority may also in a city like Calcutta be needed to set up and keep going certain reforms in the state of solution in which most municipal interests now are, and will for some time continue to be. Will the enlightened English sanitary conscience, of which so much boast has of late (I do not say unjustly) been made in the face of Asiatic ignorance and prejudice, allow the municipal Law of Calcutta to be once more amended without making any effort to introduce provisions under which the Corporation (1) may, if necessary, prove by experiment what is the cheapest style of dwelling in which it is possible for human beings to live safely in Calcutta, and (2) shall, under severe penalties, prohibit the erection of any worse style of tenement in any part of the city ?

This is surely an eminently practical question."

Yours &c., A. Layman.

———:o:———

WHO ARE THE WARRANT OFFICERS OF THE INDIAN ARMY MEDICAL CORPS ?

To the Editor, "Indian Medical Record."

Sir,—Having read in your issue of the 16th August 1898, the above extraordinary heading, my curiosity was greatly excited and I perused the whole article carefully, with much disgust. (1) The designation—Indian Subordinate Medical Department is a good one ; probably the only bitter almond being the word *subordinate*. I am of opinion that it is well to leave this alone, only suggesting to those who cannot bear the sting of being styled subordinates, to try and get into the higher grades, or to find for themselves more congenial appointments.

(2) The proposal of our worthy friend P. to introduce Deputy Commissaries, Conductors and Sub-Conductors into a purely medical branch of the service is uncalled for. The public would soon run away with the idea that we were Conductors or Sub-Conductors, &c. of the Bombay Tramway Company, and not the Assistant Surgeons of old.

(3) I would kindly suggest to members to write about our two main grievances, *i.e.* enhanced rates of pay and suitable quarters. These two demands are of paramount importance and require the most urgent attention of the Director-General and the Government of India. Now, that the Civil Assistant Surgeons' question has been settled, I hope Government will see their way to relieving the existing state of bankruptcy now felt by the Military Assistant Surgeons

(4) I have yet one small grievance to bring to the notice of the Director-General. It is a well established fact that the members of the Military Assistant Surgeon class in Bombay have a very few civil appointments: about twenty in all, and these are not plums. Yet I see that one of these appointments has lately been filled up by a Military Assistant Surgeon from Bengal, if this is only to be as a temporary measure, owing to the incidence of famine, plague, and frontier troubles, it calls

for no alarm, but should this practice become prevalent, the Military Assistant Surgeons on the Bombay side must eventually fare very badly. I for one cannot believe that this practice will be brought into force by our present benevolent Director-General, who I am sure will consider the question favorably and go into the existing state of affairs on this the Western side of India, and in due course open out more suitable appointments for a hard worked branch of the service.

Yours &c., A Military Assistant Surgeon.

Byculla, *9th September 1898.*

———:o:———

LONG SUFFERING HOSPITAL ASSISTANTS.

To the Editor, "Indian Medical Record."

Sir,—Let me congratulate you and the Indian Medical Association for your persistent efforts to improve the condition of the local medical service and the partial successes which have crowned your efforts as far as the upper two classes (Apothecary and Assistant Surgeons) are concerned. It now remains for you and the Association to see that the miserable condition of the poor Hospital Assistants is improved and their grievances, regarding pay, prospects, status, and last, but not least, change of designation, considered. In the Educational, Engineering, Police and Telegraph Department, they have Inspectors, sub-Inspectors, Assistant sub-Inspectors; Overseer, sub-overseer, no designation will be more suitable and appropriate than sub-Assistant Surgeon for this class of subordinates. The term Hospital Assistant now in vogue is a misnomer, a ward boy and a compounder or dresser are all hospitals assistants in the true sense of the word. I hope and request that the Indian Medical Association, will be pleased to approach the Government of India with a reminder for the immediate, just and generous redress of our grievances and that His Excellency, the present Viceroy will do something before he leaves India.

Thanking you and the Association very much in anticipation.

Yours &c., R. D. Sinha.

———:o:———

WHO IS IN CHARGE?

To the Editor, "Indian Medical Record."

Sir,—Perhaps it may not be out of place mid all the changes in progress, to broach the subject of "Medical charges."

In the latter phases of the struggles of the R. A. M. Corps, it must have been the experience of many of our Assistant Surgeons in subordinate medical charges as it has been mine, to be corrected for writing "in medical charge" under the designation of officers in that capacity, according to regulations, the very pertinent question being put, "If I am only in medical charge who else here is in any other charge?" The only acceptable style is to write the Medical Officer in charge at the headings of official correspondence and at the foot under this rank and signature "In charge Station Hospital."

Now in cases where Assistant Surgeons are in charge of rest camps and such other detached outposts, the regulations very expressly lay down and reiterate that they are not in medical charge, but in "sub-medical charge" or "attached to" as the case may be. The question naturally arises who is in "medical charge"? and since the qualifying adjective is objectionable, as derogatory to those it is supposed to apply to, this insistence upon seeing that the omnivorous subordinate is not allowed to monopolise it, seems a very dog-in-the-manger business.

Yours &c., "Puzzled."

———:o:———

FROM BAD TO WORSE. WHAT NEXT?

To the Editor, "Indian Medical Record"

Sir,—Your issues of the 16th August and 1st September, were received by me almost together, the former having gone astray for a while. The suggestion advanced by "P" in it, for changes in the ranks of the I. S. M. D. from Assistant Surgeon to Deputy Commissary, Conductor &c., are so utterly ridiculous as to be unworthy of comment. "An old Assistant Surgeon" in the subsequent issue (1st September) laments our unfortunate apathy in not flooding you with protests against "P's" proposal. It is not apathy, dear Mr. Editor, that keeps you from being flooded with protests, but the knowledge that such perverse ebullitions are not likely to be seriously considered and are best treated with ridicule or silent contempt.

Yours &c. Another Assistant Surgeon.

Book Reviews.

SHEWSBURY: A ROMANCE.

By Stanley J. Weyman.

Author of "A Gentleman of France"; "Under the Red Robe", "The House of the Wolf," &c.

(*Longman's Colonial Library*)

Mr. Weyman is a writer who can never fail to enchain and delight his readers, and his latest work, it may safely be affirmed, is no exception to the rule. We refrain, from obvious reasons, from retailing the story, which, it may be, observed, is one of the days of the English Revolution and the Rebellion afloat about that time. The illustrations—twenty-four in number—are from the pen of that rising young artist, Mr. Claud A. Shepperson.

COMFORT AND CLEANLINESS? THE SERVANT AND MISTRESS QUESTION.

By Mrs. Catherine, M. Buckton,

Author of Health in the House, &c.

(Publishers: Longmans Green & Co., pages 96; Woodcuts; price 2s.)

This practical little brochure is certain to prove exceedingly useful to house-keepers at home. Chapters are

devoted to the ventilation, lighting, and sanitation of the house, kitchen, and area, while, some very important hints are given on cleaning out, &c.

SCIENTIFIC METHOD IN BIOLOGY.

By Elizabeth Blackwell, M.D.

(Publisher : Elliot Stock, London, pages 80.)

How far the guidance of conscience can extend, in relation of the methods employed in investigating biological phenomena, with the practical results to medical research involved in the recognition of such guidance, form the subject of the booklet before us. The chapter on restriction of experiment, is more or less a plea against vivisection and other experimentalising on the lower animals. Such being the case the views of the authoress are set forth gracefully and sympathetically.

ESSENTIALS OF EXPERIMENTAL PHYSIOLOGY.

By T. G. Brodie, M.D.

Lecturer on Physiology, St. Thomas' Hospital Medical School.

Publishers : Longmans Green and Co.,

(Pages 229 ; Price 6*s.* 6*d.*)

This work contains, for the benefit of the student community, a succinct account of such operations as may be carried out by students in their class rooms, as well as a selection of experiments suitable for demonstration in class. It is profusely illustrated, and the cuts, it may be observed, are original ones.

Government Medical Gazettes.

GOVERNMENT OF INDIA.

Lieut.-Col.-James Joseph Moran, M.D., I. M. S. (Madras), has been permitted to retire from the service, from 10th Oct. 1898.

Hony. Capt. George Henry Cambell, I. S. M. D. (Bengal), is permitted to retire from the service.

Hony. Surgn.-Capt. William Marcus Mitchell, I. S. M. D., (Bengal), is permitted to retire from the service.

Brig.-Surgn.-Lieut.-Col. C. W. Carr-Calthrop, M.D., I. M. S. Bengal Estb. is granted the tempy. rank of Surgn.-Col. from 15th Aug. 1898.

The services of Surgn.-Major W. B. Bannerman, M.D., I. M. S. (Madras), are replaced at the disposal of the Govt. of Madras.

" The undermentioned probationers for the I. M. S. have been apptd. Surgn.-Lieuts. from the 27th July 1898 :—

Thomas Hunter, (Bengal); Walter Rothney Battye, (Punjab); Harold Budgett Meakin, (Bengal); George Hutcheson, (Punjab); William Glen Liston, (Madras); Harold Boulton, (Punjab); Richard William Anthoney, (Bomay); Earnest Frederick Gordon Tucker, (Bombay); George Edward Stewart, (Bombay); Frank Stuart Corbitt Thompson, (Bombay); Thomas Shepherd Novis, (Bombay); John William Watson, (Bombay); Herbert Joseph Richard Twigg, (Bombay); Charles William McGillicuddy Orpen (Bombay).

Asst. Surgn. John Goldsmith to be first-class Asst. Surgn. from 16th July 1898.

Asst. Surgn. and Hony. Surgn. Alfred Birthright Eates, to be Senior Asst. Surgn. with Hony. rank of Surgn. Capt.

Asst. Surgn. Henry D'Lacy to be Senior Asst. Surgn. with hony. rank of Surgn.-Lieut.

Asst. Surgn. Samuel George Dingavan to be first-class Asst. Surgn. Asst. Surgn. John Vincent James to be second-class Asst. Surgn. from 22nd July 1898.

BENGAL GOVERNMENT.

The services of Dr. W. A. Justice, M. B., C. M., are temply. placed at the disposal of the Inspr. Genl. of Civil Hospa., Bengal.

Asst. Surgn. Ras Behari Moitra, to Tikari dispy. Gaya dist.

Asst. Surgn. Narendro Nath Basu, House Surgn. 1st. Surgeon's Ward, Medl Coll. Hosp. to be, House Surgn., Eden Hosp.

Asst. Surgn. Nobin Chunder Dutt, Darbhanga Raj Hosp, leave for three months,

Asst. Surgn. Surat Lal Basu, to Darbhanga Raj Hosp.

Brig.-Surgn.-Col. F. A. retired) to act as Civil Surgn. of Darbhanga

Surgn.-Capt. B. H. Deare to be Deputy Sany. Commr.

PUNJAB GOVERNMENT.

The services of Asst Surgn. Lala Abnashi Ram, Karnal Dispy., are placed at the disposal of the Govt. of India, Foreign Dept., from 11th Aug. 1898.

Capt. D. M. Davidson, M. B., who was placed on special duty by Punjab Govt., was employed on plague duty, Jullundur Dist., from 26th Nov. 1897.

Surgn.-Capt. A. W. T. Buist, Offg. Civil Surgn., privilege leave for 50 days, from 2nd July 1898.

Surgn.-Capt. Buist assumed charge of Offg. Civil Surgncy., Delhi, and Supdt. Lunatic Asylum, 20th Aug. 1898.

Surgn.-Major S. Little assumed charge Civil Med. duties, Rawalpindi Dist. 30th Aug. 1898.

Surgn.-Major G. W. P. Dennys resumed charge of his duties as Civil Surgn. Sialkot. 8th Sept. 1898.

CENTRAL PROVINCES GOVERNMENT.

Asst. Surgn. and Hony. Surgn. Capt. W. M. Mitchell, M. D., Bengal Estab. to be granted the hony. rank of Surgn.-Major, 17th Aug. 1898.

Hosp. Asst. Surgn. Dranath Chakravarti, doing duty under Civil Surgn., Saugor, to Police Hospl. Saugor.

Hosp. Asst. Ramkrishna Balwnat, Betul Branch Dispy. Betul Dist., three months' privilege leave.

Hosp. Asst. C. K Ranganadam, doing duty under Civil Surgn., Nagpur, to Betul Branch Dispy.

Hosp. Asst. Pandurang Lakshman, Jail and Police Hospls. Chhindwara, two months' privilege leave from 6th instant.

Hosp. Asst. Bhagwan Das, Main Dispy., Chhindwara, to hold charge, Jail and Police Hospls.

Hosp. Asst. Vithal Anand Rao, doing duty under Civil Surgn., Nimar. to Mandhatta Branch Dispy., Nimar Dist.

Hosp. Asst. Abdul Karim, Mandhatta Dispy., to Arung Dispy., Raipur Dist.

Hosp. Asst. Shaikh Wali Muhammad, Arung Dispy. to Jail and Police Hosp., Betul.

Hosp. Asst. Nand Kishore to Jail and Police Hosp. Chhindwara.

Hosp. Asst. Narayan Vinayak, doing duty under Civil Surgn. of Bilaspur, to Janjgir Branch Dispy., Bilaspur Dist.

Hosp. Asst. Kaluram, to do duty under Civil Surgn. of Raipur.

N.-W. P. AND OUDH GOVERNMENT.

Asst. Surgn. E. H. Thomas, Offg Lecturer on Materia Medica, Med. School, and in charge of Thomason Hosp., Agra, to Sadar Dispy., Dehra Dun.

Asst. Surgn. Sri Ram, to reserve duty at Gorakhpur.

Asst. Surgn. Sri Ram from Reserve duty at Gorakhpur to that at Lucknow.

G. O. C. C.

Surgn.-Capt. L. E. Parry, M. B., to the medical charge of the 96th Bengal Infantry.

Asst Surgn. A. A. W. Watts, leave for four months, on medical certificate.

BURMA GOVERNMENT.

Asst. Surgn. Bhagwan Das made over, and Asst. Surgn. F. Bradley assumed, charge Civil Surgncy. of the Upper Chindwin dist., 5th Sept, 1898.

Asst. Surgn. E. G. C. Prins, assumed charge Genl. Hosp., Rangoon, 26th Aug. 1898.

Hosp. Asst. T. L. Thomas, three months' privilege leave, 15th July 1898.

Hosp. Asst. Maula Buksh, assumed charge, Mily. Police Hosp. Myithyina, 2nd Sept. 1898.

Hosp. Asst. Hem Chundra Koyal, assumed charge, Civil Hosp., Maungdaw, Akyab dist., 27th Aug. 1898.

Hosp. Asst. Radhnath Singh, two months' privilege leave, 8th Sept. 1898.

Hosp. Asst. M. Henry Peter assumed charge. Civil Hosp., Mogaung, 8th Sept. 1898.

Hosp. Asst. F. A. Francis, assumed charge, Mily. Police Hosp., Mogok, Ruby Mines dist., 8th Aug. 1898.

Hosp. Asst. Gajan Singh, assumed charge, Mily. Police Hosp., Kindat, Upper Chindwin dist., 25th Aug. 1898.

Hosp. Asst. Gajan Singh, assumed charge. Outpost Hosp., Kalewa, 31st Aug. 1898.

Hosp. Asst. M. Thungavelu Mudeliar, to Mogaung, Mandalay, 4th Sept. 1898.

Hosp. Asst. M. Thaungavelu Mudeliar made over, and Hosp. Asst. Maung Tun U, assumed charge of additional duties, Look-up, Mandalay, 5th Sept. 1898.

Hosp. Asst. Jeet Singh, relinquished charge, Mily. Police Hosp., Myitkyina, 7th Sept 1898.

Hosp. Asst. N. Subbiah Pillay, leave for three months and 23 days from 25th April 1898.

Hosp. Asst N. Subbiah Pillay, assumed charge, Jail Hosp., Rangoon, 17th Aug. 1898.

C. Gosh is appointed on probation as a Third Grade Hosp. Asst. and posted to Civil Hosp., Akyab, for duty

ASSAM GOVERNMENT.

Sick leave for sixteen days, is granted to Hosp. Asst. Kotisvar Guha, in extension of the one month's sick leave granted 27th July 1898

Hosp. Asst. Bisnu Charan Banerji, Manipur Dispy. to Sylhet dist. Bhanga Dispy. in that dist. from 17th Aug. 1898.

Hosp. Asst. Nabin Chandra Datta, Banlyachong Dispy., Sylhet dist., to Lusai Hills dist. apptd. tempy. to Tenzol outpost in that dist., from 19th Aug. 1898.

Privilege leave for two months, is granted to Hosp. Asst. Chandra Kisor De, Nowgong Jail and Police Hosps from 3rd. Sept. 1898

Hosp. Asst. Kotisvar Guha, to Nowgong Jail and Police Hosps. from 3rd Sept. 1898.

Privilege leave for one month is granted to Hosp. Asst. Durga Charan Sen Gupta, a Supery. at Gauhati, from 6th Sept. 1898.

NOTICES TO CORRESPONDENTS.

J. R. (Koharu).—We see no reason why Civil Hospital Assistants should not be promoted to Assistant Surgeons if they undergo the necessary qualification. You should apply to Government to allow you this privilege.

V. P. A. P. (Kamptee).—Our Manager is responsible for your addressed cover. He wishes to please everybody and we trust he has given you satisfaction.

G. N. (Agra).—No letter received, post card to hand.

T. W.—Your notes regarding the Eden Hospital have been received. We shall comment on the management of this institution later on.

G. H.K.(Calcutta).—Complains of the nursing arrangements of the Calcutta General Hospital and states that the nurses are above their work. He says the native sweepers administer enemata and wash the patients who are bed-ridden. If this is true it is disgraceful.

D. A. writes :—"I beg you will kindly inform me whether the orders of Government debarring natives of India, Goanese, Jews, Parsees &c., from entering into the S. M. D. *i.e.* Military Assistant Surgeon class, has been rescinded or in any way relaxed of late. "Having a promising son, I am personally interested in the matter and therefore solicit this information, as only two years ago the son of Military Assistant Surgeon—— (Bombay Circle) named———was admitted into the Grant Medical College, Bombay, as a Military Pupil and is now studying for that service." "I am personally acquainted with the family of this lad and can positively assert that he has no claim whatever from parental lineage to represent himself as an Eurasian, and I shall be extremely obliged by your kindly informing me the as to the circumstances under which this lad got entrance in the service.

"I can only account for it in one of two ways, *viz*:—

"(1).—A special consideration on account of the father being in the service. (2).—That the father or the lad apparently furnished a false certificate, necessary by regulation for admission.

"The rules of the service are very clear, and if they have been driven through under the garb of falsehood, an example ought to be made of the case in question."

W. C. (Calcutta), writes :—"An elderly lady, (45), who complained of suffering from prolonged hæmorrhage went to a well-known hospital of this city, was seen by one of the junior officers who doubted her word and said so to his class. She was admitted into the hospital, examined with a sound and it was said she was not pregnant. The next day the woman aborted. This is another case of "abortion by inadvertence."

ORIGINAL ARTICLES.

THE MEDICINE OF SUPERSTITION.*

By William Edgar Darnell, A.B., M.D.
Atlantic City, N. J.

The practice of medicine is as old as history itself, but the science of medicine is quite young. Perhaps the latter half of the present century will embrace the time since medicine has been studied in a true scientific spirit. God-given from Apollo to his son Æsculapius, according to the Greeks, the healing art was in its early days clothed in mystery; and to the ignorant it yet remains a semi-mysterious realm. Its history is wrapped in superstitious customs and associated with strange ceremonies, which have been handed down from generation to generation for many centuries. Medical therapy was often linked to witchcraft in the person of some old hag, toothless and wrinkled, who aped acquaintance with the supernatural and could dissipate disease with a charm. The busy practitioner finds yet almost daily examples of such "old granny" superstitions regarding disease existing in the gullible minds of the uncouth; and they will give up their doctor sometimes rather than weaken their faith in them. Indeed traces of these superstitions are often discovered among people who are quite intelligent in other respects. Very seriously did an old lady take me into her confidence one day by divulging a remedy for obstinate nose bleeding. Three strands of silk thread tied around the neck, said she, would stop it after all else in the way of medicine and doctors had failed, for she had seen it tried. Who has not heard of the horse chestnut or the lump of sulphur carried in the pocket for rheumatism; the bag of asafœtida about the neck or a raw onion wrapped in silk to keep disease away; and the string of amber beds for croup?

Ancient writings tell of how the Persian, Magi, or wise men, knew of herbs which, wrought into pills and swallowed in wine, would make the guilty confess their secrets. There was an herb for begetting good and handsome children and a wort to revive old love, when it had turned to hate.

The palpitating heart of a mole, when swallowed, gave one the art of divination, while the heart of a hen, they said, placed upon a woman's left breast while she slept would make her tell her secrets.?[1]

Amulets played a prominent part in the remedies described by Pliny, many of which are curious. For malaria he prescribed the dust in which a hawk was rolled; the longest tooth of black dog; a solitary wasp caught in the left hand; the head of a viper cut off, or its living heart cut out and wrapped in a piece of cloth; or the snout and tips of the ears of a mouse.[2]

The Chinese still retain much of the folly of their ancient materia medica. It is said that much of the feeling engendered against the foreign missionary physicians in China is due to the firm belief the natives have in the efficacy of the eyes and vitals of the human body in disease. They spread the rumor in more than one instance, that the foreign doctors, whose skill they were forced to admit, obtained their medicines by kidnapping and murdering Chinese children—a general massacre of the Christians following as a result of their jury.

Mitford describes seeing a Chinese doctor give a child with fever a decoction of three scorpions. The European leech of the last century held in high esteem the ashes of a burnt witch, for gout or fever. Ague in Ireland was to be cured by the sufferer swallowing a living spider. In Somerset, England, a large black spider was shut in a box and left to perish; and in Flanders a spider is imprisoned in walnut shell and worn around the neck. In Lincolnshire a girl suffering from ague cuts a lock of her hair and binds it around an aspen tree, praying it to shake in her stead. The first violets of the season may be chewed or a three-colored cat kept in the house.

Even in sturdy New England the superstition of the mother country leads to the manufacture of pills of spiders' web as a cure for ague, and Longfellow refers to the traditionary remedy for malaria.

> "By wearing a spider hung around one's neck
> In a nutshell."

In Japan the ancient medicine man dealt largely in carbonized animals. The rarer the animal and the further it has travelled the more remarkable the cures accomplished by it. Tigers' claws, teeth and skin were valuable, and especially the center of the tiger's eyeball. The joyous lizards which dart about in the sunlight were popular as a vermifuge. Toads' paws, wolves' eyes, vultures' claws, human skin and fat were thought to possess remarkable virtues. Although China has advanced but little in medical science Japan has, and, having broken the sackles of superstition, at the present day occupies a a place in the front ranks of the profession which is much to her credit.

The Japanese remedies mentioned are not worse than the mummy dust so highly prized in Europe and recommended in the standard medical works of Nuremburg two hundred years ago. So much in demand was it that only the wealthy could afford it; and it is a fact well known to history that this formed the principal ingredient of the well-stocked medicine chest Francis I. of France valued so highly and kept ever near him.

"The hare's gall mingled with honey brighteneth the eyes." says an old chronicle; and an ointment made from a wolf's eye was the best prescription of the ancient Saxon oculist. Far from alluring is the practice in Aberdeenshire. The cure for sore eyes is to lick the eyes of a live frog. The person thus healed has thenceforth the power of curing all sore eyes by merely licking them. So in Ireland to the tongue which has licked a lizard all over is ascribed the marvelous power forever of healing whatsoever sore or pain it touches. As a preventive of sore eyes we are told by Marcellus that when a shooting star is seen, as many numbers as possible should be counted, for as many years as you count numbers you will avoid inflamed eyes. The Saxons use the juice of an emmet's egg or the gall of a goat for deafness. Extreme cases were cured by a mixture of equal parts of boar's gall, buck's gall, and honey, with sometimes the addition of very nasty ingredients. One prescription directs that

* Reproduced from the *International Medical Magazine* by request.

1 William Murrell, A Manual of Pharmacology and Therapeutics.

2 *Medical Record*, Nov. 21, 1896,

" the bowels of an earwig be powdered with the smede of whatever meal and the netherward part of marche and mingled with honey. "

They also devoted much attention to their hair. Falling of the hair might be prevented by dead bees burnt to ashes and seethed in oil with willow leaves. If the hair were too thick " then must a swallow be burned to ashes under the tile and the ashes sprinkled on the head." For a depilatory emmet's eggs were rubbed on. Various forms of disease were combated by the heart of a fox mingled with frankincense, and the oil in which various portions of this animal's body had been seethed averted baldness, " then the hair holdeth on and the salve compels that it shall grow. "

In a quaint volume printed in 1712 in Edinburgh, " A Collection of Useful Remedies for most Distempers, " collected by JOHN MONCRIEF, we find that the head washed with a lee of the ashes of cow's dung, then the burnt ashes of little frogs applied, cures the falling of the hair called alopecia. Other medicaments mentioned are : The burnt ashes of goats ' dung mixed with oil; the ashes of a goat's hoof mixed with pitch ; the blood of a shell crab. However, the blood of a bat, or a little frog, the powder of swans' bones or the milk of a bitch hinder the growth of the hair.

For toothache our ancestors had also some remarkable remedies, such as spitting into the mouth of a frog and telling him to be off with it. Also for pain of jawl a swallow burnt to dust and mingled with field bees' honey should be given the patient to eat frequently. The gall of a he-goat mingled with oil, or the tusks of a hound burnt to ashes and sprinkled on wine may be given the man to drink. " Hideous. " says GORDON CUMMINGS, " is the remedy for toothache practiced at Tavistock in Devonshire. A tooth must be bitten from a skull in a church yard, and kept always in the pocket " We find also a preventive in trimming one's nails on Friday, and as a cure for toothache, the eating of bread a mouse has nibbled. Kiss a mule or rub the gums with the body of an ant, beetle or fly.*

For epileptic fits the cures were as numerous as they were horrid. The *Chinese Repository* published in 1832, relates that dragon's bones may be used These may be found on banks of rivers and in caves of the earth, places where the dragon died. The best are known by slipping the tongue lightly over them, but if these are taken from damp places or by women they are worthless. Old English medical works of high authority recommend powdered elks' and deers' horns ; and in Caithness only a few years ago the skull of a suicide was used as a drinking cup for the cure of fits. Dr. ARTHUR MITCHELL recounts a case in which the body of a suicide was disinterred in order to obtain the skull for this purpose. To reduce such a skull to powder and swallow part of it was a sure specific. Even the moss which grew on such skulls was deemed highly efficacious for certain ills. This is mentioned in the official *Pharmacopœia*, London, 1678. This same work in 1724 refers to unicorn's horn, human fat, human skulls, dog's dung, toads, vipers and worms as possessing real value in disease.

* *Journal of Practical Medicine*, February, 1898.

Scotland likewise followed the skull treatment for epilepsy. Sir JAMES SIMPSON knew of a case in Rosshire of a lad attacked with fits. Moles' blood was given but failed ; and a messenger was sent nearly a hundred miles for a bit of the skull of a suicide, which was scraped to dust, mixed with water and administered to the boy. Sometimes the epileptic was made to drink blood drawn from his own arm. Here is another cure that reminds one of the old well-known remedy of rubbing a gold ring on a stye to abort it. It is to " draw the brain of a mountain goat through a golden ring, give it to the child to swallow before it tastes milk and it will be healed. " As a sacrificial remedy living cocks were sometimes buried ; while blood from a weasel, seven drops of blood from the tail of a cat, or blood from a recently executed criminal are all remedies for this strange malady—which we are still far from thoroughly understanding.

Insomnia was baffled by placing a goat's horn or wolf's head under the pillow. The wolf's flesh was also a cure for " devil sickness, " and Miss BIRD has described how great faith the Chinese place in the dried blood of the tiger, which they so much admire, as a tonic, giving strength and courage to him who takes it.

During the sixteenth century the horn of the unicorn was deemed the best antidote to poisons ; and in that treacherous age, says CUMMINGS, drinking cups were carved from it as a safeguard on account of its neutralizing powers. At the close of that century on one occasion the learned doctors of Augsberg met in solemn conclave to examine a certain specimen of unicorn's horn and decide whether it was the true monocerus or not, which they determined by an experiment on a poisoned dog.

SPIDER'S bite was antidoted by the sinews of a fox swallowed raw ; and the rennet in wine was given for the bite of a serpent. In Devonshire, England, a person bitten by a viper is advised to kill the creature and rub the wound with its fat This same treatment has survived in some of the northern states of America and reminds one of the traditionary " hair of the dog is good for the bite "—a true homeopathic *similia similibus curantur*.

The living fox seethed till the bones alone are left, makes a foxy essence which was reputed a sure cure for disease of the joints if rubbed thereon. The medicine of the long ago known as *Pulvis æthiopicus*, which was deemed so valuable as both an external and internal remedy was neither more nor less than powdered toad. In Devonshire the " wise man " for the relief of rheumatism will burn a toad to ashes and tie the dust in a bit of silk which the sufferer must wear around the neck. To the sick poor who are rarely lacking in the primary necessity of faith in the means adopted, frogs are well nigh as valuable as toads. Thus frog's spawn, placed in a stone jar and buried three months till it turns to water is regarded by the people of Donegal as a wonderful cure if rubbed into a rheumatic limb.

The snake also comes in for a share of consideration for palsy, leprosy and rheumatism, in the early medical lore of both Japan and Britain. Even in this country, according to Black's *Folk Medicine*, the New Englanders are accustomed to wear a snake skin around the neck for rheumatism. This is no doubt a direct heritage from the medical traditions of the mother country ; but we are

also told the Indians of America made use of rattlesnake oil for the same malady. Patients with rheumatic gout, however, found a potent remedy in the wearing of a copper ring made from a coffin nail. Also if the patient carry on his person the tooth of a mole or a dried toad.

The different things that have been and still are used by the ignorant as styptics would alone fill many pages. Here are a few of them. He goat's liver pounded with vinegar; the juice of swines' dung (perhaps for its aseptic (?) properties); snails; ashes of burnt frog or hens' feathers; cobwebs; the herbs, shepherd's scrip and knot grass, "which have the property of stanching blood by merely looking on them." Drop vinegar water on the face of the patient who shall lie on his back all naked. Dry a toad well in the sun, put it in a linen cloth and hang with a string about the part that bleedeth, or let it touch the breast of the left side near the heart.

A strange custom prevails in Sunderland, where the inhabitants, for the relief of whooping cough, shave the head, and hang the hair upon a tree or a bush, believing that, as the birds carry away the hair, so will the cough vanish. While the people of Ireland, who have abundant faith in charms, keep headache off by thrice going around a certain tree at the holy well of Tubbar Quan on their bare knees, then cutting a lock of hair which must be tied to a branch of the tree as a charm.

Almost as many cures for cancer obtained in former times as at present for the affliction, and were attended with about as much success in the end. Only two or three will be mentioned: the fresh warm flesh of a hen or a pigeon applied to the sore; the ashes of a mad dog burnt to dust, and especially human excrement.

For hard tumors and swellings, goat's flesh should be burnt to ashes and smudged on with water. Again, shavings of the horn of a hart are useful to disperse ill humors and gatherings, as are also wood ashes seethed in resin; goat's horn burnt and mingled with water or its dung dried and grated and mingled with lard.

Is it much wonder that the human mind struggling in such a slough of discord and without perhaps a single idea of physiology or the science of medicine should ascribe to the kings of the last century, who were admittedly divine in everything else, the divine power of healing "King's Evil" or scrofula simply by a touch? Even to-day the approved treatment of this trouble in some parts of England is as senseless as in the days of CHARLES I., the "great healer."

The hind leg of a toad is to be dried and worn in a silken bag around the neck, or else that part of the living reptile answering to the part affected by scrofula is cut off, wrapped in parchment and hung arround the neck of the sufferer. In Essex it is the vile snake again which must be drawn nine times across the neck, then killed and its skin worn, sewed in a piece of silk. Sometimes the snake is put in a bottle tightly corked and buried in the ground. It is expected that as the victim decays the swelling will subside.

SAINT ANTHONY'S fire or erysipelas was to be cured by the burnt hairs of a hare or the delectable medication of a plaster of earthworms or bullocks' dung still warm. Better still, at least not quite so disgusting, burn a swallow's nest, dung and all, rub to dust, mingle with vinegar and smear therewith; and also a goat's horn roasted and pounded with acid reduces the inflammation of erysipelas.

The means employed for the relief of goitre are even more harrowing than some that have been mentioned for other maladies. Oil from a lamp that has burned beside a death bed may be rubbed on the swelling; but in some parts of Britain the horrible charm of having the hand of a dead child rubbed nine times across the goitre must be undergone. It is even better if it is the hand of a suicide. Mr. GORDON CUMMINGS* relates a case which occurred not so many years ago in which a poor woman living near Hartlepool, acting on the advice of a "wise woman" went alone by night to an outhouse where lay the corpse of a suicide awaiting the coroner's inquest. She lay all night long with the cold hand of the corpse resting on her even; but the mental shock of such a night of horror was so great that she shortly after died before it could be determined whether the treatment would have been successful or not!

———:o:———

THE TEMPERANCE QUESTION AND BIOLOGY.

BY WM. HUNTLY, M.A., M.D., B.SC.,
Nusserabad.

IN *The Medical Magazine* for June and July and later on in pamphlet form there appeared two articles on "The Temperance Question from a Biological stand-point." We had anticipations of great things when we began to read the pamphlet and incidentally invited the attention of a fellow doctor while we proceeded to read it aloud. Our anticipations had promised for us an account of experiments undertaken on the lower animals and even on the humbler organisms as far down in the scale as say the the schyzomycetes or the saccharomycetes, and we were wofully disappointed. Of experiments there were none. On the contrary it was an essay on the temperance question looked at from the evolutionist's point of view. But the essayist supplies his own theory of evolution and herein lies our difficulty to begin with. If we grant that two and two make five, we must be prepared to take the consequences, but if we calmly refuse to admit that two and two make five, the argument from that point fails.

Dr. REID has his own notion of Evolution and has studied the subject to the extent of writing a treatise on "The Present Evolution of Man," and we learn that he has in that volume laid down a theory of alcoholic evolution which he informs us, "has met with general assent from biologists."

In this essay he tells us,—"I have endeavoured from a biological standpoint merely to discover the origin of the craving for narcotics to account for racial differences with respect to it, and from that standpoint to demonstrate the futility of "temperance reform" as the phrase is commonly understood." In place of "temperance reform" he also has a little scheme of his own, which of course in his own mind is quite in harmony with his evolutionary ideas and is its logical consequence. We will state his wonderful substitute for "temperance reform" in his own words, for he professes a zeal to save the victims of intemperance. "It is in our power" he writes "to aid

* *Nineteenth Century*

most actively, but as yet the peculiar moral sense of this half-civilised community forbids. Nevertheless in the overcrowded world which looms in the immediate future, our descendants, if, spared by "temperance reformers," will surely adopt it and breeding only from the best, solve thus, this and other kindred questions. It is in our power by copying nature, by substituting Artifical by Natural Selection, to obviate much of the misery incident with the latter, and thus rapidly to evolve a sober race. It is of course not part of the scheme here propounded to destroy drunken persons, nor even to permit their self-destruction by drink. *Having by means of alcohol* discovered the innate drunkard, *let us by all means*, if it be practical, keep him sober ; but let us safeguard the species by forbidding the procreation of children by him. This would be no new thing in the world, for already in practice we prevent the marriage of imbeciles and lunatics. I think, however, that it would be impossible to prevent the marriage of the innately drunken, if only for the reason that frequently the craving is not manifested, especially among women, till later in life ; but a system of fines and punishments would soon check the birth rate.....To achieve real success we must eliminate not drink but the excessive drinker, at least in so far as to prevent him influencing the race by having children."

It does not require us to think over the new scheme above propounded, before we feel that we are reading a counsel of despair. We can fancy another evolutionist taking up the question of thieves and theft, propounding a like theory and suggest that as all the laws ever framed have been unable to put a stop to the profession of the thief, we should revert to artificial selection or compel by certain fines, etc., the thief or shall we say the excessive thief (not moderate thief) from influencing the race.

And we look forward to a future in which each man who proposes to enter the bonds of marriage and be a probable father will have to present himself before a committee of selection. The prospect can easily be extended. Every imaginable disease under the sun has only to be treated in this fashion and in a brief epoch the would will be filled with moderately sober men only inclined moderately to theft and moderately towards the exercise of the passions and so on. What a world of vain Pharisaical prigs we should have in due course. True help to a fellow man if he needs it, is help to suppress him for ever, and doubtless our evolutionary friends would set up the same method of cure for *poverty*. Poverty does neither sound well or look well to our "survival of the fittest" theorists, for of course our evolutionist always reckons himself physically and mentally to be a glorious example of the survival of the fittest. The writer of the essay (sic) concerning the speculations of other writers writes this airy sentence,—"That such speculations have any scientific value, or are other than a species of solemn and fatuous trifling, I am not prepared to admit." Certainly Sir, go on steadily in your own solemn and fatuous triflings and then present yourself before the selection committee to see if they will adjudge you worthy of influencing the race.

"A system of fines and punishments would soon check the birth rate." We simply decline to discuss such nonsense. Why the children are generally born before excessive drunkenness and the case for it, is established. In another portion of his essay he believes he has proved that the craving for alcohol is innate and cannot be transmitted and writes that, "an undying fame awaits the writer on inebriety, who shall prove that the acquired effects of alcoholism are transmissible ;" and adds that, "if acquired characters are transmissible prohibition is undoubtedly right ; if they are not transmissible no more foolish and suicidal policy was ever thought of."

All through his essay, the writer mixes up "acquired characters," acquired effects," "parental drunkenness," and other similar terms, but whatever he is struggling to express, his treatment all implies that the parent does transmit something which affects the offspring in its relation to the drink craving.

It will surprise our readers to learn that he adduces in support of his theory what he terms facts elicited by the Royal Commission on Opium. He writes that "Witness after witness, men of high official or scientific standing, endowed with the best opportunities of arriving at a correct judgment, such men as Sir JOHN STRACHY, Sir JOHN BIRDWOOD and Sir JOSEPH FARRER declared that they had never in all their experiences seen a native of India the worse of opium. There was in fact a general consensus of opinion that of all races the natives of India are the least prone to excessive indulgence." Without going into details every reader, whether he belongs to the pro-opium or anti-opium party, will agree that he has not quoted the real opinion of the Commission and that if the above statement was really made by the three authorities mentioned above, the conclusion drawn therefrom is of equal value with the conclusion drawn from the witness who said he had never seen a tigor in India, that there are no tigers in the country. We might incidentally ask Dr. REID, the writer of the farrago of evolutionary nonsense, to ask the Brahmins and the leaders of other castes in India, why they believe in prohibition and enact it for their respective castes. He might also find out something about the native being "least prone to excessive indulgence," if he attended a good feast, and understood the phrase "pet-bhar khaya" : he might also live for a week or two in the neighbourhood of a liquor shop (native), and he might infer something from the laws against drink in the Methodist Church in India and from the total-abstinence movement which has been espoused with enthusiasm by many leaders of the people of India. The modesty of the writer can be gathered from the following,—"May I be permitted in conclusion to quote my own words," when he has been all through busily engaged in quoting himself without apology.

The last words in his scheme of alcoholic evolution are these,—"It is surely clear that if the world is to become more temperate it must be by the elimination, not of drink, but of the excessive drinker. If artificial selection be found impracticable in the future, as, owing to the state of public opinion, it undoubtedly is at present, then the only alternative is Natural Selection, in which case the world will never be thoroughly sober until it has first been thoroughly drunk." In plain prose, the

remedy from our evolutionist friend is the policy of *drift*. We do not expect that any one with the welfare of their fellow-men on their consciences will accept either the one remedy or the other, and if this is the logical outcome of the application of the so-called evolutionary theories of the writer, we would doubt the truth of the premises and the theory from which he argues, and be inclined to vote the conclusion and theory as in the writer's own words "a species of solemn and fatuous trifling". All that his essay requires are a few daring sketches from the pen of the artist who adorns the pages at the end of the Strand Magazine with comical Zoological pictures and it could find a place under the title of "Evolution after a course of *Temperance* ! Drinks" ! It is a pity that any reputable medical journal should insert such a farrago of absurdities under a scientific heading.

NOTE.—To let our readers know the nature of the philosophy of life held by the above writer, we might quote his definition of the aim of humanity. The ultimate aim of all animate beings is pleasant sensations; even the saint and the hermit seek at most an eternity of pleasant sensations." We need not go further than this loose abuse of language to show how unscientific are his terms and how puerile his treatment of the whole subject.

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THE INJURIES OF PARTURITION, THE TIME, METHOD AND REASON FOR THEIR REPAIR*

BY A. H. TUTTLE, M.D., S. B., (Camb. Mass.)

UNLESS one is in the habit of examining the tears of parturition carefully, their extent and the possible dangers they afford or the almost impossibility—save when they are of minor degree—to satisfactorily repair them in the hurry scurry and imperfect asepsis of out-of-hospital practice can scarcely be realized, even by those who eternally urge for "immediate repair of the perinæum," but forget that a primary repair of the parts requires greater skill and better surgical technique than a secondary operation and that, if the injuries are extensive, it is worse to do an imperfect operation than to leave the case alone. The pelvic cellular tissue and the region of the broad ligaments are exposed to external infection in two direct ways :—(1) A cervical tear passing beyond the cervico-vaginal junction and (2) a vaginal tear which extends from a point in the roof or side and running parallel with the urethra close to the neck of the bladder, terminates internally near the cervix. Both these tears are common and are often bilateral with one side a little greater than the other.

Unless the tears are very carefully repaired, the wound heals by secondary intention and becomes a source of great after-trouble, owing to adhesions about the ovaries and a tendency to anchor the uterus in an immovable manner and in an unnatural position.

The form of puerperal septicæmia which arises from the neglected tears should be carefully distinguished, and the fact recognised that the infection in the peritoneal space is direct and not by the way of or involving the uterus.

The perineal tears usually extend upwards through the vaginal membrane lining the lateral sulci, are rarely medial, and when bilateral, raise the corrugated membrane or raphé in the form of a thick flap with the base upwards ; while the tear along the lateral sulcus often reaches to a great depth.

Most of the vesico-vaginal and vesico-urethral fistulæ result from forceps-extraction of an occipito-posterior presenting head or breech. The perinæum is usually well torn and there is a median tear of the vagina above, involving the deeper organs and having a clean appearance as if cut by a blade of the forceps.

The skin tear of the perinæum which is more or less straight, sharply defined and regular, extends in severe cases from the fourchette or hymenial ring and the mucous membrane of the rectum, but rectal tears are rarely deep, though both sphincters are at times torn and the levator ani frequently injured in all important lacerations.

Besides the above tears there are innumerable smaller ones like a crack in the tissue, short superficial and rarely severe enough to require special attention.

The mere fact of a difficult labor condemns the patient to a period of lying-in which being almost equivalent to the period of repair, is a period which in the life-time of many women is the most opportune for the treatment of her trouble, and it is a fact that in the majority of cases, convalescence would be shortened and cure hastened by complete primary repair.

If it is a simple tear a few stitches immediately placed, is all that is necessary ; but when the injuries of a labor consist of more than a simple tear that does not involve the sphincter, the placenta and blood clots should be expressed from the uterus ; a full dose of ergot administered, a pad wrung out in bichloride solution applied to the perinæum and the patient allowed to rest for 8 to 10 hours before operation ; because the repair of the cervix is easier at the end of 10 hours and the retraction of the uterus is greater at the tenth hour after parturition than in the end of the first, but a trifle more care is requisite in refreshening the parts. If the injuries have occurred early in the evening or during the night, it is wisest to wait till next day when there will be good light to work in.

Having sterilized all the necessary instruments and placed them with the antiseptic solutions, some kangaroo tendon and fine catgut sutures and an irrigator filled with bichloride solution ready to hand, the etherized patient is so placed on a table, that her parts are exposed to a good light and her back well supported. The hair about the parts are shaved, the uterus cleared of blood clots, the skin and vagina scrubbed with soap and water, and the genital canal finally irrigated with bichloride solution. The rectum is dilated and similarly cleansed. An assistant presses down on the fundus of the uterus to expose the cervix whose tears (if any), after scraping their raw surfaces with a sharp curette to insure union, are repaired by closure with an over or an interrupted suture, passed just below the mucous membrane, and exposed on the *outside* of the cervix (not inside the canal). After each stitch the blood is carefully washed away with the irrigator and the corresponding parts adjusted with the help of dissecting or (better still), PRATT'S rectal forceps.

A seperate suture is used for each rent and in closing vaginal tears, carefully bring together the torn edges of the mucous membrane and muscles that correspond to each other, and unite them with sutures firmly and in close-

* Presented by the Author at the 48th annual meeting of the American Medical Association and specially reported for the *Indian Medical Record*.

apposition so that raw surfaces are in contiguity, and their exposure along the line of tear reduced to a minimum. A suture is taken in the tears of the mucous membrane that extend up the lateral sulci, beginning at the deepest point and while the deep tears through the vault can be closed with an over stitch taken with a fine ligature, all the other rents are best treated with buried sutures. These sutures are not drawn tight until the other parts are united, because there would be less room for manipulation.

In rectal tears the first suture is taken at the external angle of the wound with very fine tendency, and the line of sutures which pass only through the muscular coat of the gut, is carried to a point just above where the skin joins the rectum and so fastened that it is entirely disconnected from the other lines of suture. The object being to prevent infection—should it occur. The deeper layers of the torn levator group of muscles and the transverse perinæi are apposed by figure of 8 sutures, and the internal and external sphincters by simple sutures. The torn edges of the perinæal muscles must be brought back carefully to their normal position to ensure good fibrous union. When all the deep sutures have been placed, the ends of those closing the tears in the mucous membrane are seized and carefully drawn tight to close the wounds from infection by way of the vagina. Lastly the outer torn portions of the levator ani and transverse perinæi and the skin wounds, are repaired with two or more layers of buried sutures.

Fine buried sutures of Kangaroo tendon, passed by the help of a sound should be employed for the repair of the bladder and urethra, which should be done immediately after that of the cervix while there is yet plenty of room to work in, after the injuries are all repaired the urine is drawn, the parts irrigated, and to prevent the perinæal wounds being prized open or infected by vaginal discharges, a protective suture, which may be removed in 2 or 3 days and has nothing to do directly with the closure of the perinæal injury, is passed just above the lower angle of the vaginal introitus through the labia of either side, and securely tied so as to bring the surfaces of both labia into close juxtaposition, above the seat of injury.

If thorough asepsis be employed and the repairs skilfully done, healing will occur by first intention throughout with only slight fever of reaction rarely exceeding 100°F., cure rapidly results.

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APPLICATION OF THE PRINCIPLE OF OSMOSIS TO THE TREATMENT OF TOXÆMIA.*

By Asst. Surgn. Walter McKeown, B.A., M.D., M.R.C.S.E.
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Under the law of osmosis all crystalline bodies have the power of dialysing through an animal membrane, itself impervious to fluids, provided the opposite side of the membrane is in direct contact with a fluid of a less or greater degree of concentration.

Specific or pathogenic organisms, once they obtained a foothold in the human body, might go on reproducing themselves indefinitely, did they not concurrently—perhaps simultaneously—form (1) a poisonous toxin and (2) an antitoxin, which more or less antidotes the former, which kills or overwhelms the vital energies of the patient.

The less toxin necessary to overcome it and the greater likelihood of the antitoxin and the normal germicidal action of the blood serum—the natural resistance of the body—bringing about a more rapid and favorable termination of the specific disease.

Toxins will dialyse, which anti-toxins will not.

Osmosis therefore offers a method of separating these bodies and leaving the antitoxins undisturbed in the circulation, while the toxins are drawn off by injecting a vein with deci-normal sodium chloride solution, to dilute the blood, and filling the rectum with saturated solution of sulphate of magnesia, which was kept in situ by a pneumatic plug carrying a large afferent and a small efferent tube provided with a stopcock. The rectal wall forms the animal membrane, and the toxins and the epsom salts the bodies capable of osmosis, while the fluids of different degrees of concentration are furnished by the blood and the sulphate of magnesia solution.

So far the theory was reasonable and plausible enough, since it indicated the mechanical application of a natural law; but it was not easy to put it into practical proof as patients were not available for a long time; but everything comes to him who waits, 'the theory' was tried with wonderful success in two cases:—The first was typhoid fever terminating in purulent peritonitis with a high temperature and small poor pulse of 150, and rendered all the more difficult and almost hopeless as the patient was almost collapsed before treatment began. The other case was that of a multipara, aged 35 years, whose lying-in was complicated by a severe attack of pneumonia which set in in a few hours of delivery and ran her temperature up to 106·4°F and her pulse rate to 180 per minute.

True successful results with two cases only, does not prove the universal efficacy of any system of therapy; but as marked improvement followed immediately upon the use of saline and magnesia sulphate, there can be no doubt in the world that the treatment and the improvement bear the relation of cause and effect.

How do pathogenic micro-organisms which do not inhabit the blood, but grow in the tissues where their toxins are produced, get into the circulation? Through the lymphatics and lymph ducts. But how do they get in there? Most probably by osmotic power which forces the toxin laden fluids onward, and the lymph channels which preserve nearly the same calibre throughout their course, further favor this as the circulation in them is more rapid than it would be, were they to widen out as do the veins.

If toxins can pass through the walls of the lymph capillaries, they will do the same through the walls of the blood capillaries and so be thrown out of the circulation together with a large quantity of the fluid constituents of the blood. That this tends to considerable concentration of the blood itself is proven by the hard, dry, brown

* A preliminary report read before the Toronto Medical Society and specially condensed for favor of publication in the *Indian Medical Record*.

tongue of a patient suffering from toxæmia and to dilute the blood is to help Nature's method of getting rid of these poisons, which the solution of magnesia sulphate carries off as soon as they are thrown into the bowels and thus effectually prevents the possibility of their re-absorption.

Antitoxins on the other hand are possibly produced within the blood current and as they do not osmose or dialyse, they remain in the blood for a considerable period of time.

Whether subsequent investigation will bear out the claims and expectancies of this process or not is hard to say, but as the results so far obtained have been more than satisfactory, and as death from toxæmia is probably much more common in the specific diseases than is death from any other cause; it is not unreasonable to think that the application of the principle of osmosis offers wonderful possibilities and proves useful not only in the toxæmia due to specific disease, but also in rheumatism, uræmia, alkaloidal poisoning or any condition where the blood contains a poison, capable of dialysis through the capillary wall.

It milder cases of toxæmia where opening a vein might seem heroic, or even in the more severe when there is no immediate danger of death, the same principle of osmosis may (probably) be carried out through the skin by immersing the patient in warm water, no matter how high the temperature, because it would be more agreeable to the patient and because it would determine more blood supply to the skin and consequently hasten elimination by osmosis; but whether total immersion of the patient for a long time will drain off the toxins or not, is a question that needs close investigation.

How account for the 'chill' following saline injection? The explanation is obvious:—A condition of equalization has taken place between bodies capable of dialysis without and within the blood current. Dilution of the latter necessarily means a rapid increase from without. Hence chill; but toxins so absorbed are rapidly eliminated, and as the supply in the tissues has undergone a sudden diminution, a fall of temperature follows which continues until a new supply is elaborated.

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ON VENEREAL EXCESSES AND THEIR CONSEQUENCES—GONORRHŒA OR CLAP, ITS APPEARANCE AND BEST MODE OF TREATMENT.*

By D. F. Bright, M.D.
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Constituted as man is, two grand functions, viz., nutrition and reproduction, are necessary for his existence as an individual and as a species. The first of these is the general function by which the the body is nourished and sustained, including in its details, digestion, absorption, circulation, respiration, secretion, excretion, etc. The second is the function by which an organised being propagates its kind, by which the continuation of our own species is kept up, and for which great functional purposes man is accordingly furnished with organs of generation.

In the lower animals both these important functions are under the control of instinct; they have no artificial means of rendering their food pernicious, and, therefore, do not impair their organs of nutrition. They are (in a pure state of Nature) instinctively periodical in their sexual desires, and do not, therefore, suffer from an excessive exercise of the function of reproduction.

But in man the case is different: these functions, especially that of reproduction, being (as to their exercise) under the control of the rational powers; but while he possesses the rational and moral power of understanding and guarding against excess, he, too, often violates the laws of his constitution, and seriously injures his system. By abusing his organs, and depraving his instinctive appetite, the body of man is thus made a living volcano of unclean propensities and passions, and the earth (so to speak) a mighty sepulchre for those who prematurely fall victims of the innumerable diseases resulting from the violation of the simplest laws of life, health, and happiness. Hence the importance that he should be made to understand these laws, that he may know and perform his duties consistently.

The function of nutrition and reproduction depend on the vital laws in the tissues which form the organs of the system—particularly the muscular and nervous system, but more specially the latter. The nerves of the human body are divided into two classes, viz.: The brain and spinal marrow, with their various branches and filaments; also, the faculties of sensation, perception, etc., as appertaining to animal life, are connected with the muscles of voluntary motion; and the ganglions and plexuses (of organic life) distributed to the various internal organs, and presiding over all the processes of vital chemistry; in other words, they are the immediate conductors of that vital energy by which the living body converts food into chyme, chyme into chyle, chyle into blood, and blood into the various solids and fluids of the system.

The stomach, heart, arteries, veins, lungs, liver, kidney, and all other organs concerned in nutrition (except mastication and deglutition, which are not ordinarily included), depend principally, or entirely, upon the nerves of organic life. The function of reproduction, however, depends on both sets of nerves. The power of the male organs of generation to convert a portion of the blood into semen, and to deposit this again in its appropriate receptacle, in readiness for its final expulsion, depends on the nerves of organic life; but the power to exercise the generative organs depends on the nerves of animal life. Hence, the organs of generation hold very important and intimate relations, both to the organs of nutrition, and to the brain and spinal marrow, as also to all the parts supplied by them with nervous power, and are, as it were, woven into the same grand web of organic life with the stomach, heart, lungs, etc., by being largely supplied with the same class of nerves on which the organs of nutrition depend for their functional power; but the genital organs are also supplied with nerves of animal life, or those connected with the brain and spinal marrow. Hence, the influence of the brain upon the genital organs and *vice versa*. Reciprocity exists between the organs of reproduction and nutrition. The stomach, heart, lungs, skin, etc., are immediately and strongly affected by the condition of the genitals; and these latter also participate in the affections of the former. Thus may be seen how undue

* Reproduced from *The Medical Brief* by request.

excitement is calculated to bring on and establish a state of diseased irritability and sensibility, affecting all the organs and functions, and how repetition of such excitement must necessarily induce debility and disease in the nerves of organic life, disordering and deranging the functions and often causing disorganization or actual change of structure in the brain, stomach, heart, lungs, kidneys, etc. The nerves of the genital organs are particularly liable to this general excitability, becoming exceedingly susceptible of irritation, sympathizing powerfully with all the disturbances of the system, especially, those of the brain and alimentary canal. Hence, a diseased prurience or concupiscence may be permanently established, constantly inducing excessive desires and unclean thoughts; and thus it is that individuals who were perfectly modest and consistent while in health, have become exceedingly obscene in their conduct and conversation when insane.

Such, then, are the important relations between the organs and functions of nutrition and reproduction, and the mental and moral faculties, and such their reciprocal influences upon each other that it will be easily seen how sexual desire influences the whole nervous system, and through this affects the stomach, brain, heart, and more or less all the other organs of the body. When excessive, it disorders all the functions of the system; digestion is retarded, circulation increased in the brain, stomach, lungs, and other important organs; respiration is obstructed and oppressed, and the insensible perspiration considerably diminished. Such serious disturbances cannot be often repeated or long continued without injury to the whole system. A general debility and increased irritability of the nerves of organic life is certainly produced; the energy of all the organs of the body is diminished, and their functional power consequently impaired.

The brain becomes exceedingly sensitive and the mental powers are proportionately injured, while the sympathy and reciprocity between the mental and moral faculties and the genital organs become excessive and irresistible. The nervous system is tortured into a fearful state of debility and irritability, and the vital contractility of the muscular tissues throughout the system becomes so impaired, and the muscles generally so relaxed and flaccid that all the organs and vessels of the body, even to the smallest capillaries, become enfeebled.

Through fear of contaminating the minds of youth, it has hitherto been considered the wisest plan to keep them in entire ignorance of the functions and objects of their bodily organization; and too often, in order to sustain this measure, the natural inquisitiveness of the young mind has been met by misrepresentation, and even falsehood, on the part of those who would preserve their purity, and while parents have been thus resting secure in the idea of their children's ignorance on such matters, these have been clandestinely drinking in corruption and depravity from polluted and mercenary hands. Truth, properly inculcated, can never be injurious. On this point, therefore, mankind has surely erred, both in judgment and practice. The only questions are: When and how? As to the former, I am of the opinion that it should be as early as the young mind can be made to understand the subject. With regard to the how, I am satisfied that it should at first be as purely scientific as possible. The rudiments of anatomy and physiology should form part of the education of the youth of either sex.

This kind of knowledge can never be corrupting in its effects or tendencies, and the more scientific, the more strongly is the youthful mind secured against the evil influences of lewd associations, and it learns to think of the sexual organs with as little lasciviousness as it does of the stomach and lungs. The repeated heart-touching, and I may truly say, heart-rending appeals which I have, from time to time, during my professional career, received from young men who have been thus left to themselves, convince me that something ought to be done for the rising generation. Incalculable good has already resulted from my single endeavors to stay the tide of debauchery which has long threatened to overwhelm the youth of this country, and, by properly directed efforts, I hope yet to be the means of saving many thousands from the calamitous evils of which I have treated in the foregoing pages. In writing as I have done, it has been with the full conviction that it may be the means of immeasurable good to my fellow creatures, and that it can not possibly be the means of evil to anyone.

It may be said, perhaps, that such a work as the present is better adapted for adults that for young boys. This is true, but I am convinced that the most important step in such a matter is in the first place to open the eyes of adults, especially of parents, guardians, teachers, and others having the care of children, from whom oral instruction adapted to the age, intelligence and circumstances of the instructed, will always be better than books in the first presentation of the subject to the youthful mind.

Woman is, by Nature, far more chaste than man; but it is possible to deprave even woman. This consideration should lead mothers to watch with great care over the physical, mental, and moral education of their daughters, for, if the vice condemned in the present chapter be practiced by them, its dreadful effects as resulting to males, are strictly true in females. Every man of correct moral discipline, must consider promiscuous and unrestrained commerce between the sexes, as equally destructive of sound morality as it is subversive of social peace and civil welfare; yet some may think that were it not for its moral, social, and civil disadvantages, such a state of unrestrained intercourse would be very desirable. Such individuals should consider, however, that even if society were destitute of all moral and civil restraint in regard to sexual commerce, yet there are fixed and permanent physiological laws which can not be violated without the inevitable penalty of the most calamitous and often loathsome diseases and suffering that human nature can endure! Many of the most terrible plagues which have, from time to time, devastated the earth, and threatened to depopulate it, have been connected with such excesses. In the proper and legitimate exercise of the genital organs, consistently with the laws of organic life, and not solely for, the sensual gratification it affords, we have great enjoyment, and healthful results in the function; but when the pleasures of that function become a leading object, and the rational powers are made sub-

[illegible] of our Creator, [illegible], disease, and misery upon ourselves and [illegible].

[illegible] why illicit [illegible] between the [illegible] is more injurious physically, than coitus between man and wife; but from the explanation previously presented, it may be readily perceived that it is not the mere loss of semen, but the peculiar and extreme excitement, quickness of the convulsive paroxysms, etc, greatly increased by the action of the mind, which produce the mischief. Young men in the pursuit of illicit commerce with women, generally contemplate the act for a considerable time beforehand—their imagination is wrought up, and presents lewd, exciting images—the genital organs become stimulated, and cast their influence over the whole system. This acting on the mental and moral faculties is thence again reflected with redoubled energy upon the genital and other organs. The sight or touch of the female body greatly increases the excitement, and thus the ardour and power of the unholy passions are continually augmented, and more so in proportion to the difficulties in the way of this indulgence, the convulsive paroxysms and excitement attending which are then so violent, that they become positively hazardous to life, in proportion to their intensity. Where this promiscuous intercourse is indulged, the genital organs are almost in a constant state of stimulation and excitement. Every female a little more comely or meretricious than others in her appearance, at once becomes an object of desire to such depraved and misguided individuals; the contemplation of her charms, and even her movements, only increases the lust, and in this way are the genitals kept excited, which excitement, by a reflex action, becomes diffused over the whole nervous system, disturbing and disordering all the functions of the body, impairing the tissues, and leading to that frequency or commerce which produces the most ruinous consequences to the constitution. But, between the husband and wife, where there is a proper degree of chastity observed, all these causes entirely lose or are greatly diminished in their effects. They become accustomed to each other, and the intercourse between a husband and the happy, virtuous partner of his bed, is the result of the mere natural instinctive excitement of the organs themselves; and when the diet and habits are such as they should be, this intercourse is comparatively seldom.

Whatever, therefore, may be thought of marriage as a Divine institution, authorised and enjoined by holy writ, we may be sure that honourable marriage—the permanent and exclusive [illegible] of one man with one woman—is an institution founded on the constitutional [illegible] of things, and [illegible] connected with the highest welfare and [illegible] of man, whether regarded as an individual or [illegible].

A [illegible]

A CASE OF FATAL MALARIAL FEVER COMPLICATED WITH SEVERE CONGESTION OF THE ABDOMINAL VISCERA.

By Assistant Surgeon Raj Kumar K[illegible], L.M.S.
[illegible] : Howrah.

During the whole course of my thirty years' [illegible] practise of medicine, I have never had a case like the subjoined, which I attended in consultation with the veteran, Dr. Hera Lal Ghosh, who agrees with me that it was a case of intensely profound malarial toxæmia :—

K. D. C. a tall, stout Hindu, æt 26, with a previous history of only three days fever preceded with severe shiverings, was placed on diaphoretics on the 3rd August, 1898, and after the fever 'broke' in the evening, he was given 2-grain doses of quinine six times during the night, the fever was kept in abeyance till 2 P.M. next day, when it returned and was accompanied by strong paroxysms of shivering.

On the 5th, he complained of excessive tenderness over the entire abdomen and particularly over the left lobe of the liver, and as he was passing several dysenteric stools consisting chiefly of mucus and bile, Dr. Boycunto Nath Dutt, met me in consultation and prescribed:

℞	Pulvis Ipecac ...	...	grs iii.
	Hydrarg Cum Creta	..	grs. vi.
	Bismuthi subnitras ...	...	grs. ℥j.
	Pulv. Gum. Tragacanth	...	ʒss.

Misce Div. Pulves xii. Sig. one powder every 4 hours.

The bowel disorder continued till the 7th August, when it began to abate, and on the 9th *idem* it entirely ceased, though the tenderness, over abdomen and liver, persisted; but as the patient's eyes were considerably jaundiced and his temperature refused to fall below 103°F, while the pyrexia accompanied by intense shiverings returned five times daily, and lasted from 2 to 4 hours during which the thermometer registered 105°F, Dr Hera Lal Ghosh, was called in in consultation and we prescribed the following mixture :

℞	Quiniæ muriatis	...	...	ʒss.
	Pulv Ipecac	...		grs iii.
	Bismuthi Subnit	...	...	ʒi
	Tinct. Cannabis Ind	...	...	ʒj.
	Sprts Æth Chlor.	...	...	ʒii.
	Mucilaginis Acaciæ	...	...	℥ii
	Aquæ ...	...	ad	℥vi.

Ft. Mist. Div. xii. marks.

One mark was regularly given at three-hour intervals and moderated the pyrexia a little, though it did not reduce the number of the fever paroxysms till the sixth day, when the shiverings began to gradually lessen in severity and entirely ceased in a week's time, when the fever assumed a remittent type with a morning and evening temperature, ranging from 103 to 104°F.

On the 15th August.—We found it necessary [illegible]ly administer the quinine in 6-grain doses three times a day, we changed the mixture to :—

℞	Ammon. Muriatis	...	ʒi.
	Acid Nitro-mur dil	...	ʒi.
	Ext. Taraxaci	...	ʒiii.
	Tinct. Gentian Co.	...	ʒiv.
	Spirits Chloroformi	...	ʒii.
	Aquæ	ad	℥vi.

Ft. Mist. xii. marks, of which one mark was given

[illegible] in the patient, except that on the [illegible] the body was entirely covered with a reddish papillary eruption which itched a great deal, and persisted for five days when it disappeared as suddenly as it had appeared.

By some inadvertence the quinine was not given on the 21st August, when the patient had three shivering fits followed by high temperature; but as soon as the quinine was resumed, the shiverings disappeared, though there was no abatement of the pain in the liver and the tongue was completely denuded of epithelium.

The lungs however remained clear, but as by the 30th August there was very little improvement in the patient, whose pulse was soft and quick and rose to 124 per minute he was given :

℞ Quinine mur.	... ...	ʒj.
Ammon mur.	... ...	ʒjj.
Acid Nitro-mur Dil.	...	ʒj.
Tinct. Nucis Vom. ...	...	ʒss.
Liq. Arsenici Hydrochloric	...	ʒss.
Tinct. Gentian Co. ...	...	ʒiv.
Aquæ	...	ad ℥vi.

Ft. Mist. Div. xii marks. Sig one mark every 4 hours.

Liniment Iodi was painted over the liver and he was placed on barley, milk and broth diet, and given ℥i. of Brandy.

This brought the temperature down to 101 and 102·5°F. but did not affect the pulse-rate, and as nervous symptoms and a little delirium set in on September 5th, the Brandy was increased to ℥iii. and the mixture and dieting continued.

Two days later the patient was very low indeed; his pulse quickened to 140 and he kept picking at his nose and bed-clothes and complaining of severe abdominal pain while his bowels, which had not been moved for four days, had to be relieved by glycerine enema. Brand's essence of chicken had to be given him to maintain his strength which was rapidly failing; but on September 9th, the parotid glands of both sides swelled and became inflamed, and the patient sank lower and lower till coma supervened and he died at 3 P. M. on September 10th, which was the 41st day of his fever.

The remarkable features in this unique case were :—

(1). Gastro-enteric symptoms from the very onset of the fever, and the persistent tenderness of the left lobe of the liver without the slightest manifestation of abscess formation.

(2). Fever paroxysms preceded by shivering and occurring *five* times during each 24 hours.

(3). Great toleration of quinine, nearly one ounce of which was given during the 41 days of illness.

(4). The return of the shiverings and febrile paroxysms on quinine being omitted from treatment.

(5). The peculiar reddish and very itchy eruption that suddenly appeared all over the body on August 17th, and as suddenly disappeared, after persisting for five days.

I would feel immensely obliged were any of my professional confrères to let me know through the medium of the *Indian Medical Record*, whether he has met a case similar to this one and how he treated it.

TREATMENT OF FILARIA MEDINENSIS IN THE HUMAN SYSTEM, BY THE HYPODERMIC INJECTION, INTO THE PARASITE ITSELF WHEN POSSIBLE OR INTO THE PART WHERE IT IS SITUATED, OF A SOLUTION OF HYDRARGYRUM PERCHLORIDE.

By E. Mackenzie, M.D.
Manora, Karachi.

Cases arising from the presence of Filaria Medinensis are not common in Sind, but having been an eye witness to the suffering and inconvenience caused by it in the Dharwar and Poona districts, I have always kept in view the settling upon some better line of treatment than the stereotyped poultices and fomentations and to wait patiently for the worm to be extruded. Poultices and fomentations are very good in their way but do not cut the case short. I have tried several country remedies but with no better results. When the worm has been found superficial, good results have followed cutting upon it in its course, and holding it up over a probe, when by gentle and prolonged manipulation, with the aid of a lubricant, the worm slowly wriggles out or can be drawn out. Lately however in addition to this, when the worm has been broken and its situation is not well defined from swelling of the contiguous parts, I have injected into the swollen parts—over the site of the worm and into it when possible—a solution of Hydrarg : Perchloride grain ¼ and repeated the operation every third day three times, and have met with complete success. The swelling subsides, the pain lessens and the worm is absorbed; the opening ceases to discharge, heals up and the patient can go about his work in less than a couple of weeks. In one case where the worm had just begun to emerge from under the skin in the thigh, two hypodermic injections into the part cured the patient in less than a week and he had not to lay up at all.

The solution used is the following :—

Hydrarg Percholoid	... ...	8 grs.
Sodium Chloride	... ...	8 grs.
Glycerine	... ...	ʒi.
Spirits, Rectified	...	ʒss.
Distilled water added to make	...	[illegible]
		of solution.

Indian Medical Record.

15th October 1898.

DESERTED CITIES OF THE FUTURE.
BOMBAY AND MADRAS.

II.—Madras.

When we turn to the consideration of Madras we can hardly suppress a smile. It appears from the announcement that the Government has called upon the Sanitary Commissioner for a report upon the causes of the excessively high mortality for which Madras has now unhappily become notorious.

It is just two years ago that the Government took precisely the same step: In an official memorandum dated 3rd September 1898, it requested the Sanitary Commissioner, Surgeon-Lieutenant-Colonel W. G. King, M.B., C.M., D. P. H., to report if he could offer any explanation of the high mortality from "fevers" in Madras.

We have never heard that any action was taken on this report, nor have we any means of knowing what the Government thought of it, whether it elicited signs of approval or the reverse. On the other hand what we thought of it, is plainly set forth in the Editorial columns of our issues of the 1st and 15th February, 1898. We there showed that Dr. King's explanation, was no explanation, and that his report from beginning to end was an incomprehensible muddle, that no one could understand it, and that no administration could act upon it.

Our criticisms appear to have been amply justified, nothing has been done, and the evil day has only been postponed. We hope that the same farce is not about to be played over again, that the report, now called for will be more lucid and that some tangible results will follow. At any rate we cannot forbear a smile over the past fiasco, and the advent of the new report will be looked forward to with eagerness on our part.

Now what is the condition of affairs in Madras? We read in a communication dated the 7th September, that "the death-rate shows a considerable improvement on the late conditions, it having dropped from sixty-nine to sixty-two per mille. It is still terribly high, as the mean for the ten previous years was fifty-three."

It appears then that what may be called the normal death-rate of Madras for August stands at the appaling figure of 52 per 1000, and that recently it has gone up as high as 69.

There is no plague in Madras to account for this enormous death-rate! Madras is under its normal conditions, and presents us with an object lesson not easily forgotten, one of the largest centres of population in India, in an advanced age which boasts of its progress in everything pertaining to Sanitation, with a death-rate which is little short of a scandal.

There is absolutely no reason why Madras should be unhealthy or [illegible] its situation & climatic conditions are concerned, it is the capital of the healthiest Presidency, and under normal conditions its [illegible] ought to be superior to that of either Calcutta or Bombay.

[illegible] is entirely perceptible that it is largely the result of mismanagement and ignorance of some of the primary laws of sanitation, and especially of the [illegible] the simple and elementary fact that the condition of the soil is of the first importance to the health of what it supports, be it vegetables, animals, or cities.

It is a striking and curious fact that exactly the same sanitary error was committed in Madras as in Bombay, that is, the introduction of a large water supply before any arrangements were made for carrying it off.

It would appear as if India were to the hands of a school of sanitarians who think that sanitation begins and ends in a pipe water supply. This cult, the fashionable one of the day, unfortunately appeals to everyone, to Governments, to laymen, to engineers etc., and the ease with which huge and expensive water supply schemes are passed, is little short of marvellous.

One would really think that water was the most poisonous fluid on the face of the earth, and that such a thing as a well must be utterly damned, while the truth is that no fluid is more easily purified and that wells with proper care can almost invariably be made perfectly safe.

There is a strong reaction now setting in against the long dominant theory that water is the usual vehicle by which many diseases are introduced into the system; but so powerful an ascendency has this idea taken over many minds that we see the authorities rushing, as it were panic stricken, in search of some distant source of water, and conveying it for miles in a complicated and expensive system of pipes, before they ever think of asking themselves how they are going to get rid of it, after it has supplied their various needs.

That an efficient drainage system should precede the introduction of a constantly flowing river of water would, one would think, be a truism that would appeal to the veriest tyro. But unfortunately such is not the case. Nor are Bombay and Madras, the only examples where the cart has been put before the horse, and the river run into the town before the drains were constructed to carry it away again.

We believe that at the present moment this same fatal course is being pursued at Karur (Coimbatore).

In our remarks on the Madras Sanitary Report for 1896, in our issue of March 1st, we pointed out that these water schemes had not been a success, and that they had not been followed by any improvement in the health of the inhabitants.

In the city of Bombay and in the town of Madras they have been accompanied by the gravest evils. The constant inflow of water added to that normally present, has been greater than the outflow, and the soil has been gradually converted into a swamp.

Mr. Harris in his paper published in our issue of the 1st October, divides the recent medical history of Madras into the antidiluvian and deluvian periods, a most happy classification, and draws attention to the extreme dampness that now prevails, both in the soil and in the habitations of the less wealthy classes.

Unfortunately the topography of Madras does not readily lend itself to natural drainage, so to amend or rather to modify the result of their own carelessness the

[illegible] to try [illegible] those [illegible] into [illegible]

The [illegible] stations [illegible] this [illegible] outlay [illegible] evil results, and [illegible] of Madras is worse than the [illegible].

And still the [illegible] reports. But what further [illegible] we know not; it is as obvious as [illegible] that the present unhealthy condition of the town of Madras is entirely dependent upon [illegible] conditions of the soil, by far the most important of which we maintain is the saturated condition of the subsoil. Restore the soil to a healthy state and the excessive mortality of Madras will become a thing of the past. But how?

Well we suppose the cheapest method for an impoverished country would be to cut off the pipe water supply and revert to the use of wells. The site of Madras appears to be such that the almost insuperable obstacle of enormous expense opposes itself to any other efficient plan.

For our part we should like to see a plan adopted which has proved most successful in George town, Demerara. We should like to see large canals cut through the city with their banks lined with foliage trees. This plan is admirably suited to such a climate as Madras, and we are firmly convinced it would make it a healthy and beautiful town.

Should however things drift on from bad to worse as they are at present doing, the town must sink into desuetude and perhaps be finally abandoned altogether.

Should the medical and sanitary history of the deserted cities of the past ever be written, it will provide us with many instructive and useful lessons. Such cities are to be found [illegible] here and there over most parts of the world, and there is nothing which strikes the traveller with such a sense of gloom and loneliness as these monuments of past activity and splendour; their silent streets overgrown with rank and neglected vegetation harbouring unseemly reptiles, their crumbling and weather stained walls the haunts of midnight prowlers and beasts of prey, appeal to the most phlegmatic, while.

> "Over all these hangs a shade of fear",
> "A sense of mystery the spirit daunted"
> "Which says as plain as whisper in the ear"
> "The place is haunted"

The cause of the desertion is in most cases wrapped in obscurity; perhaps some mighty cataclysm like that which engulphed Herculaneum and Pompeii is indelibly stamped on the minds of mankind for all eternity, but for the most part we have to be content with superstitious legends, imaginary prophecies, or the ravages of fire and sword. Some cases however have been handed down to us where slower and more insidious causes have been at work, and when disease, the result of faulty sanitation has been the determining cause of desertion. Such was the case with a large and flourishing town in the island of Milo, one of the Cyclades, a graphic description of which was given some years ago by a French writer whose name we regret we [illegible] recall, and which was rendered desolate by malaria.

[illegible] the [illegible]

"In the 6th century [illegible] Annis a flourishing town, [illegible] extensive salt lakes. It was the [illegible] the sea had thrust upon our coasts [illegible]

CHARLES IX. collected engineers from all parts of France to fortify it. LA ROCHEFOUCAULD [illegible] CONDE, alternately laid seige to it and defended it during the religious wars. The Great Cardinal [illegible] broken fortifications and made it a powerful rival of Rochelle whose destruction he had sworn; there he formed a Government, he built a hospital, an arsenal and immense magazines. This town, of four hundred houses, with large throughfares crossing each other at right angles, famous for a royal siege and a naval siege, containing a large agricultural administration, a convent and a numerous garrison, was Brouage.

But malaria has for at the last two centuries reduced this town, once so powerful and so populous, to a state of the most utter desolation imaginable. This grand city of other days is now so miserable that it is necessary to add a wretched hamlet to it, to raise it to the dignity of a commune."

Perhaps some such words as these, the future historian will be able to apply to the populous centres of Bombay and Madras.

THE ADMINISTRATION REPORT OF THE COMMISSIONERS OF CALCUTTA FOR 1897-1898.

THE year 1897 1898 cannot be looked upon as a favorable one for Calcutta, and Earthquake, Famine and Plague have left their marks on the Municipal revenue and expenditure,

The revenue, we find, fell short of the revenue of the previous year by Rs. 49,856, and was Rs. 1,59,941 below the estimate.

Of the former sum Rs. 13,425 is accounted for by "a falling-off in the collections of the General Rate in consequence of the damage to houses by the earthquake during the year, which compelled the occupiers of tenanted houses to vacate them"

Many of the other sources of revenue suffered from the same cause.

Under the head of Hospitals and Vaccination we find a decrease of Rs. 3,122 "mainly due to the absence of any contribution from Government for anti-choleraic inoculation and to the decrease under "Fees for vaccination." There was a slight increase under "Fines under the Vaccination Act."

Under the head of Expenditure we find that the total expenditure was Rs. 42,018 less than in the previous year this in spite of the fact that there was an increase of Rs. 94,4[illegible] under the head of "Bubonic Plague." In this connection it is noteworthy [illegible] of expenditure [illegible] Rs. 11,[illegible] Rs. 2,130 [illegible] on [illegible] to us [illegible] the anticipation of plague [illegible]

[illegible] We also note that [illegible] effected on the advice of the Health Officer and Assistant Health Officer, all these are no doubt excellent ways of setting one's house in order, and preparing for the struggle with a destructive epidemic.

Under the heading of Litigation we learn that "there was a fair increase over last year in the total number of prosecutions. The fines, however, were altogether inadequate and non-deterrent in their effect."

"Year after year it has been noted that the punishments imposed by Honorary Magistrates are ineffective, and in many instances tend to offer a direct premium for the infringement of Municipal law." Thus the average fine for "building houses without sanction" was only Rs. 1-6, for "altering drains contrary to orders" Rs. 4-6-6 and for depositing offensive matter on public streets, Rs. 1-2.

Under the Vaccination Act, in the Town proper and the amalgamated area, there were 871 prosecutions against 763 in the previous year, and the amount of the fines was Rs. 182. The prosecutions were (1) for not vaccinating children after notice, and (2) for not bringing children for inspection after vaccination.

We will be curious to see what will be the fate of the vaccination laws in this country. We fancy that the anti-vaccinationists in England will not be satisfied with their victory there, but will use their best endeavours to extend its sway to the Indian Empire. If this unfortunate result is attained, small-pox, which at present is on the decline, and appears to have been brought fairly under control, may be expected to increase by leaps and bounds.

Calcutta is provided with a double water supply, one filtered the other unfiltered, extensions made to the pipes for filtered water amounted to 2 56 miles during the year; the total length is now 314 62 miles.

In addition to petty pipe extensions 15 62 miles were added to the unfiltered water pipes.

The consumption of filtered water was less, and of unfiltered water more than during the previous year.

The consumption of filtered water per head per day is estimated at 38 10 gallons in the town and 11 26 gallons in the suburbs, and of unfiltered water 12 51 gallons.

The brick sewers suffered from the earthquake, the one most affected being the main outfall sewer between Circular Road and Palmer's Bridge silt-pits. It was found necessary to put in 663 lineal feet of strong tie rods and to wedge all the cracks, altogether 1·12 miles has to be repaired.

The sewerage was further improved by the construction of a number of gully-pits, man-holes, flushing chambers, etc., and the construction of new model latrines and urinals.

The long mooted question of the drainage of Fort William is still in statu quo. We learn that, "in June 1897, the Executive Engineer, Fort William, forwarded a project for the establishment of a pail-depot in Olive's Ravelin, to be connected by a sewer with the municipal sewer in the [illegible] Road. This project was approved by the Engineer of the Corporation. In March 1898, the General Committee resolved that the [illegible] might be [illegible] the [illegible] of Government, Rs. [illegible] a year [illegible] to pay for the use of the [illegible] main sewer. [illegible] the close of the year the Government of India [illegible] for information regarding the charge in lieu of sewer-rate, and the advantage of the proposed sewerage system over the present plan of discharging by cart into the Calcutta drains on the Budge-Budge Road."

This looks as if the Fort were to enjoy for a few more years, the odours for which it is notorious, and which at times makes some of its gates almost impassable.

Considerable progress was made with the New Drainage Works which include a scheme for the disposal of storm water and sewage outfall of the town area, and suburban drainage north of Tolly's Nullah. The work of pipe-laying under the nullah was begun in October 1897. The canal authorities sanctioned the closure of the nullah to keep out the tidal water, and the work was progressing rapidly when a difficulty arose in supplying water to the Docks, the dam had to be cut and the work postponed.

Considerable difficulty was also experienced in laying the Ballygunge main sewer on account of quicksands which greatly retard the progress of the work.

The quantity of sewage lifted at the Drainage Pumping Station at Palmer's Bridge reached the enormous average of 18,087,898 gallons daily against 17,627,801 for the previous year.

14,276,250 cubic feet of rubbish were deposited during the year in the Salt Lakes, chiefly in the Southern area of the square mile against 13,824,000 in the previous year.

HEALTH OF CALCUTTA. VITAL STATISTICS.

The birth-rate for 1897 was 18 4 exactly the same as for the year 1896, that is higher than it was in five out of the previous eight years.

The death-rate was 36 1 or higher than any year in the previous eight with the exception of 1895 when, according to the Health Officer's report, it was 39·6.

These figures compare very badly with what prevails in England and Wales, where the birth-rate averages about 30, and the death-rate under 20 per 1,000.

For the year 1895, Madras town recorded a birth-rate of 42 5 and a death-rate of 38, and Bombay City a birth-rate of 19 35 and a death rate of 40·99. The mean death-rate in Bombay for five years was 30 77.

In Calcutta the birth-rate was as usual highest amongst Christians and "other classes" and higher amongst Hindoos than Mahomedans.

There were 79 still-births to every 100 live-births.

A decline in the public health of Calcutta was noticed in the reports of 1895 and 1896. A similar decline is noticeable in 1897, this decline was greater in the suburban area than in the old town area, and in the area bordering on the circular canal than in the rest of the suburbs.

Under "mortality according to age" we learn that out of the 24,665 deaths that took place during the year, no less than 6,817 or more than a fourth part occurred under five years; again, "while the death-rate per 1,000 between 5 and 60 years is not excessive for an oriental city, that between the ages of one and five years is at least five or six times what it should be in a healthy town, while under one year it amounts to 253·5 per 1,000 which is proportionately as excessive."

This high infant mortality derives special significance from the fact that it has been steadily increasing since 1892. "The alarming state of things disclosed by these statistics," we read, "calls for speedy attention from the sanitary authority of the city." In his report for the year 1895, the late Health Officer, Dr. SIMPSON, drew attention to this insanitary aspect of Calcutta in the following words :—

The high mortality among infants is a prominent and discreditable feature of Calcutta, and urgently calls for improved sanitation in connection with the construction and cleanliness of dwellings and the proper regulation of the milk-supply, in addition to an improvement of the general drainage and cleanliness of the town. Though a good deal of any improvement in the health of the infant population will, in the long run, depend on the spread of sanitary education among the masses and particularly among the female section of the community, a considerable part of it lies within the range of public hygiene ; and this particularly applies to the laying down of proper rules and regulations for the construction of sanitary dwellings and for the control of the milk-supply of Calcutta, to the removal of the defects in the general drainage, and to the adoption of proper means to secure an efficient daily cleansing of the town."

In the present report the Health Officer draws attention to the necessity of "setting apart of suitable localities for cowhouses in sparsely populated parts of the town, the construction or remodelling of all cow-houses and dairies on approved sanitary patterns, and the abolition of the sale of milk or its products by itinerant vendors having no fixed dairies or shops in Calcutta"

Regarding the causes of the high mortality recorded, it appears that compared with the mean of the preceding eight years there has been a rise in the mortality from all causes, with the exception of small-pox.

There were 161 deaths from small-pox during the year against a mean of 467

This unfortunately is no proof of the general diminution of the disease, for in only three of the previous eight years was the mortality higher, and owing to sudden and intense epidemics large fluctuations occur. Thus in 1895, 2,220 deaths were recorded, followed by 69 deaths in the succeeding year.

Again while the increased mortality from the other groups into which diseases are classified, is a formidable indictment of the sanitation of Calcutta, no comfort can be extracted from the lessened number of deaths from small-pox.

———:o:———

THE OUTBREAK OF TYPHOID FEVER AT MAIDSTONE.

WE are indebted to the "*Public Health Engineer* for the detailed report on the Maidstone Typhoid Epidemic which has been issued in the form of a Parliamentary paper by the Local Government Board.

We take the following extracts from the "conclusions" arrived at :—

"On a review of the whole of the evidence, we have no hesitation in coming to the conclusion that the epidemic was caused by the pollution of the water supplied by the Maidstone Company from their Farleigh sources. It is true that there is abundant testimony to show that grave sanitary defects exist in the construction of some of the sewers, and of many house drains and waterclosets within the borough ; while one of the expert witnesses, Dr. CORFIELD, said that, in his opinion, these defects were sufficient to account for the epidemic. But the sudden and simultaneous outbreak of fever over a wide area, and the rapidity with which the epidemic grew, cannot be accounted for by the existence of defective conditions of sewerage and drainage. Further, the facts as to the local incidence of the disease, which have already been stated, are not consistent with the theory that these conditions had anything to do with its origin. The old brick barrel sewers are almost all in the lower part of the town, which was comparatively free from attack, especially at the commencement of the epidemic ; and the hand-flushed closets and defective house drains are distributed pretty equally over the whole town, whereas the cases of typhoid fever were confined to the Farleigh area of water supply to an extent which quite precludes the possibility of mere chance."

"It was objected that the evidence, strongly as it points to the pollution of the Farleigh supply, was circumstantial, and established grounds of suspicion only. But it was supplemented by other facts, which appear to us to leave no room for doubt. The chemical analyses of samples of water taken from some of the springs after the epidemic broke out, show that the Farleigh supply had been dangerously polluted ; and the bacteriological examination of the samples from two at least of the springs afforded conclusive evidence of excremental pollution by man or the lower animals. Dr. SIMS WOODHEAD, indeed, contended that his examination did not definitely prove that this was the case, and that the colonies which he found were merely indicative of what he called "surface relations." It would be beyond our province to discuss the difference of opinion between "Dr. SIMS WOODHEAD and the other experts who were examined as to the exact significance of the discovery of the Bacillus Coli in water, or as to the proper classification of bacteria of this species ; but it may be pointed out that "relations" between water supplies and the "surface" of gardens and fields like those which surround the Farleigh sources must be extremely dangerous. And in this case the evidence shows clearly that the neighbourhood of some of the springs was immediately before the outbreak, plentifully covered with human excrement. It has moreover, to be borne in mind that Dr. WOODHEAD's samples were taken some time after the water had been examined by Dr. WASHBOURN, and that consequently the condition of the water may have altered considerably. The testimony of the scientific witnesses at the inquiry was to the effect that the Bacillus Typhosus is seldom or never recognized in water, so that the fact that it was not discovered in this case is not remarkable, even if no allowance be made for the time which had elapsed between the introduction of the poison into the springs and the examination of the water. With reference to the fact that there was no history of any recognized case of typhoid fever in the neighbourhood of the Farleigh springs before the epidemic, it may be remarked that cases of typhoid fever are not always recognized and notified."

"The evidence given by Mr. ADAMS regarding relationship between the fever and conditions of rain-fall and level of subsoil water as affecting the Farleigh sources of water supply is of much interest. The facts adduced by him on this point, if they cannot be held as definitely proving the relationship he seeks to establish, are nevertheless suggestive of causative connexion between these factors and the outbreak of typhoid fever. His contention, however, that these conditions were also related with prevalence of "premonitory" diarrhœa in the borough of Maidstone shortly before the outbreak of fever, is based on less sufficient evidence. Indeed, the data upon which this contention is based are too incomplete to warrant acceptance of the belief that the fever outbreak was actually preceded by prevalence of diarrhœa of a sort differing materially from the seasonal diarrhœa usual in towns during the summer. While this is so, yet the evidence, as far as it went, suggests that there had been a special incidence of diarrhœa on the areas within the borough of Maidstone supplied by Farleigh water, and that, in the opinion of at least some medical men in this town, the diarrhœa was of unusual character. These statements, coupled with there having been, mainly in August and September, an unusual prevalence of colitis in the asylum, render it to be regretted that fuller evidence should not have been available on this subject."

In this expression of regret we most cordially join, but unfortunately subsoil water investigations are difficult to make, and are rarely carried out in a completely satisfactory manner. It is extraordinary that PETTENKOFER's great work on this subject has not led to more important results.

Further on in the report we find the following. "We are of opinion that many of the cases of typhoid fever in the borough of Maidstone were due to defects of drainage and sewerage, with consequent pollution of the soil underlying the town. The reponsibility for the existence of these unsanitary conditions lies with the Town Council, whose duty it was to take steps that would lead to effective remedy of these defects. This duty they have in large measure neglected, notwithstanding that for many years the Medical Officer of Health has in the plainest language repeatedly warned them of the risks to which the health of the inhabitants of the borough was exposed by the continuance of these unsanitary conditions. The Town Council, therefore, cannot plead ignorance of the facts by way of excuse for their failure of duty in this respect—a failure of duty which has led to the gravest consequences."

From all this it appears that the importance of the soil, saturated and contaminated, is becoming more and more recognised and appreciated as a potent factor in the etiology of typhoid fever.

THE PLAGUE FIASCO IN CALCUTTA.

AT the time of writing Calcutta has been for seventeen days free from fresh cases of plague, so that it is highly probable that before these words appear in print, the curtain will at length have been rung down on the doleful fiasco that has been played in the city and has run its weary course for the last six months.

We really are quite unable to decide who is most to be congratulated on the result, the Supreme Government which with its host of followers and idlers will now be able to enjoy its usual season of festivity and levity in in the city, the Municipality with a heavy weight of care and responsibility removed from its shoulders, the merchants and traders with brightened prospects of increasing business, the native population relieved from the fears of segregation and inoculation, the special plague officials and imported nurses who are drawing their salaries for doing nothing, the taxpayers who at length see a prospect of their valuable services being dispensed with, or finally, we ourselves for having consistently from the beginning scouted the idea that plague had ever been really present at all.

The false prophets have been discomfited, and henceforth their best refuge will be in silence. Where now are the ugly forebodings, the gloomy brows, the mysterious head shakes and oft repeated warnings? What has become of the terrible epidemic so often prophecied, so wonderfully postponed? It was to have come with the rains, but it did not! The end of the rains was to have seen it lighting up, by the beginning of the cold weather its ravages were to have been enormous! And yet *mirabile dictu*, in spite of all these soothsayers' fancies, here we are in the middle of October, and instead of the plague increasing by leaps and bounds, it has disappointed all its sponsors and has chosen to die a natural death.

That plague, if plague it was, should have manifested itself in Calcutta just at the beginning of the season, that we have always been told, was most unfavourable to it, and that then it should die out just at the beginning of the season supposed to be most favourable to it, is such a very curious concatenation of events, that we must really ask to be pardoned if we cannot accept it all without some slight demur.

We have had a good deal of talk mostly in the lay press, (which in India is peculiar for the knowledge it professes to have of medical matters), of one season being favourable and another unfavourable, of the plague only flourishing in the cold weather and dying out in the hot, and other nonsense of the same kind, for which only the flimsiest evidence can be produced. We have been told a good deal from time to time of the habits of plague by those who set up to know, or were supposed to know, but the statements made have mostly appeared to us reckless, without any solid foundation, and curiously suited to the exigencies of the hour and the necessities of the situation.

What we now want to know is, why has the plague, we cannot call it the *epidemic of plague*, died out? Why has it behaved so differently in Calcutta to what it has done in other places? Why has Calcutta not followed in the steps of Bombay?

[illegible] that [illegible] difficult to answer [illegible], yet ascertained in proper manner they must be in the near future which [illegible] Plague Commissioners [illegible] render an account of their stewardship in their [illegible] books.

If there is something about Calcutta that is particularly obnoxious to the plague, by all means let us know it, it will be an important addition to our knowledge. It can hardly be said that the city is too clean and its sanitation too perfect for the health of the plague germs; that the population is too well housed; that there is not sufficient overcrowding, or that the cleansing department does its work too thoroughly for even a plague bacillus to escape its notice.

We certainly none of these things can be said! And ignorant as we are of the means by which the supposed plague effected its entry, we will in the end probably be more so as to the cause of its exit.

The disease to which the name of plague has been given, has been in Calcutta for six months, not confined to one special locality, but spread extensively throughout the city. Yet it has not been carried into the adjoining districts, though the restrictions placed upon the movements of the population have been almost *nil*. With the exception of Baripal, where we hear some *suspected* cases occurred, not a single case has been brought to light.

The year has so far been a healthy one and for this we must be thankful, but as for the nature of the disease that has been so carefully watched, guarded, and tabulated, we are unfortunately, but little the wiser.

As far as clinical evidence goes, there is plenty of it to show that this special disease, a form of malignant typho-malarial fever with or without glandular affections, it has been known and has prevailed in Calcutta for years.

As far as bacteriological evidence goes, and we gather that a very limited number of bacteriological examinations have been made, the plague bacillus has been found. We have no reason to doubt the accuracy of the results obtained, nor do we see sufficient reason to doubt the accuracy of the results obtained by Dr. SIMPSON in 1896. We will suppose that the bacillus was found on both occasions, and draw the conclusion that Calcutta has now safely passed through its second visitation of plague.

Assuming however that the true bacillus of plague was present in the majority of the cases, it must be admitted that it is extremely difficult to account in any reasonable manner for the course taken by the disease.

Is Calcutta to stand forth as the one grand, solitary instance of an overcrowded filthy oriental city which has been invaded by plague, and yet has escaped unscathed?

There is on the other hand no difficulty in assimilating the course of events to the clinical evidence, which points to an *endemic* disease, subject like all endemic diseases, to seasonal fluctuations and cyclical variations.

THE EXTRAORDINARY MEETING OF THE COUNCIL OF THE INDIAN MEDICAL ASSOCIATION.

In accordance with Notice issued by command of the President, the Seventeenth Meeting of the Council of the Indian Medical Association was held at its Office, 52 Bow Street, Calcutta, on Tuesday, the 4th October 1896, at 6 P.M. An adjourned session of the same Meeting was held on Wednesday, the 12th October 1896 at 6 P.M.

Present:—Dr. LAL MADHAB MOOKERJEE, Rai Bahadur, (President in the Chair), Dr. E. W. CHAMBERS, (Vice-President), Drs. H. W. JONES, K. G. SIRCAR, H. C. HOSSACK, RAKHAL DAS GHOSE and JAMES R. WALLACE.

Business:—(1) The Notice calling the Meeting having been read, the Minutes of the last regular Meeting of the Council were read and confirmed.

(2) The Secretary presented the names of twenty-one new members who had applied for admission to the Association. They were duly elected.

(3) THE INDIAN MEDICAL ASSOCIATION PROVIDENT FUND.

The Secretary reported that 223 members had already joined the Association Provident Fund, irrespective of a large number who would become members as soon as Surgeon-Captain WADE made over the statement of accounts and moneys belonging to the Warrant Medical Officers' Provident Fund. The Secretary represented that as three or four subscribing members of the Association Provident Fund had already died, it became necessary to allow their claimants to receive some benefit from the Fund, and that this could only be done with the sanction of the Council. He therefore requested that permission be granted to float and work the Fund at once, in spite of the fact that the full compliment of 500 members had not yet been attained.

Resolved.—That the Indian Medical Association Provident Fund be started forthwith, and that payments be made now and henceforward to claimants on the Fund, on proof of claim in accordance with the Rules of the Fund.

(4) MEDICAL AND SANITARY ASPECTS OF THE NEW MUNICIPAL BILL.

After a full discussion of this subject it was resolved that the Secretary do prepare a statement embracing the suggested alterations in the new Bill in connection with the Medical and Sanitary aspects of the same, and that such statement be forwarded to the authorities.

(5) GOVERNMENT DOCTORS AND PRIVATE PRACTICE.

The letter from the Government of India in regard to this matter having been read, it was resolved that the Secretary of State for India be now approached in view to having the unjust and iniquitous monopoly of private practice by State-paid doctors removed. The Secretary was desired to prepare a statement in connection with this matter, setting forth the whole official correspondence in regard to the same.

(6) MEDICAL PROFESSORIAL AND HOSPITAL APPOINTMENTS IN INDIA.

In view of certain Medical and Surgical appointments recently made in the educational and hospital staff of local medical colleges an important discussion was raised in the Council. After due consideration of the subject in all its phases, it was

Resolved I.—That in view of the vitally important fact that all medical schools in Great Britain and Ireland

in the British Colonies and in the Dependencies of the British Empire, whose teaching curricula and diplomas are accepted by the General Council of Medical Education of Great Britain, are compelled to recognise certain fixed academic qualifications for all their teachers, and that these conditions are binding on the medical educational agencies of the Indian Empire, and that any violation of these conditions is likely to endanger the acceptance of the certificates and diplomas of Government Medical Schools in India, and thus inflict an irreparable injury on locally trained medical students and practitioners who resort to Great Britain for degrees and diplomas, the Council of the Indian Medical Association desires to express its emphatic protest against the violation of the conditions which govern the appointment of teachers in the Medical Colleges and Schools of India which are recognised by the General Medical Council of Great Britain.

II. That the Council acting under a sense of deep concern and anxiety in the interests of medical students in Indian Colleges, which are entirely under the control of the Government of this country, desires to express its alarm at certain recent appointments in the local medical colleges, in which the incumbents do not fulfil the qualificational demands of the General Council of Medical Education of Great Britain.

III. That in view of the damaging influence of such questionable appointments, not alone on the reputation of Indian Medical Colleges themselves, but on their alumni both in this country and abroad, the Council desires to express the earnest hope that appointments to the medical educational institutions and hospitals of India under the control of Government, shall under no circumstances be made in violation of the conditions which are compulsory for all incumbents who aspire to the important positions of teachers and consulting physicians and surgeons to such institutions.

IV That in view of the important fact that the positions of Consulting Physicians and Consulting Surgeons to Educational Hospitals under the present circumstances of medical and surgical practice in India, confer on these offices a distinguished prestige, which of necessity commands the confidence of the public, both lay and professional, as consultants, it is incumbent on the Government in nominations to such offices, to be guided absolutely by the requisite academic qualifications, which not only are demanded by the regulations of the highest medical authority of the British Empire in matters of medical education, but by which the public interests in consultative practice can alone be met efficiently, and with that needful security to which danger to life in serious conditions of disease demand.

V. That in view of immediate action being taken by the authorities in connection with these Resolutions, a copy of the same be forwarded to the Chief Secretaries of the Supreme and Provincial Governments, to the Director-General of the Indian Medical Service, to the Inspectors-General of Civil Hospitals, to the Directors of Public Instruction as well as to the Presidents of the Medical College Councils of the various medical colleges controlled by the State in India.

With the passing of the above resolutions and a vote of thanks to the Chair, the meeting was closed.

COMMENTS AND NEWS.

NO MORE OFFICIAL PLAGUE IN CALCUTTA. THE GOVERNOR'S DECLARATION THAT THE CITY IS FREE. OFFICIAL PLAGUE MANUFACTORY STILL TO BE KEPT GOING.

THE following *Calcutta Gazette Extraordinary* has been issued :—

It is hereby notified for general information that Calcutta is free from plague, and that all inspections of, and restrictions regarding, travellers from Calcutta have been withdrawn.—E. N. BAKER, Officiating Secretary to the Government of Bengal.

RESOLUTION.

The Lieutenant-Governor has the great pleasure of announcing this day that Calcutta is now free from the infection of bubonic plague, no fresh case of or death from that disease having occurred for ten days since the last reported case was discharged cured from hospital on the 28th ultimo. By a Notification No. 6026 of this date, all inspections of, and restrictions on, travellers proceeding from Calcutta have been withdrawn, and detailed orders to this effect have been issued to the authorities concerned. By Notification No. 14 of this date, the Lieutenant-Governor has also withdrawn those provisions of Plague Regulation No. 14, dated 7th June, 1898, which require that the passengers and crew of all vessels leaving Calcutta for any port *out* of India, or for Rangoon, Aden, or the ports of the Madras Presidency, shall be medically examined *on shore* at the time of embarkation. The passengers and crew of such vessels will now be subject to medical examination either on board or on shore, as may be found convenient, and provision has also been made, in the case of passengers, for the acceptance of a certificate signed by a Commissioned Medical Officer, in lieu of such examination, as was the rule in force, under Plague Regulation No 3 of 17th August, 1897. By these orders both the foreign trade of the port and the inhabitants of Calcutta who have occasion to travel, will be relieved from the restrictions which the outbreak of plague in April last, now happily at an end, rendered it necessary to impose

While, however, the Lieutenant Governor has with the satisfaction he shares with the whole community, taken the earliest opportunity to declare that Calcutta is free from the infection of plague, he feels it incumbent upon him to utter a word of warning. Though the town is free from the immediate presence of plague, it is too soon to assume that the danger is wholly past. The beginning of the cold season is now at hand, and the experience gained elsewhere shows that this season is liable to be accompanied by renewed activity of the disease. While, therefore, he earnestly hopes and believes that the plague, which had obtained but little hold on Calcutta and has now quitted the city, has gone for good, it is nevertheless of the utmost importance that there shall be no relaxation of the precautions which are being taken to prevent an outbreak of the disease and to detect cases promptly if they should occur. The Lieutenant-Governor trusts that the ward, caste and family hospitals which, with such praiseworthy generosity and public spirit have been opened by many sections of the public and by private individuals, will be maintained in working order for some months to come: and he particularly desires that the special efforts which have been made by the Corporation to make the town clean and keep it so may in no respect be remitted. It

would be a grievous error to [illegible] hospitals have taken [illegible] that [illegible] required; or to [illegible] because the [illegible] has made good its hold upon the town, that [illegible] sanitary measures taken during the past few years have been unnecessary. The Edinburgh Governor relies, as heretofore, on the [illegible] co-operation of all citizens of the community to [illegible] the relaxation of the vigilance which has thus far been attended by success, so that if unhappily the disease should again present itself at our doors, it might find us still prepared to meet it.

NATURE AND SIGNIFICANCE OF LEUCOCYTOSIS.

Dr. [illegible] MUIR, Lecturer on Pathological Bacteriology, Edinburgh University, opened this discussion on this subject at the recent meeting of the British Medical Association, in these words. "The subject of the discussion which I have the honour of opening is at once one of the most important in modern pathology, and has also a most important bearing on clinical diagnosis and prognosis."

After alluding to the very extensive nature of the questions opened up he said:—"I shall take as the main subject of my remarks the nature of leucocytosis as a process in general pathology. What is the fundamental change on which the leucocytic excess depends, and what is its standing in relation to the question of tissue reaction?"

The term leucocytosis may be applied to any condition in which there is an excess of leucocytes over the normal whether in the tissues, or part the vascular system; local, or general leucocytosis.

"The general facts are well known—that in many acute inflammatory conditions, occurring naturally or experimentally produced, such as pneumonia, erysipelas, etc., and especially in suppurative conditions, the number of leucocytes in the circulating blood may be two or three-fold the normal, or even more. Further, a similar condition may be said to be produced by the introduction into the body of various chemical substances, of which the most important classes may be said to be (*a*) bacterial products, especially the so-called bacterial proteines; (*b*) extracts of various organs or tissues rich in cells, such as spleen, bone-marrow, etc., (*c*) a great variety of definite organic compounds—for example,—peptone, curare, nuclein acid, etc."

It has been shown by recent researches, especially by those of GOLDSCHEIDER and JACOB, with which the author's researches agree, that this condition of leucocytosis is real, that the total number of the leucocytes circulating in the blood is increased.

"There are two points which also must be kept in view. (1) The variety of leucocyte in excess in these conditions is almost exclusively the finely granular (oxyphile or neutrophile), actively amœboid leucocyte, with polymorphous nucleus (2) the enormous rapidity with which the leucocyte increase occurs—namely, a doubling or more of the normal number in a few hours."

ORIGIN OF THE FINELY GRANULAR LEUCOCYTES

Dr. MUIR briefly described the varieties of leucocytes met with in man and discussed their distribution, and gave reasons for the opinion he had formed, that the finely granular, polymorphonuclear leucocytes "are formed chiefly, if not entirely, from the bone-marrow and enter the blood-stream in their fully formed condition."

LEUCOCYTOSIS IN INFLAMMATORY CONDITIONS.

There is no evidence to show that these polymorphonuclear leucocytes multiply either in the tissues or in the blood, and an important question arises, namely, Are any important changes found in the bone-marrow when there is an increased production of this form of cell?

The author's researches [illegible] He says:—"I find that there [illegible] which is readily recognisable. [illegible] and absorption of the fat of the [illegible] hyperplasia of cells; and further, [illegible] the cells increased in number are [illegible] cells which may be called [illegible] which are the source of the finely [illegible] number of mitotic figures present shows that these cells are undergoing rapid multiplication. The [illegible] eosinophile cells are relatively and [illegible] diminished. Erythroblasts or nucleated red corpuscles are also much diminished. The giant cells may undergo degenerative change and in great part disappear. (These cells do not contain granules, and are probably derived from the larger hyaline cells.) The marrow in such a condition presents a striking deviation from normal, and the change may be said to be of a corresponding nature to what occurs in the erythroblasts after hæmorrhage (great increase in their number and increase in the mitotic figures). If we call the latter the "erythroblastic" type of marrow, then we may call that which I have described the "leucoblastic" type of marrow. This fact appears to me to throw light on the whole subject. If we consider the finely granular cells as a class—say in a case of suppuration—we find (*a*) locally an enormous number of finely granular leucocytes (pus corpuscles); (*b*) in the blood a great increase in the number of the same cells; and (*c*) in the marrow a great increase in the cells from which these leucocytes are derived."

The phenomena of leucocytosis are explained by the action of chemotactic substances, such as bacterial products. In some cases the quantity may only be sufficient to act locally, but when in larger quantities, these substances are absorbed into the blood-stream and produce general leucocytosis.

In interpreting the phenomena we may then say: (1) That the local leucocytosis is a most important means of defence; (2) that the proliferative changes in the bone-marrow are the means by which the leucocytes concerned may be supplied in large numbers at any given place of need; (3) that the leucocytosis in the blood is an indication at least that this supply is being maintained. We may also mention that the vascular arragements in the marrow are such as, on the one hand, to permit a ready action upon its cells of chemotactic substances circulating in the blood, and, on the other hand, to allow a free and rapid passage of the cells into the blood.

It is to be noted that chemical substances must be the means by which a general leucocytosis is brought about, and therefore it is not surprising that it can be produced where there is no local inflammatory change. Whether in such a case the leucocytosis really acts as a means of defence by combining with toxins in the blood, for example, in the leucocytosis following injection of diphtheria toxin, must still be considered an open question.

RELATIONS OF THE FINELY GRANULAR AND HYALINE LEUCOCYTES.

I have said that in view of their chief sites of multiplication the great majority of leucocytes fall into two series, one including the lymphocytes and hyaline cells which multiply by mitotic division in lymphoid tissue, lymphatic glands, malpighian patches of spleen, solitary glands, etc., the other including the finely granular leucocytes and the finely granular leucoblasts of the bone-marrow, with possibly the eosinophile series.

Now if we consider these two [illegible] described, and suppose an [illegible] other, we have an explanation of the [illegible]

[illegible] is well to [illegible] this instance [illegible] the by-products and it may be of [illegible] In the other forms we have an increase [illegible] (narrow cells.)

LEUCOPENIA.

On the contrary, the number of leucocytes may occur with extraordinary rapidity in inflammatory or injective conditions. The destruction is chiefly on the part of the finely granular polymorphonuclear leucocytes. Leucopenia may be due to a number of causes, for instance in severe septicæmia and toxic conditions an enormous leucocyte degeneration and destruction can be traced in the spleen and to a less extent in the bone marrow, and in certain circumstances there is great leucocyte accumulation associated with phagocytosis in these situations.

It is to be observed that in many cases the conditions determining the leucopenia are of an unfavourable kind, whether they be excess of toxic substances in the blood, excess of leucocyte emigration due to rapid inflammatory spread, rapid leucocyte destruction, etc. It is essential that where there is leucopenia the circumstances that bring it about should be accurately ascertained.

Leucopenia exists in several chronic conditions, as, pernicious anæmia, some cases of chlorosis and anæmia with enlargement of the spleen. Here again the diminution is chiefly on the part of the polymorphonuclear leucocytes, and this association with defective blood formation or with alterations in the function of the bone-marrow is worthy of note.

In the discussion which followed Dr. MUIR'S observations, Dr. EDMONSTON CHARLES remarked on the absence of polymorphonuclear leucocytes in Malta fever, and thought that this might assist in its differential diagnosis from typhoid and other fevers.

GROUNDLESS FEAR OF LIGHTNING.

WE take the following from the *Scientific American* :—"A current news item given the result of an investigation carried out by Dr. G. STANLEY HALL, president of Clark University, on the things that most excite fear in people. Of the 298 classes of objects of fear to which 1,707 persons confessed, thunder and lightning lead all the rest, although in certain localities, as, for instance, those subject to cyclones, etc., the fear of the latter predominates. It may be accepted as probably true that thunderstorms constitute the most pronounced source of fear with the majority of people, due, no doubt, to the always impressive and not infrequently overpowering nature of the phenomenon. But is there any justification in fact for this fear so far as fatal results are concerned?

We believe there is not, but on the contrary, that many other causes which barely have a place in Dr. HALL'S list are infinitely more entitled to the distinction as fear producers than lightning. As proof of this we may cite statistics of the United States Weather Bureau. These show that for the four years 1890-93 the deaths from lightning numbered 784, or an average of 196 a year. Again, H. F. KRETZER, of the *Times* found from the record of nearly 200 newspapers that for the five years 1888-88 there were 1,030 deaths caused by lightning, or an average of 206 a year. We doubt whether of the number of deaths classed as "accidental" in the Bulletin [illegible] any one group can show so small a number. In New York city alone over 200 people are drowned every year, while nearly 150 are burned or scalded to death, and about [illegible] persons meet their end by falls of one [illegible] duration, contrasting the record of 200 lightning deaths per year for the whole country with this above records for New York [illegible] accidental deaths for every year, it will be seen how groundless is the popular fear of lightning. Such a condition is inherited superstition.

But there is another point in connection with this matter which ought to be particularly comforting to city dwellers, albeit country dwellers may not be affected by the statistics, and that is, that statistics show that the risk of [illegible] is five times greater in the country than in the city. The cause of this immunity of city dwellers is not far to seek. It is doubtless due to the predominance of metal earth, the well grounded water pipes in houses, and probably as much as anything to the protective network of overhead electric wires of all kinds. The popular belief that a stroke of lightning is invariably fatal is also not borne out by facts. Indeed, one record specially devoted to this feature shows that of 312 persons struck, only 74 were killed. Taking it all in all, there seems to be no more groundless popular fear than that of lightning. Indeed, if one can go by statistics, the risk of meeting death by a horse kick in New York is over 50 per cent. greater than that of death by lightning.

Yet with all the weight of statistics against its deadliness, lightning will probably continue to scare people as heretofore. Perhaps, after all, there may be a more direct cause than the mere psychological one usually ascribed to it, and that is the fact that many people of nervous temperament are affected hours before the approach of a thunderstorm and thus rendered particularly powerless to stand the strain which more or less affects the most phlegmatic natures during a disturbance in the heavens."

INDIAN MEDICAL SERVICE REFORM.

THE following is the reply of the Government of India to the Memorial forwarded on 24th July 1896, to the Secretary of State for India on the subject of the separation of the Civil from the Military branch of the Indian Medical Service, in pursuance of the Resolution passed at a Public Meeting of the Bombay Presidency Association, held on 18th April 1896, under the presidency of the Hon. Mr. PHEROZESHAH M. MEHTA :—

No. 5386 of 1896. GENERAL DEPARTMENT.

Bombay Castle 27th September 1896.

To the Honorable Mr. PHEROZESHAH M. MEHTA, C. I. E., M.A., Barrister-at-Law.

Sir,—In continuation of the letter from this Government No. 3593 of the 14th August 1896, I am directed to inform you that the Memorial has been considered by the Government of India. Their views which are concurred in by the Secretary of State are as follows :—

Many of the statements contained in the Memorial have been demonstrated to be inaccurate, so the Government of India considered more particularly two of the main arguments used by the Memorialists in favor of the changes advocated. These were (1) that the present system has resulted in inefficiency in the conduct of the work in the higher medical appointments, and (2) that the proposal of the Memorialists—of which the main outline was that there should be in India a separate Army Medical Service and a separate Civil Medical Service entirely independent of one another—would result in economy,

As to the first contention, the Government of India are of opinion that the Civil work of the Indian Medical Service has been very well performed, that appointments to special duties in the higher branches have been made with special reference to the qualifications of the officers selected, and that the Government have no reason to be dissatisfied with

the manner in which the selected officers have carried out their duties. With regard to the suggestion that the method of filling the Civil Medical Service independently of the Army Medical Service would result in economy, the Government of India observe that the scheme sketched out in paragraph 16 of the Memorial is too vague to lend itself to discussion and that they do not feel justified in entertaining a proposal to subvert entirely the system on which at present both the Army and Civil Medical Departments are officered, without having some well-considered alternative to suggest. This was not supplied in the Memorial, which the Government of India therefore regard merely as an additional indication of the need for placing on a better footing that portion of the Medical Service which is recruited from among the medical students trained in this country. The Government of India are confident that the proposals since placed before the Secretary of State (which are detailed in the Home Department Resolution No. 1140-50, dated the 22nd August 1894 which has been published in the *Government Gazette*) will go far to satisfy the legitimate aspirations of the students of medicine in India who elect to enter Government service.

I have the honor to be, Sir, your most obedient Servant.

E. B. STEWART, *Acting Secretary to Government.*

DO WOMEN PERFORM ILLEGAL OPERATIONS ON THEMSELVES?

SAYS the *Medical Times & Hospital Gazette*:—"To many doctors, the idea of an unskilled woman being guilty of an attempt to perform an illegal operation on herself indicates such an amount of fatuous folly as to appear almost incredible. In view, however, of the prominence which "illegal operations" are enjoying at present, and the circumstances attending some of them, it becomes important to question as to whether or not, the presence of a perforated wound into the peritoneum, through, or in the vicinity of the uterus, necessarily implies a second person as operator. It is very difficult to obtain reliable evidence on such a point, but the evidence to be had leads to the belief that women not unfrequently attempt to procure abortion for themselves by illegal operations. For such purpose they use such dangerous implements as bonnet pins, and the like, and the ease with which they thus provoke internal hæmorrhage acts as an encouragement to them to persevere in their efforts. The sensitiveness of the uterus and upper part of the vagina is not at all great, and it is by no means unlikely that a resolute woman might endure the pain self-inflicted in producing a perforated wound. We should be glad if our readers would furnish us in confidence with cases of the kind which have come under their observation. For a woman to operate thus on herself with success is probably rare, but cases seem to occur where this does happen. Probably the woman has some little knowledge, when she operates successfully."

A MEDICAL ENIGMA.

Two poor to himself to meet his craving for ease and luxury, COUNT CHERON so cleverly feigns serious illness that he has for more than a year puzzled and deluded the smartest doctors and thus enjoyed the benefits of every hospital in Chicago where he has for weeks together, been tenderly nursed and fed on delicacies. Being able to raise his temperature to 103° or 104° F and accelerate his pulse to 120 or 130 beats per minute, his favorite plan was to simulate a dangerous fever; though he could develop all the symptoms of a wide range of illnesses in such a way as to completely deceive the doctors. One trick of his to elicit the sympathy of the nurses was to be found in the streets in a dying (?) condition as the result of intoxication, and so to bring the victim of unrequited affection; but he was soon bowled out and had to seek new fields for the exercise of his novel arts; as he was not so constant to the aspirations of his alleged, hard-hearted lady love as to his scheme of imposition.

THE DOCTOR AND DOGGEREL.

THE following verses on medicine as a profession, by EASTON WESTON'S appeared in a recent number of the *Scotsman* and should be read by those who contemplate taking up medicine as a method of earning a livelihood:—

When a jolly young fellow obtains his degree,
His heart is expanded with gladness and glee,
And he thinks his life mapped out as plain as can be
Since he got himself dubbed as a doctor.

But after a little he alters his lilt,
The gingerbread loses its glitter and gilt,
And he thinks he will take the Queen's bob and a kilt
To get rid of this job as a doctor.

He must travel the country side, uphill and down;
In the winter he's blue, in the summer nut-brown;
If he's tired from the sole of his foot to his crown,
It is only his luck as a doctor.

For to do a good deed loses half its delight.
If he gets out of bed in the dead of the night
To patch up a pauper who's been in a fight
And requiring the aid of a doctor.

So all you young fellows, where'er you may be,
The height of whose wish is to get a degree,
Just chuck it whenever these verses you see,
For they come from the pen of a doctor.

DEFINITIONS OF THE "PATHIES."

The *Clinique* says that a jolly correspondent quotes and forwards the following definitions:

Christian Science—Suggestion *plus* absurdity.
Divine Healing— " " faith in God's mercy.
Osteopathy— " " massage.
Hydropathy— " " water.
Metaphysical Healing— " fog.
Hypnotism— " " sleep.
Spiritualism is somnambulism, and
Theosophy is an intellectual pleasantry.

To this we might add that there are ill-natured people who would say that homœopathy is suggestion in material, plus *drugs* in infinitesimal doses. There are even members of the "regular" profession, we believe, who would seem to hold all medicine to be principally suggestion. At least, we have heard of a celebrated hospital physician and teacher in London, who, at a clinical lecture, told his students to pay all their attention to diagnosis and prognosis. After an exhaustive dissertation on a case, he was leaving the bedside without prescribing any treatment, when the house physician asked what he should give the patient. "Oh," said the physician, "a hopeful prognosis and anything else you please."

PROFESSIONAL SECRETS.

MADE known to a doctor by a patient in the course of consultation should be preserved inviolate, is what our esteemed contemporary the *Medical Times and Hospital Gazette* emphasises, and we agree with him that it would be wrong in principle and ruinous in practice to give the police information of every crime (or rather what the law calls crime) which comes under medical notice professionally; as there are many instances where under the seal of confidence the doctor learns of matters that may be an offence, but should a patient betray a positively homicidal or suicidal tendency or at times be a violent maniac needing restraint or

[illegible] proper precautions for the [illegible] of others, it is the doctor's bounden duty to avert [illegible] consequences by warning those exposed to risk. These exceptions, however, are few and as the fixed rule is [illegible] we must admire those who decline at at all risks to betray confidence reposed in them; but we must not too severely blame a doctor who deviates from his duty to his patient in this respect, owing to fear of threats by those who administer the law.

AN ASSISTANT SUPERINTENDENT FOR THE HEALTH DEPARTMENT—A PROPOSAL BY THE CALCUTTA HEALTH OFFICER.

THE effectiveness of the Health Department as a whole depends primarily in my opinion on the efficiency of the individual officers constituting it If, for instance an incompetent Superintendent is appointed, all the Inspectors under him will get slack, or be taught to do things the wrong way, or somehow make a mess of them The Superintendents come in contact with the Inspectors in a way that I myself cannot. If I went round with an Inspector every morning it would be a month before any individual Inspector got his second lesson. He could certainly not get instruction on more than 12 occasions in a year even if I did nothing else. One of the most important functions then of the Superintendents is to teach the Inspectors and get them into a good method of doing their work Any man who knows his work and can teach his sub-officers and keep them up to the mark is worth paying for, any one who has not these educational and personal qualifications is not worth his salt On these grounds I am of opinion that the appointment of Assistant Superintendent should be abolished and a fourth Superintendentship should be made in its place on a salary that would attract suitable men None of the applicants in any way come up to my standard of what a Superintendent should be Two of my native Superintendents are good men, considering that they have not had the advantage of the excellent sanitary education that can now be obtained in England, and I have no idea of making a clean sweep of such men. But I think the introduction of one or two highly trained and experienced English certificated men would have a very good effect in improving the class of work turned out by everybody Such men could also be promoted to fill the office of Chief Superintendent if at any time it fell vacant. I should propose to offer Rs 350 rising by annual increments of Rs. 25 to Rs 450 a month plus a horse-allowance of Rs 50 I believe that this pay would attract men of the class I propose to employ I have no doubt that men would be forthcoming if advertised for, as in consequence of a passing reference in the "*Sanitary Record*", the journal of the Sanitary Inspectors' Association, two such men have written to me by this week's mail, asking for employment (*vide* letters attached). The proposed pay is not more than has been given to Superintendents, as the Budget of 1895-96 shews that one of the Superintendents was getting Rs. 400 per mensem plus Rs 30 horse-allowance.

JAW-BREAKERS.

SAYS *the Morning Post* —The following is what a fond father wrote to his son as a mild rebuke for the latter's objectionable habit of always, when writing his home "effusions," using jaw-breaking words .—

"MY DEAR SON,—In promulgating your esoteric cogitations, or articulating superficial sentimentalities and philosophical or psychological observations, beware of platitudinous ponderosity. Let your observations possess a clarified [illegible] [illegible] comprehensibleness, [illegible] coalescency and concatenated cogency. Eschew all conglomerations of flatulent garrulity, jejune babblement and asinine affectations. Let your extemporaneous descantings and unpremeditated expatiations have intelligibility without rhodomontade or thrasonical bombast. Sedulously avoid all polysyllabical profundity, pompous prolixity, and ventriloquial vapidity. Shun double entendre and prurient jocosity, whether obscure or apparent. In other words speak truthfully, naturally, clearly and purely, but do not use big words."

TEN DAYS FREE FROM PLAGUE.

THE attention of the Committee of the Bengal Chamber of Commerce having been drawn to the fact that an erroneous impression prevails that when ten days have expired without a further case of or death from plague, Calcutta may be declared non infected under Chapter II, Section 2 of the Venice Sanitary Convention, it is intimated that a letter has been received from the Secretary to the Government of Bengal, Financial Department, stating that, under the terms of the Convention the ten days begin to run from the "recovery or death of the last case." The last case of Plague detained in the Calcutta Hospitals was discharged cured on the 28th September the ten days would therefore not expire until the 8th instant. The matter is receiving the close and constant personal attention of H H. the Lieutenant-Governor, but it rests with the Government of India, and not with the Government of Bengal to issue the notification declaring Calcutta free from infection Since writing these lines the Government has declared its plague removed!

ACONITE POISONING.

SAYS the *Medical Age* —'The only English case, in which the active principle of aconite has been used as a poison is the case of Dr. LAWSON who poisoned his brother-in-law, PERCY MALCOLM JOHN, to obtain the sum of £1,500, in which he had a reversionary interest through his wife The brother in law was a youth of eighteen years of age, paralyzed in his lower limbs from long-standing spinal disease The youth died in less than four hours after taking a gelatin capsule containing some white powder which he was told was sugar LAWSON was arrested, tried, condemned, and hung. The difficulty of proving the presence of a rare vegetable alkaloid in the body after death was the reason no doubt why LAWSON fixed on aconite as the poison he used"

A BIG FEE.

THE *Hyderabad Chronicle* writes :—"We learn that the trouble between Dr LAWRIE and Mr. SHEIKH OOMER in regard to the fee leviable for the symphyseotomic operation performed on the latter's wife, for which a fee of Rs. 2,000 was claimed, has been adjusted. Dr. LAWRIE having informed Mr SHEIKH OOMER that he accepted his assurance that he was not able to pay a larger sum than Rs 800, and that with the sanction of the Resident, he would receive that sum as payment of his fee. Surely Mr. CRAWFORD will not allow a payment so exorbitant to be accepted by a medical man in the service of the Government of India."

We consider Rs 800 a small fee for such an operation, especially when performed by so eminent a surgeon.

MUNICIPAL NUISANCES IN CALCUTTA.

SAYS *Indian Engineering* —"There is a more serious nuisance than that of the removal of *mutchra* or town-refuse by rail along the Circular Road of Calcutta. We would invite the attention of the Chairman of the Corporation to the worse than eyesore, the standing menace to public health, at the Jaun Bazar end of Circular Road, in the midst of a densely populated centre, in close proximity to a large European

[illegible] of Calcutta [illegible]. If [illegible] attention to this [illegible] night soil [illegible] combined [illegible] or plague [illegible] real good [illegible] wasting time and money in buying [illegible] and fancy fads."

CALCUTTA MEDICAL COLLEGE APPOINTMENTS.

THE recent appointments of Lieutenant-Colonel R. D. MURRAY, [illegible], as "Professor" of Surgery and of Lt.-Colonel G. F. A. HARRIS, M.R.C.S., L.R.C.P., as "Professor," of Medicine, [illegible] to the Council of the Indian Medical Association to protest against the nominations of the Government for these two important posts. Of course [illegible] to confirm these two medical officers [illegible] and important offices without committing a serious and grave breach of the Regulations of the General Medical Council of Great Britain. Our readers will approve of the just and necessary strictures which are implied in the Resolutions which have been passed at the last meeting of the Association Council and which are fully reported elsewhere in our current issue. We sincerely trust the Government will be properly advised by the medical administration of this country to cancel the very questionable appointment of men to offices, which by the dictum of the highest medical authority in the British Empire, they must be pronounced as being unqualified to fill.

A CLEAN SWEEP.

OUR "financial" contemporary *Capital*, which is an undoubted authority on matters Municipal in Calcutta, writes:—"When the Municipal Bill is passed it will be necessary to make a clean sweep from the Chairman downwards if really good results are expected. The present unsatisfactory position is not due to Babudom but to Chairmandom, Vice-Chairmandom, Engineeringdom, Health Officerdom, and all the other "doms" that follow in their train If the Government really desire that Calcutta shall be properly administered they [illegible] the executive is thoroughly up to the mark,—a thing which it has never been in the past, is not in the present, and we doubt if it ever will be in the future; unless the sweeping reforms that we have indicated are carried out."

THE PRACTICE OF REPEATING PRESCRIPTIONS.

A RECENT decision of the Ministry of Public Worship, of Education, and of Medical Affairs in Germany is of interest. Prescriptions for internal use in Germany may not be repeated for the patient by an apothecary unless the physician signifies his approval in writing. External remedies, however, may be repeated. Substances prescribed as eye-washes, or those for inhalation, for subcutaneous injection, or for clysters and suppositories are by this recent decision classed among internal remedies as regards their repetition, though the regulations as to bottles and labels that hold for external remedies still apply to them.

THE I.M.A. PROVIDENT FUND.

WE would invite the attention of subscribers to this Fund, to the announcement which appears in the Report of the Council's last meeting in this issue. We trust that as the Fund is now floated all who have held aloof hitherto will join at once. It will be observed that a few claimants have already an opportunity to reap a small benefit from the Fund. As the benefit to be derived from the Fund depends entirely upon the number of subscribers, we trust medical men and women will see the prudence and the necessity of combination in this important matter of family provision.

CENTRAL PROVINCES SANITARY WORKS.

THE principal undertakings of this class in progress during the past official year were in connection with water-supply, the most important being the improvement of the water supply and drainage of Jubbulpore. The question of a water supply for Hurda, which was under consideration, had to be postponed temporarily for want of funds, but good progress was made with the Wardha Works, which have been brought to completion.

THE [illegible]

IT is very encouraging to [illegible] to the suggestion [illegible] convert the *Indian Medical* [illegible] No less than 610 subscribers [illegible] wish to see the *Record* rendered [illegible] visitant in their homes. We fully [illegible] unit of the nearly four thousand [illegible] of the *Record* will withhold his glad acceptance of the [illegible] still wait however for a further [illegible] A few are probably too apathetic to write a few lines on a postcard intimating their desire to accept the weekly *Record* with its doubled subscription, while many [illegible] are waiting probably for the printed forms which will officially bind them to the terms of the change. Will every reader of the *Record* have the goodness to send us a spontaneous expression of his or her wish in this matter.

SHORT ITEMS AND PERSONALITIES.

The Secretary of State has sanctioned the proposals for improving the pay of Military Assistant Surgeons of the Indian Subordinate Medical Department. The service will be divided into four classes, on Rs. 85, Rs. 110, Rs. 150, and Rs. 200 respectively, the existing class on Rs. 60 being abolished. Promotion will be after certain fixed periods of service, the highest class being attained after nineteen years' service, instead of the present average of twenty-four.

Surgeon-Major-General Bainbridge has submitted a vigorous protest to Government against the abolition of the post of Secretary to the Surgeon-General from the 1st instant. Meanwhile Surgeon-Captain Burnet continues in the appointment, the Surgeon-General having proposed to the Government to allow the Secretary to continue *pro tem* pending a decision, after the consideration of the points set forth in the protest.

The nursing work at the General Hospital, Rangoon, is being carried on by two English nurses recently imported by the Municipality for three years plague duty, and others employed locally. Apparently Doctor Thomas, in charge of the hospital, who is also Port Health Officer, Rangoon, has construed the general strike as meaning resignation, and has employed new hands accordingly.

The Calcutta Medical School contemplates relinquishing its teaching in the vernacular. It will it is hoped insist not only on teaching its classes in English but formulate a new curriculum, embracing the matriculation of the Calcutta University as its educational standard of admission, and a complete course of lectures and classes equal to the requirements of the General Medical Council of Great Britain.

The Calcutta Health Officer has submitted the following important Bye-law for sanction by the Municipality:—"No person who is afflicted with leprosy or who has large open sores shall engage in the sale, or preparation for sale, of any article of food intended for human consumption, or enter the places where such article of food is prepared, stored or exposed for sale."

The Eden Hospital does not at present enjoy a popular reputation for good management. It is said, among other things that the work of [illegible] is not [illegible] supervised as it should be, [illegible] the Native Goodena Schoole, and that a great deal of the work that should be done by the [illegible] native menial servants.

[illegible] with [illegible] turpentine and [illegible] can strike [illegible] yellow color will [illegible] new appearance.

[illegible], C.I.E., I.M.S., is proving himself to [illegible] the cause of medical education in [illegible], and it is quite probable, if he is supported by the [illegible], that a good few valuable reforms will be [illegible] during his regime.

Objection has been raised by the Inspector-General of Civil Hospitals, that the clinical teaching afforded to the pupils of the Calcutta Medical School at the Mayo Native Hospital is not satisfactory. The school authorities are therefore taking steps to put their house in order.

The Fancy Fair in aid of the Simla Ripon Hospital, which was opened by Lady Elgin, has been a great success, and it is probable that the funds of the hospital will benefit to the extent of eight to ten thousand rupees after all the expenses are paid.

We regret to announce the death of Dr. J. Crocq, Professor of Special Pathology and Therapeutics in the University of Brussels, which took place on September 18th. Professor Crocq, who was 74 years of age, was a member of the Belgian Senate.

Dr. Maillard, the Surgeon of H. M. S. Hazard, has been recommended for the Victoria Cross for the devotion he showed in attending to the wounded under a hail of bullets during the sudden attack made on our troops at Candia.

It is settled that Surgeon-General Harvey will be confirmed as Director-General of the Indian Medical Service from the 25th instant, when Surgeon-General Cleghorn retires.

Dr. King, Sanitary Commissioner for Madras, has addressed a letter to the Cochin Municipal Council, asking their opinion as to the feasibility of introducing Australian ghee in the local markets.

Captain Verhellen, of the Congo Free State, and Dr. Castelliote, now in Simla, have applied for permission to enlist men in India to form a police guard for an expedition they are undertaking in the Congo country.

Major A. M. Davies, R.A.M.C., has been deputed to Quetta and Wanowrie (*Poona*) to inquire into the the sanitary condition of these cantonments. There has been an abnormal amount of enteric at Quetta, and much sickness at Poona.

Mr. Chownker, Medical Officer in charge of the Mahratta plague hospital, died of pneumonic plague. The hospital assistant attached to the same hospital also died of plague. His death was followed by that of his wife the following day.

Miss A. L. Church, M.B., has been appointed to the charge of the new Victoria Dufferin Hospital in Calcutta. Miss Church is expected to arrive from home about the end of December.

Owing to the illness of his son Mr. Stephen, Colonel Stephen, I.M.S., has tendered his resignation, and goes Home immediately, thus rendering vacant the Inspector-Generalship of Civil Hospitals, Punjab.

The Sanitary Commissioner's report on the recent unhealthiness of Ootacamund contains severe strictures on the local authorities for the lax manner in which ordinary sanitary precautions have been carried out or entirely omitted.

In the [illegible] General Hospital, complaints are rife [illegible] nursing. Both these departments [illegible]

We regret to announce the death of Retired Assistant [illegible], who died at [illegible] on the [illegible]

[illegible] been [illegible]

[illegible] Cobb, I.M.S., [illegible] of the Presidency General Hospital has been granted an extension of leave for three months on medical certificate.

Major [illegible], Indian Medical Service, retires from the service, and Lieutenant [illegible], I.M.S., will be transferred to the temporary half pay list in November.

Major F. J. Peck, I. M. S. is reported to have secured 11 couples of hounds for the Mozufferpore Hunt. He and they are expected in November together.

Major Croly, R.A.M.C., Surgeon to the Commander-in-Chief, accompanies Sir Charles Nairne to England, and remains there on six months' leave.

Lieutenant-Colonel Pollock, R.A.M.C., has been appointed Principal Medical Officer of Gibraltar, vice Colonel [illegible]wood appointed Principal Medical Officer, Bengal Command.

The services of Dr. W. A. Justice, M.B., C.M., have been temporarily placed at the disposal of the Inspector-General of Civil Hospitals, Bengal, with effect from the 19th instant.

It is understood that a Plague Commission will shortly be formed, consisting of five members with a secretary. Three eminent medical men will be sent out from England.

Surgeon General Cleghorn, Director-General of the Indian Medical Service, retires from the 25th instant.

Dr. E. G. Russell from Calcutta has been in Mozufferpore in medical consultation over a bad case there.

Colonel Franklin, I. M. S. the Viceroy's Surgeon, takes one year's leave and accompanies Lord Elgin Home.

Captain W. Carr-Sprague, I. M. S., has been permitted to resign the Service from the 29th October next.

Dr. Lingard the Imperial Bacteriologist is seriously ill.

Medical Practitioners throughout the Indian Empire, and members of the Royal Medical Services are kindly requested to send Original Articles and Clinical Reports of cases for publication in the Indian Medical Record. This must be done if the local medical profession is to remove the reproach being cast upon it of apathy and neglect of its duty in literary matters.

Members of the Indian Medical Association who have not yet received their membership certificates are requested to apply for them at once to the Secretary.

Members of the Indian Medical Association who have not received a copy of the Third Annual Report of the Association, or previous Reports, are requested to apply for them at once to the Secretary.

Members of the Indian Medical Association whose subscriptions are in arrears are requested to forward their dues to the Treasurer without delay.

On and after the 1st October, all communications for the Indian Medical Record whether for the Editor, Proprietor or Manager, should be addressed to 80, Park Street, Calcutta.

Do you wish the "Record" to become a "Weekly" paper? Kindly send your reply on a post card.

[illegible] OF THE ABDOMEN TREATED BY EARLY OPERATION.*

PARTICULARLY rich as our clinic usually is in abdominal wounds, the interest has of late been specially directed to penetrating wounds caused by blunt force, for within a few months an unusual number of these cases has come under our observation, all of which were unusually interesting and instructive from the diagnostic and therapeutic difficulties which they presented.

Concerning the principles to be observed in the treatment of *penetrating* wounds of the abdomen, surgeons have of late been completely unanimous, and it is probably universally accepted that when a stab, shot wound, or similar injury penetrates the abdomen immediate laparotomy is indicated. In the treatment of *non-penetrating* wounds, however which present greater diagnostic difficulties than the others, there is as yet no settled rule, and it is only in the last few years that voices have been raised in favor of *earlier* surgical treatment in these cases also, in opposition to the former expectant treatment, according to which operative measures were delayed until there was undoubted evidence of wound of the internal organs.

I will for the present confine my attention to our experience in abdominal contusions complicated with wounds of the intestines. It is no intention of mine to follow the general custom of exhibiting startling recoveries, our experiences have been very trying and sad, but on that account they have been doubly instructive. We do not hesitate to publish our unfortunate results, hoping that they will lead to greater success both in our own hands and in those of others.

I will refer at another time to the wounds of other abdominal organs, as for instance the stomach, liver, kidneys and spleen, merely remarking *en passant*, that the spleen appears to be peculiarly susceptible to injury, in accordance with what is generally believed.

In an investigation made into this subject at my instance, by MÜLLER, he found that in 52·2 per cent of all deaths, caused by wounds of the abdomen due to blunt force, the spleen was more or less injured.

In the last year we have observed seven cases of abdominal contusions produced by blunt force in which the intestines were wounded. Five of these in the short period from December 1897 to the middle of March 1898.

L., B. L., 35 years old, was on the evening of the 7th April 1898, struck so severely in the neighbourhood of the navel by the pole of a wagon that he fell to the ground, and had to be carried home.

On account of the increasing pain he was brought to the clinic 18 hours after the injury, he complained of severe pain in the lower portion of the abdomen on the left side. He appeared haggard. Pulse 96, temperature 101·1°F., no tympanites, percussion note normal over the abdomen, the urine was drawn off with a catheter and was normal. No other injury could be discovered. 20 hours after the injury he vomited bile coloured and blood-stained matter, during the night he vomited several times.

Thirty six hours after the injury, temperature 99·6F., pulse very small, hardly perceptible, collapse. Left lower half of the abdomen very painful on pressure, slight tympanites no vomiting, no motion passed, but only flatus, 48 hours after the injury tympanites more marked, no vomiting, feels well.

10th March.—Morning temperature 99·2F., on the other hand pulse 130, very small, tympanites and tenderness have spread all over the abdomen. [illegible] after the injury, he vomited greenish, intensely [illegible] any sign of blood, tympanites very [illegible] diminished, severe collapse which [illegible] in the morning, on the 12th, and in which he died [illegible] after the injury.

The treatment consisted of opium, [illegible] by subcutaneous injection.

Post-mortem.—Perforation peritonitis, the abdomen which was much swollen contained foetid fluid, the loops of the intestines were stuck together and to the omentum by a thick purulent material, and were much distended, with gas; this gas escaped from a perforation in the upper part of the small intestine of the size of a lentil. In addition there was hypostatic pneumonia of both lower lobes and oedema of the lungs.

As vomiting only appeared 20 hours after the injury and soon stopped, and as the patient felt well, it was concluded, that there was no rupture of the intestine and that the admixture of blood came from a tear in the mucous membrane, probably of the stomach.

At first the tympanites was very slight and only what could have been accounted for by paralysis of the intestines from the injury, or by infection by micro-organisms which might have passed through the injured intestinal wall. It was only 60 hours after the injury that vomiting again appeared, the tympanites then developed rapidly and the liver dulness diminished and severe collapse set in.

The diagnosis of intestinal perforation was now easily made, it had previously been masked probably on account of adhesions which subsequently broke down, but on account of the severe collapse it was too late for an operation.

H. H. JOSEF, 27 years old, was on the 29th September 1896, bruised in the region of the navel between an iron beam and a furniture wagon. Shock was present on admission, pulse 80, very small, severe pain in the abdomen, no tympanites, liver dulness normal; no effusion into the peritoneum.

Twelve hours after the injury tympanites more marked, vomited twice, soon afterwards considerable effusion into the peritoneal cavity was made out. The whole of the abdomen was tender, pulse 112, severe collapse.

A wound of the intestines being diagnosed, 16 hours after the injury, laparotomy was performed, there was a large amount of coagulated blood about the transverse colon and lesser omentum which was separated from the stomach for about 4 inches. The abdomen was full of fluid, the small intestine was distended, the whole of the serous covering reddened and coated with purulent matter.

Close to the vertebral column, in a collection of effusion which was stained with blood and bile and mixed with air bubbles, an open end of intestine was found, the edges were bruised and the mucous membrane protruded, it corresponded to the horizontal part of the duodenum. To the left of this there was a second end, it appeared that the freely movable jejunum had been transversely torn away from the duodenum, the second end was also bruised and the mucous membrane protruded. In order to unite the ends as quickly as possible Murphy's button was used, one end was easily introduced into the jejunum, but there was considerable difficulty in introducing the other into the duodenum, on account of its being less movable; the serous coat was stitched around, it was soft and easily torn.

The next morning the patient had collapsed.

Autopsy.—There was a quantity of [illegible] bile in the abdomen. The stomach and intestines were [illegible] distended and covered with [illegible] exudation. [illegible]

* By Dr. Adolf Schmidt, from the Münchner Medicinische Wochenschrift. (Specially translated from the *Münchner Medicinische Wochenschrift* for the *Indian Medical Record*.)

[illegible] the wound [illegible], the [illegible] closed.

[illegible] as well as [illegible] serous coat of the [illegible] there was [illegible] dark coloured blood.

The [illegible] of the [illegible] the gut transversely, close to the vertebral column, the rapid onset of collapse led to the suspicion of a severe intestinal injury; the character of the wound explains the comparatively late occurrence of tympanites and vomiting of bilious matter. Diffuse peritonitis was found at the operation and this combined with the collapse rapidly caused death. A serious complication was present in the wound of the omentum and contusion of the colon, which would probably have led to gangrene.

III. K. Parsis, 45 years old, at about 6 P.M. on the 4th December 1897, was struck on the lower part of the abdomen by the corner of a heavy oaken plank which fell from a wagon. On admission late the same evening, he felt well, there was scarcely any sign of collapse and he only complained of severe pain to the right of the umbilicus. The abdominal muscles were tense, but there was no apparent dulness, no tympanites, he vomited mucus once while being examined, he passed a restless night and vomited bile stained fluid once.

At 8 A.M. on the 5th, he became collapsed, pulse scarcely perceptible, severe pain just below the umbilicus, slight dulness on the right side below and behind, the diaphragm was pushed up, liver dulness normal. No motion, no flatus.

At 11 A.M. 17 hours after the injury, a wound of the intestine being suspected, laparotomy was performed.

The incision was made over the seat of the greatest pain, along the outer edge of the right rectus muscle; there was a large effusion of blood in the connective tissue. On opening the peritoneum a quantity of muddy brown odourless fluid rushed out, in this the remains of food was detected. The parietal and visceral peritoneum was much reddened and coated with fibro-purulent exudation.

In a loop of the small intestines there was a hole $1\frac{1}{2}$ c.m. in diameter, with bruised edges; the edges were excised and the hole closed with a double row of stitches. About 10 c.m. lower down there was a second wound which cut the gut more than half through and the same distance further on there was a third perforation of the size of a pea, the intestine between them presented several bruises varying in size from a pea to a four anna piece, they were brown in colour, and dry in appearance.

To stitch up the largest opening would have much reduced the size of the lumen of the gut.

Excision of the whole of the injured part about 40 c.m. in length seemed indicated, but it was considered inadvisable on account of the low condition of the patient, therefore the loop of intestine was covered with silk protective and warm compresses, and drawn out of the peritoneum; the wound was closed with plugs of sterile gauze and 1000 c.c.m. of hot salt solution injected subcutaneously.

In the afternoon he felt comfortable, vomited once, pulse quick, small. The next day the patient felt well, the pulse was intermittent, but not altogether bad.

[illegible] a relatively good night, the abdomen was not [illegible], the loop of intestine that was drawn [illegible] when the warm dressings were changed, to be [illegible] and there was no rupture at the bruised places.

On the [illegible] December, six days after the injury, the [illegible] feeling well, there was no tympanites, and [illegible] in the abdomen; but the tongue was dry and the pulse small and frequent. In the night he suddenly [illegible] and he died collapsed.

[illegible] with a slight [illegible] purulent exudation which was [illegible].

The intestines were adherent to each other and to the abdominal wall, under the great [illegible] there were two places with fibro-purulent exudation. [illegible] the opening the [illegible] the adhesions between the loops of intestines.

There was found in addition muscular degeneration of the heart, multiple infarcts in the spleen, fatty liver, chronic granular gastritis and a tubercular lesion in the right lung.

In spite of the severe nature of the intestinal injuries (three large perforations and much bruising besides) we at first had hopes of saving the patient's life. There was no general septic peritonitis, but only a circumscribed fibro-purulent peritonitis,—probably due to the not very infective character of the intestinal contents, the relative earliness of the operation by which much of the fluid was evacuated, as well as the closure of the rest of the abdominal cavity by gauze plugging, and the rapid adhesions that formed. The patient felt comparatively well, the temperature rose for the first time shortly before death to 100.4 F, otherwise it was normal. Death however resulted from final exhaustion brought on by the escape of the contents of the intestines from the upper opening (particles of food were found in the abdomen) as well as by the other changes which were noticed and especially by the degeneration of the muscles of the heart.

IV. D. Johann, 29 years old, was on the 9th December, 1897 at 4 p.m. kicked by a horse several times in the lower part of the abdomen and on the shoulder he could not escape and vomited immediately after the first kick.

Several hours after the injury the patient was brought to our clinic in a severe state of shock. On the right side of the abdomen above the symphysis there was an undoubted swelling, the abdomen was very tender, there was dulness to the breadth of 3 or 4 fingers over the dependent parts on both sides. Pulse small, 72, intermittent every 3 or 4 beats, severe singultus; he twice vomited a quantity of bile stained mucus.—12 hours after the injury he felt fairly well. Pulse 100 regular, temperature 101.4° F; slight tympanites; no more vomiting, urine drawn off contained no blood.—24 hours after the injury the tympanites was worse, the pulse was good and he felt well, no localised pain, no flatus.—30 hours after the injury severe vomiting occurred, tympanites quickly increased. Pulse very small, 136, temperature 101.4° F. Laparotomy. The incision was made in the middle line; the abdominal cavity and especially the pelvis contained a large quantity of foul smelling fluid mixed with pus, all the intestinal loops were covered with purulent matter; diffuse septic peritonitis.

As even before the operation the patient was in an extremely weak and collapsed condition, and as the state of things found in the abdomen held out no prospect of recovery, I did not seek further for the perforation that was certainly present, but plugged the abdominal cavity and especially the pelvis with large gauze compresses and partly closed the abdominal wound. The patient stood it well (1000 c.cm. salt solution was injected), but died 18 hours afterwards (48 hours after the injury) was delirious, his pulse very frequent with high fever.

Autopsy.—Diffuse septic peritonitis. Close to the spinal column and lying over it there was a perforation of the size of a plum stone in the small intestine with bruised edges; there was a foul smelling exudation of pus mixed with fæcal matter throughout the whole of the abdomen. In addition there was hypostatic congestion of both lungs and a tumour in the spleen.

[illegible] and if the [illegible] intestine had been found [illegible] after the [illegible] noticed on operation, and [illegible] diffuse peritonitis [illegible], development could have [illegible] is questionable, [illegible] into the abdominal cavity [illegible] nature.

V. [illegible] years old, [illegible], on the 28th January [illegible] kicked by a horse in the back with such [illegible] forward and struck his abdomen against [illegible]; this caused such intense pain that he became [illegible], he vomited a glass of wine that was given to him. [illegible] hours after the injury, he was pale, his eyes [illegible], pulse strong, 80; no other injury apparent, no tympanites, liver dulness normal, in the region of the navel there was a [illegible] tender place about the size of the hand and slightly [illegible]. In the evening the pain was not so severe; pulse 104 regular, no tympanites, no flatus, he felt no [illegible]. On the 29th after a good night and morphia, he improved visibly and felt much better. The urine was drawn off and was normal. The pain about the navel had certainly diminished, temperature normal, pulse [illegible] 92. On the 15th the patient at first made no particular complaint, the abdomen was slightly distended, liver dulness normal; no fever, pulse good 100, tenderness only about the navel. In the afternoon between 4 and 5 P.M. he collapsed quite suddenly, about 60 hours after the injury; the temperature was high, the pulse 100, scarcely perceptible, the abdomen much distended, liver dulness diminished. Perforation was diagnosed and laparotomy at once performed.

A large incision was made in the middle line, at once on opening the abdominal cavity a quantity of gas and [illegible] fluid rushed out. On the left side of the abdomen the intestines were much inflamed, but shining, on the right side they were atonic and covered all over with [illegible] exudation. From a portion of one of the folds which was tightly bound with adhesions, there exuded a mixture of faeces and pus, a small portion of the adhesions was carefully removed and disclosed in the small intestine, above the ileum, two perforating tears close to one another, these extended for some distance into the mesentery, in which there were two other rents. The perforations and the holes in the mesentery were stitched up, and the wound closed.

He died, collapsed 12 hours after the operation.

Autopsy.—Diffuse feculent perforation, peritonitis; intestines [illegible], lightly adherent to one another, in the abdomen a quantity of stinking fluid mixed with faeces; there was no other perforation. There was in addition parenchymatous degeneration of the cortex of the kidney, and oedema of the lungs.

The clinical indications pointed to secondary perforation of a bruised and necrotic intestine, doubtless the two large tears in the ileum were caused directly by the injury, but they were for the most part closed by quickly developed adhesions, the adhesions were probably [illegible] by a movement of the patient and then followed [illegible] peritonitis as the result of the escape of the intestinal contents into the peritoneal cavity.

In spite of our previous experience, [illegible] to us that [illegible] were no threatening symptoms, [illegible] [illegible]

[illegible]

VI. G. [illegible] 1898, at half past eight in the [illegible] mission [illegible] from a large [illegible] by means of a lever, the lever [illegible] him violently in the abdomen. [illegible] was unconscious for a second. On [illegible] accident he complained of severe pain [illegible] to the left of the navel where the abdomen [illegible] deformed.

There was moderate shock; pulse good, 72. [illegible] ness begins four finger's breadth above the border of the [illegible]. The whole of the left side of the abdomen was [illegible] the right somewhat dull. The urine, drawn off with a catheter was normal. The proposal to perform an immediate exploratory laparotomy, on the probability of the [illegible] being injured, was refused by the patient.

An hour and a half later (4 hours after the injury) he complained of increasing pain and consented.

Laparotomy.—The incision was made in the middle [illegible], a quantity of muddy fluid, without faecal matter, and [illegible] ingly mixed with pus was evacuated. The perforation opening was only found after looking through a great part of the intestines, it was situated about 30 c.m. from the caecum, which had an unusually long mesentery and was lying in the middle of the abdomen.

The perforation was about 1 c.m in length and the [illegible] membrane was torn most extensively.

The intestinal wound which was opposite the attachment of the mesentery was stitched in two stages, the serous membrane was also stitched. Toilette of the abdominal cavity (careful swabbing with saline compresses). The cavity was stitched and 1000 c.c.m. salt solution injected. 17-3-98, he passed a good night, no vomiting, passed flatus. Abdomen not tender. 18 3 Had pretty severe pain in the night, hiccough. Vomited several times. Transverse colon (?) appeared much distended. Patient somewhat haggard; pulse strong, 100. Temperature normal. 19-3 Patient still more haggard, epigastrium distended, blood-stained vomiting, right side of the abdomen somewhat tender, pulse weak, 120, temperature once rose to 100 4°F., [illegible] normal, 1000 c.c.m salt solution injected [illegible]. 20-3 98, vomiting continues, liver dulness [illegible] tible to the left, normal on the right. The stomach was washed out and about 2 litres of [illegible] altered blood evacuated, after that he [illegible].

Abdomen no longer so distended. Salt solution [illegible] 21-3. Some vomiting, mucus was [illegible] but no more blood. Temperature normal, pulse 120, tongue moist, during the night there was severe pain in the abdomen, which became more distended; the breathing was affected; about midnight collapse set in [illegible] and at 3 A.M. he died (6 days after the injury).

Autopsy.—Sero-purulent peritonitis [illegible] portion of the intestine [illegible] finger could be passed through [illegible] a small quantity of red [illegible]

[illegible]

[illegible] … days held out [illegible] eventual recovery. The fatal result was [illegible] length of the mesentery which was noticed [illegible], through this the cæcum was drawn [illegible] and twisted, causing intestinal obstruction [illegible] recognised it might have been rectified by [illegible] the abdomen, but the perforation peritonitis which was known to exist concealed the true nature of the [illegible].

The peritonitis however had made no progress; the patient [illegible] recovered from it. Death occurred, not in spite of the operation, but as the result of a severe secondary complication.

After this series of deaths a case at length occurred in which recovery was due to operation.

VII.—K. Alois, 38 years old, at half past twelve on the 25th February, 1898, was kicked by a cow in the abdomen, he did not fall down, but the pain was so severe that he was obliged to sit down for a time. After half an hour he began to work again, and wheeled a hand barrow to his home about 20 minutes distant.

The pain was so severe that he went to bed, urine and fæces were passed spontaneously. On admission, six hours after the injury, the patient went up the steps of the hospital by himself, but he was driven to the clinic. The patient looked well, his expression was natural, he appeared all right, pulse fairly full, 102. Abdomen slightly full, but not excessively distended, a circumscribed spot on the left side below the navel appeared to be tender; in the left flank there was slight dulness. Seven hours after the injury the pain was localised in this patch, about the size of the hand; over this spot and corresponding to it in size there was a circumscribed tympanitic zone.

The liver dulness began three fingers' breadth above the margin of the ribs and reached to the fifth rib, pulse 110, temperature normal; some eructation, but no vomiting, no flatus passed since admission, general condition good, nine hours after the injury condition unchanged, but the pulse was weaker, temperature 101·2 F. Laparotomy. Incision in the middle line, from the opening was evacuated a quantity of yellow matter, mixed with pus and without a fæculent smell.

[illegible] the middle of [illegible] of the mesentery [illegible] same plane, with [illegible] were not much [illegible] the intestines close to the [illegible] collapsed. The cavity was carefully [illegible] swabs; a strip of sterile gauze was [illegible] the stitched portion was laid [illegible] small strip of silk was placed which [illegible] wound. The abdominal incision [illegible] exception of the lower angle through which [illegible] could be withdrawn.

The next day he felt well, there [illegible] temperature was normal, and the [illegible] after the operation jaundice appeared, and a [illegible] tion in the nose and upper lip, the [illegible] and a small quantity of muddy fluid, without [illegible] escaped. The general condition was satisfactory [illegible] temperature normal until the 10th day after the [illegible] when the temperature suddenly rose to 102·5° F. [illegible] small abscesses were found at the site of the [illegible] no interruption to the general improvement. The [illegible] gress was entirely normal, afebrile. Patient got [illegible] 1st April and felt well, appetite good. The abdominal [illegible] healed with a firm scar and without bulging. No [illegible] tion on the part of the intestines.

After our previous experiences, we operated early in this case, nine hours after the injury, in spite of the fact that the patient felt well. The following important signs pointed to rupture of the intestines. The fairly accurately localised tenderness, the circumscribed area of tympanites which corresponded to it, and the sudden diminution of liver dulness.

As nine hours after the injury the pulse was weak and continued frequent, and the temperature [illegible] operative measures were indicated.

Even so short a time after the injury there was fairly well marked peritonitis and the serous [illegible] covered with pus.

The perforation lay concealed in the pelvis, [illegible] probably sunk during the preparations for the [illegible] had the injured loop been in this [illegible] been wounded, there were no signs of [illegible] The third day after the injury jaundice [illegible] ed to a lesion of the liver, there was, however, [illegible] or other bad consequences. Had this [illegible] operated on, and the perforation closed, he would [illegible] have died.

VITAL STATISTICS OF CALCUTTA.

[illegible] of Deaths from Principal Diseases in Calcutta during the week ending 17th September to the [illegible] 1898.

Week ending	Cholera.	Plague. Sporadic.		Plague. Epidemic.		Small-pox.	Fevers.	Bowel complaints.	All other diseases.	Total.	[illegible]	[illegible]
	[illegible]	Seizures.	Deaths.	Seizure.	Deaths.							
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	...	1	[illegible]	51	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	...	...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Current Medical Literature.

[illegible]

[illegible] Treatment of Typhoid Fever.

[illegible] very strongly recommended by Dr. John B. Wheelock [illegible] when complicated with [illegible] from the bowels, pneumonia, or [illegible]. Arguing [illegible] the whist-player's maxim that though it is the last trick that wins the hand, it is really the opening lead that determines the final issue, he notes that the daily damage from the typhoid toxin is no greater in any one of the 28 days the fever lasts, and the culmination of the disease is only the resultant of forces put in operation at the beginning and whose accumulated effect is more obvious towards the end. Wherefore he thinks the stimulation of the nervous system is the *main* thing to be accomplished and the earlier the cold water bathing (baths repeated every 2 hours and each lasting from 15 to 45 minutes according to the severity of the case) is begun, the better, for though it does not itself destroy the toxins it combats their ill effects through (1) the abstraction of heat and by (2) stimulating the nerve centres to maintain functional activity and nutritive integrity by thermic and mechanical shock, which latter operates by (1) exciting the vasodilator nerves to prevent internal congestion by bringing more heated blood to the surface to be cooled by the water and (2) by stimulating the cutaneous nerves over a wide area to thereby reflexly stimulate the entire nervous system.—*Med. News.*

Statistics of Exophthalmic Goitre.

In the *International Medical Magazine* for April, 1898, Hertzen, of Philadelphia, publishes a short contribution to the statistics of exophthalmic goitre, based upon the analysis of 227 cases. 185 were females, 42 were males (4·4 to 1) The oldest female case was 68, the youngest 9 The oldest male case was 56, the youngest 16 The average age of all was between 30 and 31 (in 212 cases 30·33 years). The conclusions formulated by the writer are as follows

1. That exophthalmic goitre occurs approximately 4·5 times as often in females as in males among all people.

2 That the disease is most common during the period of active adult life, occurring earlier in females than in males.

3. That the disease is uncommon, if not rare, in the black race.

Referring to the surgical treatment of exophthalmic goitre, Jonnesco critically reviews the various surgical methods employed, and gives a detailed description of an operation for removing the entire cervical sympathetic He states

1. That in true exophthalmic goitre surgical interference is both dangerous and ineffectual.

2 Simple section of the cervical sympathetic is useless, though partial resection, including the first two ganglia, may give lasting results.

3. The operation of selection is total and bilateral resection of cervical sympathetic.—*Treatment.*

Nerve Disorders in Zymotic Diseases.

Two cases illustrative of the nerve disorders which attend upon zymotic disease are described in the *Annales de Medicine et Chirurgie Infantiles.* The underlying fever in each case was measles In both a manifest delirium was the most marked symptom. This condition appeared in one case as a sequel on the twenty-first day of illness and was ushered in by mental depression and attended by hallucinations. This patient gradually recovered. In the other [illegible] [illegible] which the invasion of [illegible] [illegible] duration to [illegible] the [illegible] [illegible] of both, which was delayed [illegible] [illegible] symptoms, began to abate, [illegible] proved fatal. The ages were [illegible] respectively. If these data are [illegible] are supported by the experience of [illegible] teach the importance of the nervous element as a factor in the pathology and treatment of children's diseases. This is probably of more consequence at or about the period of puberty, though it can at no age be overlooked. It is therefore the more to be considered in connexion with [illegible] or "suppressed" eruption. In its therapeutic aspect it must necessarily remind us of the paramount value of measures to hasten the appearance of the rash and frequently also of judiciously sedative treatment.—*Lancet.*

Carnogen or Red Bone-Marrow in the Treatment of Anæmia.

After two years consumption of Bland's pills, arsenic, large doses of iron and tonics of all kinds in the vain hope of curing her chlorosis, which got worse instead of better, Esther C—, aged 16 years, attended Dana's clinic for nervous diseases, where Dr. Robert L. Watkins placed her on Carnogen ℥ii t. d., and no other medicine; because while she had severe headaches in the brow running to the vertex, pains in the back—she had never menstruated—fainting spells digestive disturbances, constipation furnished ample evidences of weak circulation, examination showed no objective signs of disease except a most pronounced and striking, anæmia. She improved so rapidly that in a month after treatment her pallor decreased, there was very little headache and no more fainting fits while there was a large increase in the red corpuscles, which had also improved considerably in appearance, number, tone and form.—*Amer. Med. Surg Bul.*

Scarlet Rash after Enemata.

Eight cases are reported by Dr. G. H. Burford, of an ordinary soap water enema being followed, within a few hours, by an excessively irritable, rapidly developed and widely diffused rash chiefly involving the extremities and trunk, and lasting from 36 to 48 hours when it disappeared as mysteriously and as quickly as it arose. It was sometimes accompanied by pyrexia and malaise. Two similar cases are also mentioned by Dr. C. W. Buckling, who cautions against the too frequent and sometimes unnecessary employment of clysters as he has occasionally noticed mild symptoms of scarlet fever arise after the use of enemata, and he thinks that the rash is due to toxæmia caused by the absorption of fæcal matter liquefied by the injection of a large quantity of warm water.—*Brit. Med. Jour.*

Epilepsy from Lead Poisoning.

A Davidson reports a case where a man working in very confined places while painting the [illegible] of a ship, was admitted to hospital complaining of headache and [illegible] in an imbecile manner. He soon had delirium [illegible] by epileptic fits and unconsciousness and died on the fourth day after admission. Chemical [illegible] of the [illegible] showed traces of 0·6 grain of lead which was also found in fairly large amounts in the [illegible] [illegible] [illegible] was no kidney disorder, [illegible] [illegible] to lead poisoning.—*Lancet.*

[illegible] [illegible], [illegible] experience in [illegible] [illegible] [illegible] when the operation had [illegible] [illegible] operations for the last [illegible].

The advantages of vaginal [illegible] were (1) that the [illegible] and intestines were not exposed and (2) that the [illegible] was out of sight. The disadvantages were that it was impossible to introduce the hand, only two fingers could [illegible] and only the organs within reach of the finger could [illegible] with. The conditions for which he would perform it were (1) for plastic operations on normal sized uterus and ovaries, (2) for the removal of myomata up to the size of a child's head, (3) for the removal of ovarian tumours.

Dr. SANGER of Leipsic said that when it was possible to preserve one ovary or tube he would do so. He strongly advocated the MIKULICZ method of drainage. Dr. FEHLING of Halle, said that in doubtful cases he makes a puncture with the DIEULAFOY aspirator. He protested against the practice of removing the uterus and leaving one ovary.

Dr. MARTIN said that he made a point of inquiring into the history, for if due to gonorrhœa, expectant treatment was adopted, when due to sepsis it was less liable to be benefited by medical treatment. He did not use drainage.

Dr. MCCANN delayed operation until absolutely necessary. Dr. BYERS said there were many cases in which the question of pus could not be settled until the abdomen was opened.

Surgical Treatment of Pelvic Inflammation.

IN a discussion on this subject, Dr. CULLINGWORTH drew attention to the backwardness of this country in the treatment of these diseases. He put forward the following as points open to discussion.—(1) indications for operation in pelvic inflammation; (2) time to be chosen for operation; (3) methods of operation; (4) the extent of the principles of conservatism. In this paper he would deal with the first two only. The indications for operation were usually started as (1) inflammation of the connective tissue, and (2) inflammation of the peritoneum. As to pelvic cellulitis there was a general agreement that when there was no suppuration, no surgical treatment was needed, when there was the pus should be let out. In pelvic peritonitis operative treatment was not called for when due to simple catarrhal salpingitis, but only when pus was diagnosed; when operation was indicated after subsidence of acute symptoms and when bimanual examination showed a mass in DOUGLAS' pouch.—*Brit. Med. Jour.*

Verminous Tumors in Children.

FRAELICH, of Nancy, writing on this subject, says that generally speaking intestinal worms are not considered likely to produce suppurative or perforative lesions. However, in the case of lumbricoid worms, this parasite has been so often encountered in different lesions that it has been agreed to designate these as verminous abscesses or tumors. These abscesses are generally in the abdominal parietes. They may cause an encysted peritonitis.

By what mechanism do these lumbricoids leave the intestine? DAVAINE attributes their migration to an old perforation and a passage to the skin. When the abscess is opened the passage has disappeared. LEUCKHART believed that these worms could, by continued pressure, perforate the intestine and then cause abscess. Others admit that [illegible] can only occur by [illegible] a modification [illegible] lining through an enterocolitis. [illegible] [illegible] parasite elaborates a corrosive [illegible] which attacks the mucous lining. FRAELICH after [illegible] [illegible] [illegible] [illegible] irritation accompanied by general symptoms [illegible] helminthiasis. This irritation results in [illegible] [illegible] perforation. It is not, then, extraordinary that [illegible] [illegible] insinuate themselves into a mucous [illegible] [illegible] the perforation.

The abscesses due to threadworms do not [illegible] opportunity for discussion, the author having a [illegible] [illegible] convincing, from which he draws the following [illegible]: Threadworms can produce at the [illegible] [illegible] rectum, and at a distance from it, abscesses in which they multiply in great numbers. These abscesses have been produced by penetration of the inflamed mucous lining of a female laden with eggs into the rectal [illegible]. [illegible] deposits in the cellular tissue. These eggs may also be conveyed by the lymphatics.

An uncleanly individual may contaminate an entire family by transporting the eggs of the parasite under his finger-nails.—*Med. Age.*

Differentiation of Brain Tumors.

L. BRUN in an address delivered at the Moscow Congress said that although many of the symptoms of frontal and cerebellar ataxia are identical, he considers that monoplegia, Jacksonian convulsions, tonic deviation of the head and eyes to one side, and especially motor aphasia, denote frontal ataxia. On the other hand, paraplegia and alternating hemiplegias, visual paralysis on the side toward the tumor with crossed hemiplegia, double paralysis of the optic muscles and paralysis of the facialis and [illegible], distinguish cerebellar ataxia. He does not lay much stress on homonymous hemianopsia unless it exists on the right side from the first, combined with alexia and optic aphasia, when it indicates a tumor in the medulla of the left occipital lobe. He concludes by recommending percussion as extremely valuable. When the sensitiveness, tympanism and cracked pot noise are pronounced and extensive, they indicate plainly the general diagnosis of tumor, and when distinctly localized they point to its seat with precision, especially when the indications of the percussion sounds coincide with the symptoms observed. In the difficult differentiation of tumors in the central convolutions and neighborhood, distinctly circumscribed percussion sounds will often help more than even the cerebral symptoms, as they are scarcely possible unless the tumor is located at least near the cortex.

Suture of the Bile-Ducts.

IN the *Bulletin* of Johns Hopkins Hospital, April, 189[illegible], Professor W. S. HALSTED describes an ingenious device to facilitate suture of the bile-ducts. He states that to close an incision in the normal ductus communis choledochus has been considered so impracticable, not to say impossible, and the result of suture even of the abnormally thickened duct so uncertain, that it is the practice of all surgeons to wait weeks, months, or even years for the duct to dilate and thicken rather than interfere promptly in cases of obstruction of the common bile-duct by calculus. The operation may be postponed to "give nature a chance" to expel the stone, but never for the sake of giving the duct time to thicken. The dangers of this practice are many, and when at last the surgeon interferes the patient is very weak. By using little hammers which he has devised Professor HALSTED has sutured the common duct in dogs five times, and the common duct twice and the cystic duct once in man. The wall of the duct is clearly exposed and two prosection stitches are inserted to act as retractors. The incision is made between them. The stone having been removed the threads are drawn apart and a hammer of the proper size is introduced. The duct is gently raised from its bed and drawn by the hammer towards the operator. Mattress stitches of silk are then applied, one over the heel and the others in front of the handle. Although the finest stitches are used they necessarily perforate the wall of the duct, but no harm results as the duct is usually sterile.—*Lancet.*

[illegible] If we [illegible] not fail to [illegible] on obstetrics [illegible] some years ago [illegible] the *Edinburgh Medical* [illegible] obstetric material mounted [illegible]. This tendency to large [illegible] was not due to any special [illegible] but to the fact that a pre-[illegible] and most anxious thought [illegible] with his obstetric cases.

[illegible] pleaded for greater recognition [illegible] study, and he said that every [illegible] in the use of the various obstetric [illegible] instruments and appliances; and espe-[illegible] practised in the application of forceps [illegible] of version on the phantom.

[illegible] Labour.

[illegible] of London reported a case of [illegible] by operation and *post-mortem*. The [illegible] confinement in July 1895, but no labour [illegible] there were pains and hæmorrhage. [illegible] hospital she was very ill, abdomen enlarged, [illegible] heart sounds or movements were perceptible. [illegible] pregnancy diagnosed. Operation undertaken. [illegible] anæsthesia the fœtal parts could be felt, [illegible] the middle line and fetid fluid escaped. A [illegible] weighing 12 pounds removed. Uterus [illegible]. The patient died 28 days after opera-[illegible] examination proved conclusively that gesta-[illegible].

[illegible] Uterine Catarrh.

[illegible] of this disease: (1) Those associ-[illegible] discharge and no hæmorrhage. (2) Those [illegible] and slight hæmorrhage, and (3) [illegible] hæmorrhage is the main, if not the only, [illegible]. Post-climacteric hæmorrhages are in the main [illegible] (1) beginning cancer, or (2) the recrudescence of a [illegible] (3) occasionally from a form of uterine catarrh [illegible] endometritis as its cause. There symptoms are [illegible] those of malignant disease. There are present [illegible], general cachexia and emaciation, occa-[illegible] night-sweats, frequently pain in abdomen and [illegible] discharge, which is watery and semipuru-[illegible] contains a considerable amount of blood. [illegible] is much rarer than in cancer. The odor of the discharge [illegible] offensive but not necessarily so. Examination shows the uterus slightly enlarged, or at least, not normally atrophied, but not so large or fixed as in malignant disease. The introduction of the sound is very painful. The mucous membrane is hypertrophied, suc-[illegible] and easily detached. Microscopic examination of a [illegible] shows inflammatory changes, infiltration of leuco-[illegible], reduplication of cells, and granular degenerations. [illegible] appropriate remedies, senile uterine catarrh will [illegible] in a week or two, whereas this is of no avail [illegible] malignant disease. The diagnosis between this disease [illegible] fundal cancer is made by the slight, [illegible] the early [illegible] of fetid discharge; [illegible]

[illegible] of the [illegible] of the [illegible] difficulty in [illegible] tial diagnosis from [illegible] this should be made. [illegible] cancer and never develops [illegible] commended is rest, hot douches, [illegible] anthus, and chian turpentine [illegible] escharotics or curettage with [illegible] diagnosis is most important. [illegible]

The Belly Band.

As to the almost universal custom of [illegible] band, it is stated that the supposed advantages of [illegible] were (1) warmth, (2) retention of the [illegible] (3) prevention of umbilical hernia. Warmth could be [illegible] secured by a loose knitted shirt. Competent [illegible] asserted that there was a strong developmental [illegible] close the umbilical opening, and that [illegible] little artificial encouragement was required. [illegible] would seem that the application of a tight belly band would tend to compress the contents of the abdomen and so actually favor the production of umbilical hernia. In addition to this, the embarrassment of the movements of the [illegible] muscles aided in weakening the abdominal wall.—*N. Y. Med. Rec.*

Periodic Menstrual Psychoses.

Trenel relates a case of delirium with hallucinations occuring at the menstrual periods in a woman 37 years of age who had given birth to a child some years previously. The attacks took place in January, March, April, and May of 1896, and on the two last occasions were followed by melan-cholic depression lasting for a few days. Such cases are rare, but may be met with either in early, late, or middle mens-trual life, and may be acute, subacute, or chronic. The intervals between the menstrual periods are generally free from mental symptoms. The prognosis is relatively favor-able, 68 per cent. ending in cure, but the condition may be-come chronic, or may be followed by dementia, or may be transformed into ordinary insanity or perhaps into true periodic insanity. When there are coexistent lesions of the genital organs, removal of the ovaries may be indicated, and may sometimes give good results, but recourse to operation should be had only after a long period of observation. Treat-ment in the attacks should usually be carried out at home, and not in an asylum.—*Brit. Med. Jour.*

Treatment of Vomiting of [illegible]

Geoffroy is convinced that the [illegible] vomiting of pregnant women is due to [illegible] the digestive tube; that such contractures [illegible] the pylorus and the different portions of [illegible] or more particularly in the iliopelvic angle [illegible] this painful contraction at this angle is [illegible] sign of reflex hyperesthesia of the intestinal [illegible] the morbid symptoms vary from slight pain [illegible] to simple nausea or to uncontrollable [illegible] slow, light, progressive movements [illegible] of the fingers, he is able [illegible] liquid through this region [illegible] able both to the physician [illegible] or three minutes of [illegible] the vomiting to [illegible] be repeated as [illegible] This procedure [illegible] [illegible]

[illegible] removed during the [illegible] blood-stained mucus [illegible] fluid [illegible] in these tubes [illegible] menstrual period the contents were either [illegible] mucus from the rupture of epithe- [illegible] The [illegible] menstrual secretion is a viscid, purple [illegible] of mucus and venous blood, and [illegible] microscope, red blood corpuscles and a [illegible] leucocytes with some ephithelial cells in [illegible] of mucoid degeneration. The tubal mucosa [illegible] the fringe-like processes of membrane [illegible] rugæ or villi are swollen and thickened in [illegible] and are infiltrated with leucocytes which [illegible] in from the muscular and submucous [illegible] the villi, and between and among the ciliated epi- thelial cells. The epithelium itself is not shed or absent to any extent, but many cells show signs of mucoid degenera- tion. This is not so in the inter-menstrual period. This [illegible] seems to begin in the tubes before it does in the [illegible] also to cease earlier. It is not a fluid regurgitat- ed from the uterus because it appears earlier or as early as in the uterus; there are definite changes in the Fallopian mucous membrane; post-mortem examination shows the fluid in both uterus and tubes; experiments on lower ani- mals show no regurgitation, and regurgitation does not occur in women even in uterine distention from imperforate hymen. This blood may not be found in hydrosalpinx because of the sodium chloride in solution which breaks up the corpuscles and liberates the hæmoglobin, or possibly because the early pressure stops the secretion in diseased tubes. The occurrence of tubal menstruation may account for some tubal pregnancies or much dysmenorrhœa or tubal colic or for some cases of recurring local pelvic peritonitis and some cases of hæmato-salpinx where nó tubal pregnancy can be found.—*Brit. Med. Jour.*

Connection Between the Thyroid Gland and Puberty.

E. H[illegible], ascribes a preponderant role to the thyroid gland in both physical and intellectual development, and also a [illegible] upon the morphologic formation of the geni- tal [illegible] both sexes. It has long been noted that the thyroid gland develops parallel to the development of the [illegible] he is convinced that the sexual development [illegible] thyroid hypertrophy and increased thyroid [illegible] growth or infantilism is therefore due [illegible] development and activity of the thyroid gland, [illegible] myxedema is the extreme degree of thyroid [illegible] "[illegible]" is principally characterised by [illegible] and absence of puberty, as in cretins. The [illegible] depends upon the amount of dysthyroid- [illegible], rhachitism, chondrofetal dystrophia, [illegible] infantilism. The dysthyroid etiologic [illegible] is proved: 1, by the existence in the [illegible] 2, by dysthy- [illegible] 3, by the thera- [illegible] of thyroid product on [illegible] also pro- [illegible] work and [illegible] and [illegible]

[illegible] a solution [illegible] (2) the [illegible] the [illegible] which is (3) of vascular origin, (4) a [illegible] mary lesion, which is often absent, [illegible] secondary lesions are absent. [illegible] retarded lymphatic circulation [illegible] coitus, extravasation of lymph and [illegible] carry the syphilis microbes with [illegible] the mucous membranes, where [illegible] perties, they are transformed into [illegible] whose severity depends inversely [illegible] proportional to the strength of the [illegible] immunity is usually short lived, but may [illegible] by a process of auto-inoculation whose [illegible] confined to the skin. Tertiary syphilis [illegible] which differs from the toxin of early syphilis by [illegible] necrotic power and causing affections of internal [illegible] Though he suggests that phagocytosis may be produced [illegible] combining empiric with serum treatment, [illegible] serum obtained from syphilitics can [illegible] (1) there is too much tissue to render [illegible] the attacks of a (2) powerful though [illegible] microbe capable (3) of resisting the phagocytes and (4) [illegible] transmission by sexual cells from one generation to another, to (5) combine great toxic powers with limited extension of its zones of infection to avoid (6) exhausting its nourish- ment and (7) general invasions of the organism to which it might succumb. Then also the toxin (8) exercises its [illegible] action at long intervals to (9) eventually conquer the resist- ance which is established in the earlier stages [illegible] and (10) inoculation with tertiary serum is [illegible] tion, owing to the necrotic power of its toxin.—*[illegible] Med.*

Insects and the Transmission of Contagious Diseases.

P. R. JOLY in a monograph on this subject quotes instances of malignant pustule, Egyptian [illegible] and Delhi boil conveyed by flies. He has also [illegible] as the result of careful observations that the legs of flies may be covered by staphylococci and many other forms of bacteria. Tubercle is particularly liable to be disseminat- ed by flies; thus they come in contact with sputa and other means whereby tubercle bacilli discharged from the body of the patient becomes ingested. The insects then alight on food and deposit the tubercle bacilli, and thus easily con- taminate milk, meat, and other substances. The author quotes YERSIN as having noticed that the bodies of dead flies collected in his laboratory often contained numbers of the plague bacillus. The influence of various insects, more parti- cularly mosquitos, in carrying the filaria sanguinis is well known. The mosquito has also been suspected as the agent in the conveyance of malaria, and the writer suggests that the "sleeping sickness" is due to infection [illegible] in- sects. Ordinary inflammatory conditions may be produced by the common flea and bug, though the writer has been un- able to find that the latter insect carries [illegible] infec- tion, as is stated by some observers. The writer goes on to show the importance of warding off [illegible] far as possible, especially in cases of the diseases mentioned. He suggests a solution of [illegible] as of considerable use for this purpose, and particularly good in cases of [illegible]—*[illegible] Med. [illegible]*

[illegible] Ways in [illegible] Pathogenic.

[illegible] DELATTRE, [illegible] the author, [illegible] on [illegible] of milk for the purpose of determining [illegible] of tuberculous infection, [illegible] produces considerable [illegible] changes which occur after it has left the [illegible] under certain conditions [illegible].

Some of [illegible] obtained from deceased cows. [illegible] drawn into sterilized vessels and taken [illegible] to the laboratory. These samples he designates as unmixed milks. The other samples were taken from the [illegible] at the railway stations and placed in sterilized [illegible]. These he designates as the mixed milks. The specimens were collected in both the summer and winter months. Some were preserved longer than others, dependent upon the distance they came. He found that as a [illegible] the comparison of the milk of markedly diseased cows with that of the ordinary mixed milk, that the former is [illegible] less often capable of producing irritation than is the ordinary mixed milk supplied for consumption. In order to obtain a correct idea of the relative noxiousness of the mixed and unmixed milks, the tuberculous milks were excluded from 119 samples above referred to. This left 42 samples of non-tuberculous unmixed milks. A comparison of their pathogenic properties showed that 40. 8 per cent. of the mixed milks proved to be non-irritating, 40.8 were locally irritating, and 19.2 per cent. were highly virulent. Of the unmixed milks 60·5 per cent. were irritating, [illegible] per cent. locally irritating, and none of them highly virulent. A study of these same samples in order to determine the influence of time and temperature showed that the longer the time and the higher the temperature at which the milk was kept greatly increased the pathogenic properties of the specimens. The author concludes that infection of the milk outside of the udder and the conditions under which it is kept are the most important factors causing it to have irritating properties. He has found a close resemblance between the infection induced in guinea pigs from inoculations of milk which had given rise to outbreaks of epidemic diarrhœa, and that produced in guinea pigs by the injection of some samples of milk secured in the market. From this he infers that milk must be one of the most potent factors in the summer diarrhœa of children. This view is confirmed by the fact that he has been able to isolate a bacillus from all the cases of fatal septicemia due to milk injections the same as that obtained twice from milk giving rise to intense diarrhœa in children and adults. This is the only microbe which he found constantly present, and it retains its virulent properties through several cultivations outside the body. It closely resembles the bacillus coli communis in its pathogenic action. Its differences are quite within the limits of the ordinary variations of the b. c. c., so much so, that he has as yet, been unable to positively affirm that it is not this microbe.—*Inter. Med. Mag.*

Proximity of Trees to Dwelling-houses.

The proximity of trees and shrubs to dwelling-houses is not generally considered in the light of a health problem, but the fact that it is to be so considered is stated by Dr. OWEN COLEMAN, Medical Officer of Health, [illegible], it may be mentioned in a popular London suburb, where trees and [illegible] large forest trees [illegible] scattered about the district, [illegible] the perfect jungle that so [illegible] their front and back gardens, [illegible] that are so prejudicial. They [illegible] houses, keep the ground damp and [illegible] proper access of fresh and wholesome air [illegible] of the houses. During the night, [illegible] tained air naturally rises, and [illegible] the upper part of the house, its place is supplied by air coming in at the basement or ground floor, and if this [illegible] be filtered through bushes and undergrowth mixed with the exhalations from damp soil charged with decaying organic matter, it is small wonder that some households find themselves specially liable to sore-throats or indifferent health. These not infrequently are never advised as to the possible cause, but incontinently refer it to the neighbourhood, as a whole, and either go on suffering or pack up and leave the place. The big trees (due regard of course being had to their soundness) have an important part in keeping up the salubrity and equable climate that is peculiar to that part of the Thames Valley. They serve as wind screens, and act the same part as a breakwater does in subduing the violence of the waves. Remove them, to any large extent, and undoubtedly, as a consequence of becoming more wind swept, the temperature will be sensibly lower in winter, and the character of the whole of the district altered.—*Treatment.*

Accountability of the Physician.

THE law does not require of a physician or surgeon absolute accuracy, either in his practice or his judgment. The law does not hold physicians and surgeons to the standard of infallibility, nor does it require of them the utmost degree of care or skill of which the human mind is capable, but that, while in the practice of their vocation, they shall exercise that degree of knowledge and skill ordinarily possessed by members of their profession. This is the declaration made by the supreme court of Nebraska, in the case of VAN SKIKE vs. POTTER, December, 1897, which was an action brought to recover damages from Drs. POTTER and REYNOLDS for alleged negligent treatment of a kneecap fracture. The trial resulted in a verdict and judgment in favor of the doctors, which the supreme court affirms. The evidence, the supreme court holds, sustained the finding of the jury that the defendants did not contract with the plaintiff to effect for him a permanent cure, and did not contract to visit and treat him until he was cured. As to whether they had pursued the proper method in setting his kneecap, by wiring the fractured portions together, the supreme court says: "As is usual, the experts for the plaintiff agreed with his contention, and the experts on behalf of the defendants agreed with their contention"; and it decides that they were not guilty of negligence in the treatment given the plaintiff, including the leaving the point of a drill in the bone, when broken, while drilling a hole in one of the pieces of the kneecap, [illegible] of the plaintiff's leg. Upon the issue made by the pleadings as to whether the defendants agreed to visit and treat the plaintiff until he recovered, the court holds that they were properly permitted to testify that [illegible] the date of their last visit to him they informed him [illegible] unless they should be requested [illegible]. It [illegible] in such a case [illegible] authority on [illegible] dependent evidence [illegible]

[illegible] several [illegible] were in the [illegible] as good results as in [illegible] Loeffler's bacillus alone, and so [illegible] the facts of the great variance of the [illegible] diphtheria toxins and the symbiotic theory of [illegible] nothing specific in the toxins of specific [illegible] PROTZAPPE complains that such endless con[illegible] in the study of diphtheria [illegible] statistics are so contradictory and perfectly [illegible] in helping the physician to form a positive opinion of the serum, that he has to fall back on clinical [illegible], and the fact that the serum does act and succeed [illegible] must be enough for him, while its failure in [illegible] is no reason for doubting its use. Reviewing the question he shows that statistics *prove* that the serum treatment has (1) increased, (2) decreased, (3) almost suppressed and (4) *not at all* affected diphtheria mortality in several parts of Europe, while in America the declared cases of diphtheria have (5) increased enormously, and (6) though the relative mortality calculated on the percentage of the declared cases, has been lessened by the serum treatment, still (7) the absolute mortality calculated on the total population is as high as in the worst years since 1882. It becomes more and more difficult to adapt to one's clinical knowledge the new facts put forth by bacteriology that some diseases considered absolutely specific, are not so. Thus GOUGUENHEIM says that every acute case of sore throat should be examined bacteriologically for fear of missing diphtheria which he thinks is much more common in adults than is usually supposed.

Warm and Cold Baths in various Diseases.

EICHBERG has recently treated pneumonia patients with warm baths, at first only when the patient's temperature passed 103°F. but latterly every three hours. The delirium and nervous symptoms are said to be improved, and sleep obtained. The baths lasted ten minutes, and were given at 90 to 110°F. according to circumstances. Renaut has advised daily warm baths for children with acute bronchitis or broncho-pneumonia. The baths are given at 100·4° F. for about seven minutes, when the child's temperature reaches 102·2°, a little water at the temperature of the room being made to trickle over the child's head. The relief of nervous symptoms by cold baths and cold packing in cases of infectious diseases is much better known. LETTULE has obtained good results in delirium tremens from a cold bath of 65° F., with affusion to the head at the same temperature. In one case, although excitement and cyanosis were increased at first, the patient appear calmed within six minutes, and slept after the bath. One should expect that the careful employment of tepid or cold hydrotherapeutic applications would [illegible] be of use for the high fever and [illegible] cerebral symptoms which occasionally supervene in children after comparatively slight burns. Dr. [illegible] the employment of baths for phthisical patients at the Sanatorium of Falkenstein in the [illegible] tubercle bacilli [illegible] baths for cleansing [illegible] the patients [illegible] and those [illegible] with a dry [illegible] towel [illegible] thirty [illegible]

[illegible] good rubbing [illegible] months, in [illegible] treatment [illegible]

[illegible] of Quinine and Warburg's Tincture in Malaria.

DR. [illegible], says (1) As a [illegible] will not do for those who are compelled [illegible] in a severe malarial climate [illegible] vasomotor poison. (2) Quinine acts [illegible] on all malarial fevers characterized by [illegible] well-marked remissions, but fails in the [illegible] —those of typhoid-like symptoms, [illegible] without temperature, and the cachexias [illegible] malaria. (3) It is thus proved that quinine is a poison to the plasmodium itself, but is useless against the toxin manufactured by it. (4) Warburg's tincture in the last conditions has an action not yet understood on the toxin (or the eliminative system), by which the system is put in condition to benefit by quinine. (5) Quinine should never be used in hemoglobinuria or given subsequently to one who has suffered it, as it is liable to bring about a recurrence of the condition. Only those living in regions of severe malarial diseases can become competent to settle these questions. [illegible] —*Med. Age.*

Examination of Chloroform.

AUGUSTE BEHAL and MAURICE FRANÇOIS, say,—Pure chloroform, as is well known, decomposes under the combined influence of air and sunlight, evolving carbonyl chloride. The presence of a little alcohol prevents this. The authors have examined a number of samples of chloroform and find as impurities only alcohol and water. The alcohol may be estimated by shaking with strong sulphuric acid, thus forming ethylhydrogen sulphate, which is separated off, distilled with water, and the alcohol estimated in the distillate by oxidation to acetic acid.—*Treatment.*

Suppositories for Bleeding Hemorrhoids.

℞ Ferri subsulph. ... ... gr. iii.
Plumbi acetat. ... ... gr. i.
Mass. hydrarg. ... ... gr. ss.
Ol. theobrom. ... ... q. s.

M. Ft. suppos. No. 1. Sig. Insert one suppository morning and evening.

Catarrhal Jaundice.

℞ Ammon. iodi. ... ... ʒ i.
Liq. potass. arsenit. ... ... ʒ ss.
Tinct. calumbae ... ... ℥ ss.
Aq. dest. ... ... ℥ iii.

M. Sig. One teaspoonful three times daily before meals. —*Med. News.*

Constipation with Acne.

Is in many cases admirably overcome by the "Mistura ferri acida" of the Hospital pharmacopoeia, composed approximately as follows:—

Magnesium sulfate ... ... 1 ounce.
Dry ferrous sulfate ... 30 grains.
Diluted sulfuric acid ... 1 fluidounce.
Infusion of quassia... ... 6 fluidounces.

Mix.

Take one tablespoonful in a tumbler of water before breakfast.—[illegible]

[illegible]

[illegible] Correspondence.

[illegible] HEAD [illegible] INJUS[illegible]

[illegible] Burma." [illegible] when I con[illegible] of Station Hos[illegible] very forcibly [illegible] perpetrated by [illegible] Principal Medical Offi[illegible] of such a grave nature [illegible] Officers and Hospital [illegible]ly at the mercy of [illegible] caprice. Though none of [illegible] strictures, yet I confidently [illegible] opinion is held of the [illegible] It was with some interest [illegible] complaint on the same subject [illegible] of the Bombay Command [illegible] instant. No effort should be [illegible] emphatic exposure to this evil, [illegible] such prominence as to thoroughly [illegible] all ranks. When the authority [illegible] of the medical staff of their respective dis[illegible] vested in Principal Medical Officers, without [illegible] in special matters) to Head Quarters, the [illegible] generally accepted as an advance in the [illegible] nobody anticipated the evils that [illegible] from the system. We expected not unrea[illegible] sure that, being in touch with the adminis[illegible] of a district, or rather that officer being [illegible] touch with his executive staff, evils that [illegible]avoidable, when affairs of every kind were [illegible] Quarters, would cease to exist. As far [illegible] ranks are concerned, there is nothing [illegible] but it soon became evident, that the fate of the [illegible] workers lapsed more surely every day [illegible] of "my manager," till at the present [illegible] man knows and feels the humiliation that [illegible] Surgeon and Hospital Assistant class of the [illegible] Department is administered not by Offi[illegible] Babus. When you reflect on what an [illegible] a medical administrative charge [illegible] little trouble would be imposed on an officer if he [illegible] thoroughly master of every detail of his charge, one cannot but be surprised that the evils we complain of now could ever have come into existence. Corruption [illegible] but too prevalent everywhere in the State where a certain class of Indian or Native offi[illegible]cial once gets a footing, but that this curse should have attained such proportions in a [illegible] department like the Medical and that it should be permitted to affect us mili[illegible]tary men, invites the inference that the officers entrusted [illegible] our welfare have not been mindful of the great [illegible] in them. There is absolutely no excuse for an Administrative Medical Officer [illegible] a single abuse to be [illegible] in his name [illegible] with a sense of humiliation that it is ever the [illegible] and rank of a British Officer that the [illegible] are being every day [illegible]

[illegible] M. D. [illegible]

"It [illegible] instance of injustice and [illegible] how after twenty years [illegible] application for urgent leave [illegible] ted by his immediate [illegible] stances that prompted [illegible] during his absence from [illegible] died leaving a houseful of [illegible] The exigencies of the service [illegible] withstanding local arrangements [illegible] In contrast to this a second [illegible] years service in Burma, he "worked [illegible] months' privilege leave, while a [illegible] spent more than that time on incessant [illegible] and plague camps found no favor with [illegible] third man has had the experience of his [illegible] being systematically sent back for one [illegible] or another bringing "dust on his head and [illegible] from his superior, till a certain interview [illegible] Manager's domicile was followed by happy [illegible] With what cool confidence I have witnessed [illegible] teeth of grinning improbabilities calculate the time when a certain appointment would be his; and it was so. The "jobs" executed by our friend Mr. Manager Babu present so many curious aspects of boldness, [illegible] cunning, diplomatic talent, scurvy [illegible] and [illegible]ent circumspection and forethought, that I have [illegible] prompted to make a collection of the precious lot and work up a literary *chef d'œuvre* for the delectation of the public at some future date.

You would like to have proofs Sir? Well that is just what you cannot obtain, at least proofs of that [illegible] that would secure a legal conviction. But all this hanky panky disgraceful business is an open secret and known *to the officers of the Service, Executive and Administrative.* Call for confidential communications from Assistant Sur[illegible]geons and Hospital Assistants and the "internal evidence" contained in them will carry conviction to any unpreju[illegible]diced mind.

What is the outcome of this state of [illegible] we are concerned? Simply this: that [illegible] military men and servants of the State [illegible] privileges, as sanctioned by existing [illegible] or to be obtained only by manipulating [illegible] our status insignificant as it is [illegible] and their Managers, and our dignity [illegible] upon as so much dirt. "Money [illegible] the Gentile Apostle [illegible] ordinate Medical Department [illegible] sturdy [illegible] and manly [illegible]

It is easier to [illegible]

[illegible]

... upon in operat-...

Yours &c., [illegible] Assistant Surgeon.

[illegible] British Forces, we ... British Forces ... this [illegible] state of things.—

—:0:—

MEDICAL ADVERTISING IN INDIA. SHOCKING EXPOSURES.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Here is a literal translation of another "notice" which has been freely circulated among the well-to-do classes of Lucknow. This time you will see that it is an Assistant Surgeon who is in Government service who has been advertised. I hope you will very kindly publish it in the "*Record*" for the edification of not only your readers, but also of the Inspector-General of Civil Hospitals N.-W. P. and Oudh, and the *local* Government. Any comment from me would be useless. The notice speaks for itself. Here it is :—

"Chest Diseases"

"Attention to the treatment of the Diseases of Chest."

"Whereas the diagnosis and treatment of the principal organs of the body is a delicate affair ; especially that of the organs of chest, which if neglected even slightly might develop into serious and quite incurable complaints ; it is therefore the desire of Dr. KHAN BAHADUR MAHOMED ABDUR RAHIM L.M.S., Assistant Surgeon in charge King's Hospital, Lucknow, to devote his whole attention towards these complaints and they will receive his utmost attention. It is for this reason that one day in the week, viz Sunday, from 7 to 9, has been set apart for the examination, diagnosis and treatment of the diseases of the organs of chest. On these occasions after correct diagnosis, satisfactory arrangement would be made for the ... of medicine."

"It is fervently hoped that as he has become famous for the treatment of Eye diseases and various other ... throughout the whole world, he will gain, if it please God, such fame in the treatment of the aforesaid diseases that it would astonish the world."

"... those who wish to have their chest com... may come to the King's *Hospital*, Victoria ..."

... Indian Medical Association are also ... in stopping ... men from advertis... ... after the mischief ... prompt action and ... would ... should be ... the ... [illegible]

[illegible]

... your columns ... of all the professions in ... and disgraced by some of the ... and bring the offenders to ... in the case of Government ... versities in the case of men ... that the offenders may be properly ... may be. The Council should ... that my appeal will not be in vain.

Yours &c., [illegible]

LUCKNOW, *4th October 1898.*

(Advertising in India is being carried on to ... most degrading depths. Men with ... ware how they drag the reputations of ... surely a Nemesis will overtake them. ... contemplate the possession of penal powers ... graduates hesitating to ... conduct which some of them are now guilty of ...—ED. I.M.R.)

—:0:—

MEDICAL OFFICERS OF DISPENSARIES AND THEIR RELATIONS WITH LOCAL OFFICERS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—In the interest of all the parties concerned in the administration and proper working of the ... Government Dispensaries of the Bombay Presidency, it is now high time that Medical Officers holding charge of dispensaries should be made quite independent of Local Officers, if you want them to work with ... forwardness, independence and according to the dictates of their own conscience. Plague is spreading ... Talukas of Districts in the Bombay Presidency, and the work is so very dangerous and ... unless Medical Officers at the Dispensaries are freed from Local Control of Revenue and Police Officers and ... pensary Committees, it is most difficult for them to work as actively and conscientiously as they would otherwise do.

For the present the case is that every dispensary has its committee composed of a Mamlatdar or a Mahalkari who is the chairman, and two members who are ... well-to-do gentleman of the town or Government ... such as a chief constable and a sub-registrar or ... karkoon and a Talati.

Such a committee as described above, visit the dispensary every month and write remarks ... of the dispensary that things are kept ... good order and that there is no complaint, &c.

... a medical officer, who is a member on the Municipal Board along with ... gentlemen ... who form the ... committee ... to be their ... by them as such.

[illegible]

[redacted]

[redacted] Plague [redacted] Officer to be his [redacted]

As the Medical Officer in charge of a Dispensary is [redacted] communication direct to the [redacted] of the District, he has [redacted] hands, even though necessary [redacted] plague and sanitary important [redacted] carried out, or attended to by the Mamlatdar or the Mukhtiarkar of the Taluka, who is generally [redacted] of the Dispensary Committee.

The Medical Officer is always called upon by Local Officers such as Mamlatdars or Mahalkaries and chief constables to give his opinion in medical and sanitary matters and in criminal and assault cases, and if he happens to give one which is distasteful or against the wishes of the officers holding his opinion, possibly incurs their displeasure and is always in the fear of being injured by them in some way or other, as the Revenue and Police Officers are in the possession of magisterial and judicial powers.

To avoid such Medical Officers many a time may possibly be obliged to say or do things against their own conscience simply to please the Local Revenue and Police Officers, who are appointed to supervise the work of Dispensaries as members of the Dispensary Committees.

It is very essential therefore that these three officers namely Medical, Revenue and Police Officers should be made quite independent of one another, so as to perform their legitimate duties without entertaining any fear, inconvenience or an air of superiority towards one another.

If any controversy arises among them, the matter should be individually brought to the notice of the District Revenue Officers such as the Collector and the Deputy Collector or the Superintendent of the Police or the Surgeon-General with the Government of Bombay, whichever of the above officers may be considered the proper authority for reference.

Members of a Dispensary Committee visit the dispensary every month and write in the Remark Book of the dispensary that things are kept clean and in good order, no complaint lies, as if the Medical Officer himself does not know much about cleanliness and keeping things in order. This is very ridiculous on the face of it.

It is quite sufficient in my humble opinion that the District officers such as the Collectors and their Deputies and Civil Surgeons and Police Superintendents visit dispensaries once every year, while they are on their annual tours.

As regards the management of the Dispensary Fund and keeping of accounts, I may here suggest that the Dispensary funds can either be handed over to the Treasury officers as before, or the accounts of the funds may be entrusted to the Municipal or Local bodies.

[redacted] Government of Bombay; [redacted] will kindly take up the subject [redacted] in moving the Government of [redacted]

Yours [redacted]

THE UNEQUAL EMOLUMENTS OF THE MEDICAL ASSISTANTS OF HIS HIGHNESS THE NIZAM'S MEDICAL DEPARTMENT.

To the Editor, "Indian Medical Review."

Sir,—Please permit me to trench on your valuable columns for a short space to ventilate the grievance of a most meritorious body of young men, who have cast their future lot in life, as Hospital Assistants in the Residency Medical School of Hyderabad, Deccan. If it be true that Dr. Lawrie as Director of His Highness the Nizam's Medical Department takes particular pride in the perfection of the professional equipment demanded of his disciples, then it would be easy enough for him to see how equitable and just the ensuing complaint is of theirs must. Once the justice and fairness of the plaint is admitted, as admitted it must be by all fair minded people, there will be no impediment whatsoever to the requisite remedy being speedily applied to their grievance. In common honesty, however, it must be mentioned that the case has not been officially brought to the notice of Dr. Lawrie.

As I take an interest in the ventilation of local affairs affecting any portion of the public, I have been desired by a friend to make this representation through the medium of your esteemed Journal for obvious reasons.

The complaint briefly stated is that the candidates qualifying themselves as Hospital Assistants are expected to go through the *same curriculum* of studies as that set apart for the Hakims, with a very slight exception, namely, that whilst the latter have five years, the former put in only a four years' course. As there is only this paltry difference in their training, why should there be such a difference in their salaries. The Hakim draws as monthly pay Rs. 150 whilst the poor assistant, gets the magnificent sum of Rs. 30 only, just one-fifth of the pay allotted to his more fortunate compeer. True that the assistant in question is given Rs. 75 per mensem to start with if he intends to enter military service, but then he thereby renounces all claims for future promotion. Of course the Hakim again is promoted to higher grades that carry increased emoluments, according to his merits, but the said Assistant must continue to plod on peacefully and live to reach his ultimate goal that is, Rs. 150 a month by periodical increments. If the Hakim is given an income of Rs. 150 a month by reason of his five years course, surely the other who puts in four-fifths of that period in the very thickest [redacted] of [redacted] greater one half of that amount (Rs. 75) as [redacted] salary, leaving out of the [redacted] that [redacted] is to be [redacted] of good service. [redacted]

[illegible] in the discharge of his duties, [illegible]

As this school came into being at the Residency before Dr. Lawrie made his *debut* here, it [illegible] be supposed that he individually had any hand in fixing the remuneration of Hakims and Assistants thus unequally, but now that he is *au courant* with every detail connected with his *chelas'* expectation in the race for life, he would be doing an act of justice by coming to their rescue and endeavouring to remedy the evil complained of. He would be performing an act of grace that would leave a lasting impression upon the memory of the sensitive Aryan. At any rate, the past and present students, who graduated out of this school under his personal supervision, would feel for ever beholden to him, should something be done to remove this burden of inequality.

Yours &c., Dekani.

—:o:—

"MILITARY RINGING" TITLES FOR ASSISTANT SURGEONS.

To the Editor, "Indian Medical Record."

Sir,—Perhaps enough has been already written protesting against the inane and ludicrous suggestion of your correspondent "P" anent the above, but as he returns to the charge with re-doubled vigour in the last *Record* to hand, with an extra embellishment of "smiles" and rotten argumentative powers, it is high time he was pulled up short. One would have thought that the very sensible and extremely moderate retort of "An Old Assistant Surgeon" was enough to subdue "P" into a more sensible way of thinking, but evidently not.

His statement that the suggestion he put forward "had the approval of *several* of his colleagues" must I am afraid be taken *cum grano salis*, while personally speaking from a knowledge of the members of the service generally, it is a statement that I emphatically refuse to believe, and I challenge your correspondent to produce three men from the sum total of all the Presidencies who will come forward in the *Record* agreeing with his "suggestion."

One can quite understand the long and severely fought battle of the Commissioned Officers of the Medical Service for purely military titles which they have at last won, but they placed their banner of offense more on grounds of gaining social equality with their brother combatants which they feared was wanting in a quasi title, but "P" in his enthusiasm for military titles and military "ring" would have us mount a dung hill to be buried in it completely when we get to the top of it, while he entirely fails to produce any advantage socially, morally or professionally (?) in support of his contention I mean "suggestion." Oh yes! the "military ring" forsooth.

It seems a great pity for "P" that he wasted his [illegible] in allying himself to any branch of the medical profession for the military ring that he finds [illegible] would have rung for him to his heart's content [illegible] the "jee" sayal "rooti distributing" [illegible] etc. etc. I [illegible] of such calibre as "P" must be [illegible] as my friend "Garm" [illegible] fantastic [illegible]

[illegible]

[illegible]

Multan, [illegible] October 1898.

(We trust our correspondent knows that officers [illegible] the principle of "audi alteram partem."—Ed. I.M.R.)

—:o:—

BUBONIC PLAGUE CASES AT ANAND DISINFECTION CAMP: SIX MONTHS' WORK.

To the Editor, "Indian Medical Record."

Sir,—Of 58004, or a daily average of [illegible], persons who were detained for observation at [illegible] between 24th November 1897 and 17th May 1898, no fewer than 641 received medical aid while 69 Hindus and [illegible] Mahomedans (*i.e.* Adults—58 males and 18 females and 7 children) were sent to the Plague Hospital, and of these 54 had plague of the bubonic type, 14 pneumonic, 3 [illegible], 1 septic and 4 of the bubonic and pneumonic variety combined, and 26 of these recovered while the remainder died.

4 of these patients were over 50, 5 between 41 and 50, 9 between 31 and 40, 27 between 21 and 30, 26 between 11 and 20, and 7 under 10 years of age.

Though 1 case went as far as the eleventh day, 2 to the eighth, 7 to the fifth and 17 to the third day before the early signs were seen, still in 32 cases the plague manifested itself within 24 hours after infection, and the most prominent symptoms were;—utter lassitude, anxious face, moist saliva, white tongue, suffused conjunctiva, feeble pulse, monosyllabic 'drunkard's speech,' and later a very tender and painful bubo accompanied by delirium in 50 per cent. of the cases.

In the pneumonic variety which was the most fatal (10 deaths in 14 cases) the sputum consisted of pale red blood and the cough which was of a hacking character, was frequently followed by dyspnoea rarely by orthopnoea, while the chest felt sore with lancinating pains.

The bubonic variety which was the most common and the least fatal accounted for 59 cases in whom the buboes appeared as under:—

Region of Bubo		R*	L.	B.	T.
Inguinal	... ...	15	13	1	29
Femoral	... ...	7	12	3	22
Both Combined	... ...	1	...	...	1
Axillary	... ...	3	...	...	3
Submaxillary	... ...	1	2	...	3
Parotid	... ...	1	...	...	1
Total	...	28	27	4	59

The treatment which gave most satisfactory results was the exhibition daily of Liq. Hydrarg Perchlor (corrosive sublimate solution) six drachms divided over 24 hours: Under this the temperature markedly remitted and the delirium lessened, while the tongue became cleaner, there was a decided general improvement. Remarkable though the results given by this drug, we could not claim a definitely specific action for it, since the perchloride was tried in only 70 cases of plague. The buboes did nicely under repeatedly applied sinapisms, and it is satisfactory to note that so far no cases of plague occured in Anand itself, even though 76 cases were detained from through passengers.

Yours &c., Mahadeo Prasada, C.M.S.

* R.—Right side, L.—Left side, B.—both sides, T.—total.

[illegible] CIVIL [illegible]

[illegible] "Indian [illegible]

[illegible] and [illegible] which [illegible] partially [illegible] Gov- [illegible] but as [illegible] Surgeons [illegible] General, Indian [illegible] conferred on them. [illegible] Assistant Surgeons to the senior [illegible] should be by seniority and [illegible] number of years and not [illegible] of the [illegible] strength in each pro- [illegible] of pay of Rs. 300 a month has [illegible] condition that the Municipalities or [illegible] pay the [illegible], where Assistant [illegible] to [illegible] or local Fund hos- [illegible] words, when municipalities cannot [illegible], the Assistant Surgeons will receive no [illegible]. Is not the Government resolution then a [illegible]?

[illegible] of Assistant Surgeons to the civil [illegible] been sanctioned on paper only, [illegible] as you remarked in a late issue of [illegible] probably treated as a dead letter. [illegible] Mr. Harvey would kindly insist on the [illegible] at once carried into effect in its en- [illegible]

[illegible] of Assistant Surgeons to Rs. 300 grade [illegible] selection, but we hope the Inspector-General [illegible] will carefully select deserving officers [illegible] long good service and who have no blot [illegible] official career, and thereby prevent job- [illegible]. The Assistant Surgeons of tried [illegible] should be appointed to Civil Sur- [illegible]

[illegible] "Hope Deferred maketh the Heart sick"

—:0:—

[illegible] AND CIVIL JOBS.

To [illegible] Editor, "Indian Medical Record."

[illegible] Your correspondent "Fair Play" in your last issue [illegible] growing grievance, but I rather think [illegible] economical proclivities of the Gov- [illegible] an unfailing device—if anything, [illegible] the force of his claim for redress. Though [illegible] cannot be advanced as a claim for preference [illegible], yet all other considerations being [illegible], it has always been held throughout the Army and [illegible] to constitute a right to such prefer- [illegible] for long and meritorious service de- [illegible] and encouragement, as an incentive [illegible] behaviour. Abolish it, and what can [illegible] in his subsequent career from [illegible] and discontented senior, or even his temporarily more fortunate junior? Indeed, if the [illegible] a little, he would himself see that this policy [illegible] recoil upon himself

Some [illegible] officers hold rather loose [illegible] question, and being unconcerned with [illegible] consider they are encouraging young blood, [illegible] impartially among all subordinates [illegible] under their orders. They forget that [illegible] the loadstar of Hope, and not the pressing wants or [illegible] of the immediate present that makes for good, and that it is this hope of a [illegible] claim in the [illegible] has borne them up through the weary toil and [illegible] of a long and arduous career.

I [illegible] and at length on the subject, for, though I [illegible] officially complained [illegible] worse than [illegible] with those who [illegible] above and are [illegible] I have more than [illegible]

[illegible]

[illegible] measures [illegible] shortsighted policy and [illegible] ubiquitous and [illegible]

Yours &c., An [illegible]

—:0:—

MEDICAL ADVERTISING [illegible]

To the Editor, "Indian [illegible]"

Sir,—The annexed advertisement is [illegible] broadcast over the streets of Calcutta [illegible] fly-page as large as a page of the Record [illegible]

Notice.

"We beg to inform the public that owing [illegible] able death of Dr. Jaggu Bandhu Bose, [illegible] life-long connection with this Dispensary [illegible] Medical Hall, No. 3-2, College Street) we [illegible] arrangements with the following Doctors, namely:—

1st.—Dr. P. N. Mookerjee, L.M.S., who had been [illegible] tising with the late Dr. J. B. Bose, for more than [illegible] years and acted as his general assistant both in [illegible] practice and Dispensary.

2nd.—Dr. N. B. Bose, M.B., brother to the late [illegible] and late House Surgeon, Chandney Hospital, who [illegible] as assistant to him in this Dispensary for ten years, and was brought up by him as Medical Practitioner. He is an Honorary Secretary to the Calcutta Medical School Hospital and Lecturer of Therapeutics and Assistant Secretary of the said Institute.

3rd.—Dr. H. N Ghose, L.M.S., late House-Surgeon, Ezra Hospital, who also acted as an assistant under the late doctor.

Dr. P. N. Mookerjee, L.M.S., attends the Dispensary from 6 to 7 p.m. Doctor N. B. Bose M.B., attends from $8\frac{1}{2}$ to $9\frac{1}{2}$ a.m., and 5 to 6 p.m. Doctor H. N. Ghose L.M.S., attends from $7\frac{1}{2}$ to $8\frac{1}{2}$ a.m.

The patients are very carefully attended to and the charge of Medicines is moderate.

The Union Medical Hall,
3-2 College Street.
Calcutta.
} T. M. BOSE & CO."

Unquestionably this sort of conduct on the part of several young Bengali practitioners is doing much to lower the repute and status of qualified medical men in this city and demands the notice of the University.

Yours &c., L. M. S. Calcutta,

Calcutta, *28th September 1898.*

—:0:—

TOBACCO ASH IN COBRA-[illegible]

To the Editor, "Indian Medical [illegible]"

Sir,—In your issue of the 16th September [illegible] 245, Mr. Tricumlal M[illegible] [illegible] experience regarding "Tobacco ash" as a [illegible] cobra-bites.

Will you or any of your [illegible] let me know through the [illegible] ther tobacco ash differs from [illegible] on rubbing the [illegible] emetic and in large [illegible] tion of the pupil, collapse [illegible] of the skin [illegible]

[illegible]

Yours &c., [illegible] L.T.M.S.

[illegible] October, 1898.

———:0:———

POOR HOSPITAL ASSISTANTS.

To the Editor, "Indian Medical Record,"

Sir,—[illegible] the greatest pleasure in having an opportunity [illegible] you and the Indian Medical Association [illegible] success which has attended your persistent [illegible] the prospects of Civil Assistant Surgeons. [illegible] one thing that remains for you to [illegible] the beggarly paid and miserable class of Hospital Assistants who are sacrificing their most valuable lives in the deadly pestilence that is now prevalent in a horrible type in the Bombay Presidency. This class has always to face all the dangers and its sufferings and miserable condition are very well known to you, so I will not trespass on your space by bringing all the details to your notice.

Of course I must admit that you have been trying your utmost and that an appeal has already been made for improvement in the prospects of both the classes, though the result is that the upper class is favoured and the poor Hospital Assistants' class is altogether neglected. I would most respectfully request you to be so good as to send in a reminder to the Government of India, to get at least some redress for our grievances. Hoping to be excused for the trouble and thanking you for the sympathetic disposition you have always shown towards the miserable class of Hospital Assistants.

Yours, &c., H. A.

Belgaum, 8th October, 1898.

(We can assure our Hospital Assistant friends that their case for redress will not be forgotten by the Government.—Ed. I. M. R.)

———:0:———

BAD TRAINING IN INDIAN MEDICAL SCHOOLS.

To the Editor, "Indian Medical Record."

Sir,—May I draw the attention of the Campbell and Dacca Medical Schools, through your esteemed journal, to what I consider several terrible deficiencies in connection with the class of Hospital Assistants and Vernacular Licentiates turned out every year.

I.—They do not know sufficient English to be able to [illegible] a medicine indent or keep their registers properly in the same language—which are most essential duties [illegible] to which they principally flock to [illegible].

II.—[illegible] to be absolutely devoid of the elements of [illegible] Practical Surgery and Midwifery—and [illegible] of antiseptic measures. Even a [illegible] is handled in an awkward [illegible].

III.—[illegible] experience, even on a respectable sala[illegible].

[illegible] and status do the letters [illegible]

[illegible] of skilled medical [illegible] viz Rs. 50 [illegible]

[illegible]

[illegible] journal [illegible]

[illegible] article [illegible] that [illegible] Surgeon [illegible] Calcutta [illegible] that [illegible] ravages would have been [illegible] this is marshalled the [illegible] cial and non-official." (The [illegible] constant cry of "Wolf! W[illegible] tedious, I would commend [illegible] Episode"—to the special [illegible] above paragraph, for in that [illegible] expressed the opinion of the Calcutta [illegible] everlasting gratitude. It is [illegible] whole body of expert opinion [illegible] admit that we have been [illegible] 'non-official opinion'—the only [illegible] interested opinion I trow—who [illegible] —a fact of which the writer in the [illegible] aware of, and who appears to [illegible] facts."

Yours &c., A Disbeliever in the Plague.

———:0:———

NON-OBSERVANCE OF REGULATIONS.

To the Editor, "Indian Medical Record."

Sir,—On looking over the Army list I find that [illegible] three presidencies the proportion of Senior [illegible] geons is not in keeping with the regulations [illegible]. May I ask why?

Reference:—I. A. R. Vol. VI, Medical 1896. Paragraph 253, which reads as follows:—

"The authorised establishment of Senior Assistant Surgeons will be in the proportion of 25 per cent. (12½ per cent. in each grade) on the total strength of Military Assistant Surgeons maintained for Military and Civil duties."

Yours &c., M. A. S.

Government Medical Gazette.

GOVERNMENT OF INDIA.

Majors to be Lieut. Cols. 30th Sept., 1898.

Bengal Estab.—Terence [illegible], Daniel Francis Barry, M.D., George Francis [illegible] Harris, John Anderson, M B, Charles James [illegible], Michael O'Dwyer, M.B.

Madras Estab.—Clement [illegible], M.D., Edulji [illegible] ji Damia, Herbert St. Clare Carruthers.

Bombay Estab.—Charles George Walton Lowdell, Harry Beecham Briggs, M.B., Walter Peter Carson, M.B.

Capt. to be Majors 30th Sept. 1898.

Bengal Estab.—Robert Joseph Macnamara, M.D., Herbert Wilson Pilgrim, George Brooke [illegible], M.B., Francis Wyville-Thomson, M.B., Edwin Harold [illegible], Charles Norman Bensley, Selby Harriot Henderson, M.B., David Wilson Scotland, M.B., Charles Robert Mortimer Green, James Henderson [illegible], Edward [illegible] Hare, Frank Cecil Clarkson, John [illegible] Jordan, M.B., Herbert Mackinlay Morris, Allan [illegible] Bunch, James Norwood, M.D., [illegible] William Hall, M.B.

Madras Estab.—[illegible] Henderson [illegible], Frederick George Maitland, [illegible] Purcell Doyle, D.S.O.

Bombay Estab.—[illegible] Robert [illegible], Thomas Edward Dyson, M.B.

[illegible] Lieut.-Col. W. R. Johnson, [illegible] rank of Surgn.-Col. will [illegible]

[illegible] Dec. [illegible] 1898.

[illegible] Bernard Nedel [illegible] 1898.

[illegible] James [illegible] and [illegible] the service from [illegible]

Lieut. E. L. [illegible] by the [illegible] of [illegible] 3rd Nov. 1898.

The services of [illegible] Col. [illegible] Wilson, D.S.O., I.M.S., (Bombay), [illegible] at the disposal of the Govt. of [illegible] on [illegible] duty.

BENGAL GOVERNMENT.

[illegible] Joseph O'Brien, M.D., Bengal Estab. Prof. [illegible] College, Calcutta, and *ex-officio* 1st Surgn. [illegible] Hosp. [illegible] from the service 19th Aug. 1898.

Capts. to be Majors. 30th Sept. 1898

[illegible] Wilson Pilgrim, Charles Robert Mortimer Green, [illegible] Cecil Clarkson, John Gregory Jordan, M.B.

Major A. B. D. [illegible], I.M.S., has been granted a further [illegible] for four months.

The services of Capt. [illegible] Stevens, M.D., F.R.C.S., I.M.S., (Bengal), are [illegible] permanently at the disposal of the Government of Bengal.

The services of Lieut. J. Chesterlis, R.E., are replaced at the disposal of the Govt. of India Home Dept.

[illegible] Hosp., Dum-Dum, to have [illegible] duties of that stn.

Asst. Surg. [illegible] Chunder Biswas was on special duty at [illegible] from 22nd to 25th June 1898.

PUNJAB GOVERNMENT.

Majors to be Lieut.-Cols. 30th Sept. 1898.

Bengal Estab.—Charles James Bamber, Malechi O'Dwyer, M.B.

Capts. to be Majors. 30th Sept. 1898.

[illegible] Joseph Macnamara, M.D., Herbert Mackinlay [illegible].

Hosp. Asst. Ramjas, three months' privilege leave, from 1st June 1898.

Hosp. Asst. Ramjas reported himself, Civil Surgn., Jullundur, for genl. duty, 1st Sept. 1898.

Hosp. Asst. Muhammed Hussain, Montgomery Central Jail Hosp., three months' privilege leave, 14th Sept. 1898.

Hosp. Asst. [illegible] Das, to Lalian Dispy., Jhang Dist. 29th Aug. 1898.

Hosp. Asst. [illegible] Shah, to Luddan Dispy, Mooltan District, 3rd Sept. 1898.

Hosp. Asst. Thamios Ram, genl. duty, Mooltan. 12th Sept. 1898.

Hosp. Asst. Harbans Singh, Jullundur, to Moga Dispy. Ferozepore Dist. 22nd Aug. 1898.

N.-W. P. AND OUDH GOVERNMENT.

Asst. Surgn. Nil Ratan Banarji, Sadar Dispy., Bara Banki, privilege leave for two months from 7th Oct. 1898.

Asst. Surgn. [illegible] Lal Deb, Meerut, to Sadar Dispy., Bara Banki.

Surgn. Lieut.-Col. J. McConaghey, Civil Surgn., Lucknow, to visiting medl. charge of Rae Bareli.

Asst. Surgn. Hari Gopal Chatterji, Sadar Dispy. Rae Bareli, to medl. charge of that dist.

Asst. Surgn. Prasanna Kumar Banarji Sadar Dispy., Azamgarh, to hold charge civil medl. duties of that dist. from 12th Sept. 1898.

CENTRAL PROVINCES GOVERNMENT.

Hony. Surgn.-Capt. William Marcus Mitchell, S. Asst. Surgn. I. S. M. Dept. (Bengal), is permitted to retire from the service.

Major to be Lieut.-Col. 30th Sept. 1898.

George Francis Angelo Harris.

Hosp. Asst. Ramkrishna Lal, to do [illegible] Civil Surgn. Nagpur.

Hosp. Asst. Vithal Moreshwar, Jail Hosp., [illegible], to Banda Branch Dispy., Saugor Dist.

Hosp. Asst. [illegible] Chand, to Jail Hosp., [illegible].

Hosp. Asst. Daud Ali, N.-W. P. Civil Medl. Estab., was employed on Famine duty Civil Dept., Mandla Dist., from 11th Oct. to 3rd Nov. 1897.

BURMA [illegible]

[illegible] from 18th [illegible] 1898.

Asst. Surgn. [illegible] 1898.

Hosp. Asst. [illegible] Hosp., Myingyan, [illegible] 1898.

Hosp. Asst. Ghulam Mustafa [illegible] Kutkai, Northern Shan States, [illegible] ed charge of the same, 24th June 1898.

ASSAM GOVERNMENT.

Hosp. Asst. Narendra N. Das, [illegible] Qual. Exam., 9th Sept. 1898.

Sick leave for three months is granted to Hosp. Asst. [illegible] Gyas Uddin, Bijni Dispy. Goalpara dist. from [illegible] 1898

Hosp. Asst. Narendra Nath Das, [illegible] Dispy. Goalpara dist. to Bijni Dispy., from 12th Sept. 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTH.

FINK.—On the 24th September, 1898, at the [illegible] the wife of Major G. H. Fink, I.M.S., of a daughter.

DEATH.

GILLESPIE—Oct. 6th, at Bombay, Anne Cecelia, the beloved wife of 1st Class Assistant Surgeon T. D. W. Gillespie, House Surgeon, J. J. Hospital, Bombay, aged 27 years and 2 months.

NOTICES TO CORRESPONDENTS.

Assistant Surgeon.—Regarding your complaint about the P. M. O's. Head Clerk which we noticed in our editorial comments in last issue and your present further contribution on this subject, we quite understand how dangerous it is for junior officers to publicly represent complaints against their superiors' clerks, but if you or any one else will forward us evidence of an authenticated and convincing character regarding the frauds and the taking of illegal gratifications by P. M. O.'s Head Clerks, we promise you an immunity from every shadow of unpleasantness, for we believe the P. M. O. Her Majesty's Forces and the Director-General of the Indian Medical Service will take action against these reptiles on such evidence and crush them to death. They certainly deserve condign punishment and we shall gladly do anything to see them get their just deserts.

Aspirant. (Assam).—Kindly quote in words the paragraph you refer to, and we shall be able to advise you.

Railway Medical Man.—Apologies for his reference to the *qualified* Railway Doctor whom he superseded.

H. F. D.—Transfer from one Presidency list to another cannot possibly involve loss of service or pension.

Hospital Assistant.—It is very pleasing to find so many of your class respond appreciatingly to the [illegible] change to make the *Record* a weekly paper. No less than 617 Hospital Assistants have already agreed to the doubled subscription.

A. D. M. (Ferozepore).—We much appreciate your enthusiasm in the cause of your service and in the cause of the local profession generally. It is [illegible] that a few have to work for the many in the [illegible] but if gratitude and co-operation do not [illegible] must not lose heart. Right must win.

W. C. M. (Jack.)—Make your [illegible] your [illegible] pointment.

C. F. (Ceril Xavia)—[illegible] tion you require in back numbers of the Record.

S. T. ([illegible])—[illegible] you refer to.

J. W. F.—[illegible]

C. F. S. ([illegible]) [illegible] and Directory of [illegible].

ORIGINAL ARTICLES.

[illegible] CASES IN WHICH [illegible] ABDOMINAL SECTION HAS BEEN PERFORMED A SECOND TIME.*

By [illegible], M.B., C.M., F.R.C.S. Edin.,
Surgeon to the Samaritan Free Hospital, London.

In this paper I include every case in my practice in which an abdominal section has been performed a second time, with the exception of six cases already recorded.[1] I have selected these cases for publication together because their histories illustrate a considerable number of complications, accidents and causes of death which may occur in abdominal surgery, and because very few of them are without special points of interest. The cases may be divided into three groups. In the first eight the second operation was performed on account of a return of disease after a period of good health. The second group consists of five cases in which the first operation was insufficient to effect a cure. In the remaining thirteen cases the second operation was required on account of some complication arising as an immediate or a remote consequence of the first.

GROUP I.

CASES 1, 2, and 3.—The first three cases were examples of the growth of an ovarian tumour in the second ovary after the removal of an ovarian tumour. In Case 1 the second ovary had completely separated from its normal connexions, probably by twisting, and was nourished by adhesions in its abnormal position. The patient is alive and well. In Cases 2 and 3 the patients very nearly died from obstruction of the bowel during convalescence. The former is alive still; the latter died from pneumonia at the age of sixty-five years, nearly five years after the second operation.

CASE 4.—In this case an ovarian cystic tumour had been removed by another surgeon three and a half years before I saw the patient. I diagnosed a second cystoma, but on opening the abdomen I found a very large collection of ascitic fluid, encysted by peritoneal adhesions. The left ovary and tube were absent. The right appendages were dotted over with a granular growth which might have been either tuberculous disease or papilloma. I removed the ovary and tube and the patient made a good recovery.

CASES 5 and 6.—In these cases it was supposed that both ovaries had been completely removed for neoplasms before the patients came under my care. In each case I was informed of this by the gentleman who had operated. Nevertheless, I performed in each case an operation in no way differing from an ovariotomy with deep enucleation of the growth except that the Fallopian tubes were absent. Both cases recovered. These two cases show a local recur[illegible] [illegible]. The condition [illegible] [illegible] [illegible].

CASE 7.—[illegible] ovariotomy [illegible]. The [illegible] an uncomplicated recovery and continued in good health until October, 1895, when she began to suffer [illegible] difficulty in keeping the bowels open. I saw her on January 25th, 1896, and she then had an [illegible] intestinal obstruction with abdominal [illegible], pain, and vomiting. I recommended an exploration with the formation of a fistula to relieve the vomiting and the pain due to peristaltic efforts, if no more effectual treatment should be possible. The peritoneum was found studded with numerous cancerous nodules and I therefore opened a coil of gut and made an artificial anus. The operation was successful in relieving pain, but death from exhaustion took place a month later.

CASE 8.—The gentleman who performed the first operation in this case informed me that he had found an ovarian tumour so thin-walled and so deeply embedded in the broad ligament that he thought it wise to drain the tumour instead of removing it. When I opened the abdomen, nine years later, I found a multilocular thin-walled cystoma of the right ovary and commencing disease of a similar nature on the left side. I had no difficulty in removing both completely. It is now two years since the operation, and the patient is stout and well, nothing abnormal being palpable in the pelvis.

In the foregoing cases I performed both operations in only two instances, the first and seventh. Death was not caused by the operation in any of these cases, and six of the patients are alive and well.

GROUP II.

In the following five cases the first operations failed to effect a cure. In each instance I performed the second operation only, and there were two deaths.

CASE 9.—The left ovary was removed from the patient in May, 1890, for the relief of inflammation accompanied by constant aching pain. After about two months the pain returned in the remaining ovary. The patient became so ill that, after consultation with the gentleman who had performed the first operation and with others, I removed the second ovary in March 1891. The patient suffered much for about a year after the operation. She then began to improve, and last spring she informed me that she only suffered from a bearing-down sensation of comparatively little consequence.

CASE 10.—This patient dated her illness from 1881, when she was much shaken and frightened by an accident. A few months later she began to suffer from profuse, frequent, and painful menstruation. In 188[illegible] she sought advice at one of our metropolitan hospitals. Something was removed through the vagina, but no benefit resulted. Early in 1883 an abdominal section was performed by the obstetric physician to another London hospital. After this the patient could not get about at all. A profuse red discharge from the uterus continued for three or four weeks at a time, and it was considered necessary to plug the vagina on several occasions. The pain was so great that injections of morphia were required

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* Reprinted from *The Lancet* by request.

[illegible] of a paper read before the Medical Society of London.

[illegible] has not been considered an [illegible] it might be maintained that the abdominal [illegible].

1 [illegible] Death from Ovariotomy: Transactions of the Royal Medical and Chirurgical Society, vol. [illegible]; Two Cases [illegible] Disease [illegible] Liver and [illegible] Society of London, vol. [illegible]

[illegible]

were very dense, and [illegible]
should be removed, and the [illegible]
done, with the full approval of [illegible]
formed the first operation. [illegible]
I removed the part of the [illegible]
solid and two very large cysts [illegible]
very strong and extensive adhesions [illegible]
operations, and two of the tumours required [illegible]
enucleation from the left broad ligament. The [illegible]
and Fallopian tubes were also removed. The [illegible]
on the right side were so tough that their separation required a very difficult and prolonged manipulation. [illegible] an operation lasting nearly three hours the patient was put to bed in very fair condition, but she died [illegible] hours later with symptoms which indicated that [illegible] or the bladder had been injured. I did not [illegible] latter could have been wounded because in separating from the enlarged uterus I had had a catheter passed as a guide until I thought I was working well behind the bladder. At the necropsy, however, an opening was found in the posterior wall of the bladder near its base. I can only offer a conjecture as to how and when the accident happened. I presume it must have been when I was enucleating the smaller solid tumour which was situated deeply in the cellular tissue to the left of the vagina. As I have said, I thought when I was enucleating this growth that I was working below the bladder, and I kept a keen look out for the ureter, which, however, I did not see. At this part the tissues were very vascular, and the catheter used to define the position of the bladder had also emptied it, so that I got no assistance from the sudden gush of urine that might otherwise have taken place. I think that probably the left ureter was pressed low down by the tumour in the deep part of the broad ligament, and that a portion of the bladder had been drawn down with it. The *post-mortem* report stated that the bladder was very large. This accident was most distressing, for the patient's chance of recovery would have been fairly good if it had not happened. I record the case because it is necessary to complete the series, and also because it shows how the ordinary [illegible] relations may be distorted by pelvic growths.

[illegible] in this case the patient complained of a [illegible] affection and of having had much pain [illegible] During that time she had attended a [illegible] for women and had been an in-patient twice. [illegible] 1895, an abdominal section had been performed, and since that time the patient's health had been much worse than before, the pain had been more severe, and [illegible] had been very irregular On examining her [illegible] extreme tenderness in the pelvis, which made it impossible to define the parts with certainty. The womb, however, seemed somewhat enlarged and I detected [illegible]—one the size of a Tangerine orange on the [illegible] and a smaller one on the right, this last being much the more tender of the two. The woman was in a state of great exhaustion from constant suffering, and every examination caused excruciating pain, which only subsided after two or three days. Her pulse was never below 120, and the temperature varied between 97.4° and [illegible]. On June 1st, 1896, about thirteen months after the first operation, I re-opened the abdomen and found that the [illegible] uterus was retroverted I found three [illegible] silk ligatures in a cavity between the right broad ligament and the sigmoid flexure. I carefully [illegible] walls of this cavity and also the left ovary and [illegible] formed an inflamed mass the size of a Tangerine orange. The patient died on the third day, with a high temperature and a rapid, feeble pulse. At the necropsy there was no evidence of peritonitis and there was no fluid in the peritoneal cavity except a few drachms of blood-stained serum. I attribute this death to the severity of the operation and to the exhausted and poisoned condition of the patient.

Case 12.—In this case a fibroid tumour was cut down upon by the patient's medical attendant in 1891, but nothing was removed. Afterwards a cystic tumour was tapped on several occasions, and in May, 1895, a cyst was opened and drained. Other tumours developed in the abdomen, and in June, 1896, the gentleman who had operated brought

Case 13.—The last case in this group was a [illegible] promising one The patient was forty-four [illegible] and had had her ovaries removed by the [illegible] cian to one of our metropolitan hospitals in [illegible] for the purpose of arresting hæmorrhage [illegible] uterine tumour. Her periods ceased for six months [illegible] the operation and then returned, [illegible] lost in small quantity and very [illegible] about once a month. On two [illegible] patient had some operation [illegible] an anæsthetic being given. [illegible] operations was performed [illegible] was the [illegible] after it [illegible] rapidly [illegible] to [illegible]

GROUP III.

In the remaining cases the second operation was performed on account of some complication resulting from the first operation or arising during convalescence. In this group I performed both operations in six cases. In the other seven I performed the second operation only. Five of the patients died. The first three cases in this group indicated three forms of bowel difficulty which may arise after an abdominal section.

CASE 14.—The patient when I first saw her was forty-four years of age, and had been under treatment for uterine tumours in America for eleven years. She had constant and increasing pain, which was more severe at her monthly periods. I was at first inclined to take the view which had probably been taken by others—namely, that an operation for the removal of the growths was unjustifiable when the patient might shortly hope for relief by passing through the change of life. After keeping her under observation for about six months, however, I came to the conclusion that she really did suffer sufficiently to justify surgical interference. On opening the abdomen, I found that there was in each iliac region a very hard oval tumour the size of an orange, attached to the body of the uterus by a pedicle about one and a half inches long and as thick as an ordinary cedar pencil. [illegible] almost devoid of blood-supply and [illegible] of calcareous degeneration, so that [illegible] They had created [illegible] by adhesions to [illegible] adhesions [illegible] fibroid [illegible] of the [illegible]

[illegible] administration of [illegible] tives always caused distension. [illegible] operation I ordered that [illegible] be persevered with for a few days. [illegible] after four days the pain became [illegible] nated in a kind of fit. Under [illegible] returned to her usual condition; [illegible] was able to take food more freely, and [illegible] more effect than before in moving the bowels. I believe that some adhesions gave way at this time. [illegible] left my immediate charge a fortnight later, with instructions to be very careful in keeping the bowels open and to limit the diet if she became distended. I [illegible] the partial obstruction which evidently existed would be overcome in time by the gradual stretching of adhesions.

The patient continued to be much troubled by pain and distension. She could not take laxative medicine or even an enema without suffering severely, and the bowels would not act spontaneously. After an interval of twenty-two months I agreed to the patient's urgent request that I should re-open the abdomen and separate the adhesions which I believed to be the cause of her trouble. On Oct. 16th, 1895, I opened the abdomen and found that the centre of the transverse colon was fixed to the back of the abdominal incision, nearer to the pubes than to the umbilicus, so that this portion of the gut had a V-shape, and the acute angle at the middle of the colon was at the time of operation occupied by a scybalous mass of fæces. The omentum was much adherent to the abdominal wall and also to the sigmoid flexure, which was thus fixed to the centre of the transverse colon. I separated the transverse colon from the omentum and put it in its proper place. The patient made a good recovery, and her bowel condition was much improved. She still complains of distension and pain in the right side, but Mr. Thorburn Stout, under whose observation she has been recently, tells me that the attacks of pain are certainly less troublesome as time goes on.

CASE 15.—The next case illustrates a remote and rare effect of a pelvic operation. The patient had a double ovariotomy performed in 1882. This was followed by troublesome constipation, which became a serious difficulty ten years later. She came under my care in May, 1892, when no treatment either by the rectum or by the mouth made the slightest impression on the bowels. This condition had developed very slowly. The finger in the rectum could not reach the seat of obstruction. Hardened masses of fæces were felt both through the abdominal wall and through the vagina, and also by examination of the abdomen. There was no rise of temperature. After consultation I opened the abdomen on June 22nd, 1892, and found the [illegible]

[illegible] to open it later. [illegible] operation, however, the [illegible] the pulse below [illegible] without further delay. [illegible] large quantity of fæces was removed, but death occurred about midnight. At the necropsy it was found that there had been no escape of fæces into the peritoneal cavity. At the lower end of the sigmoid flexure the canal of the gut was almost completely obstructed by a mass of cicatricial tissue which had developed on the mucous surface. The lumen of the canal was reduced to the size of a cedar pencil and passed obliquely through the diseased tissues. It is easy to say now that in this case it would have been better to open and clear the bowel at the time of operation.

Case 16.—This patient had a supra-vaginal hysterectomy performed in 1893, from which she made a good recovery. She continued well until March 22nd, 1896. On the evening of that day she ate a hearty supper, and on the following morning she was seized with severe pain in the abdomen. I was asked to see her on the 24th, when I found the pulse 72 and the temperature below 100°F. To the left of the middle line I could define a distended coil of intestine which I thought might be the sigmoid flexure. Further consultation was desired and as a consequence operation was postponed. In the meantime opium and belladonna were given, food by the mouth was withheld and the patient was nourished by nutrient enemata. Next morning the pulse was 108, the temperature was 103, and the abdomen was somewhat distended. I opened the peritoneal cavity and found a coil of small gut strangulated and sloughing. It had been tightly constricted by a band of adhesion which was very strong although not thicker than a piece of No. 3 Chinese silk. I washed out the peritoneal cavity and made an artificial anus; but diffuse septic peritonitis already existed, and the patient died about 10 o'clock in the evening of the day of operation. Surgical treatment cannot be employed too soon for the condition which existed here, but it is not always easy to decide beforehand when to operate. Cases of obstruction by band if promptly treated should give as good results as the operation for strangulated hernia. Unfortunately, the diagnosis is more difficult and the initial treatment is too often a purgative.

In the next two cases, Nos. 17 and 18, the second operation was required on account of a hernia in the scar of the first.

Case 19.—Though the peritoneum was not opened this case is included in the series because the kidney is an abdominal organ. The patient had lost a great deal of pus from the right kidney for five years before I saw her. I drained the organ, giving great relief, but four weeks later an obstruction in the left ureter necessitated a left nephrotomy. The patient died three days after the second operation.

Case 20.—In this case an unusually adherent dermoid ovarian tumour was removed on 11th June 1896, and the patient's condition gave no trouble or anxiety for a fort-

[illegible] and the [illegible] days [illegible] The patient was confined to [illegible] I then obtained a history [illegible] urine had from time to time [illegible] specimen which I had examined [illegible] very slightly hazy on boiling. The [illegible] the first fortnight of convalescence [illegible] and clear, but I did not examine it [illegible] July the twenty-second day after the operation, [illegible] was passed containing about half its bulk of pus. After this the patient's condition improved somewhat, and the urine again became clear and contained only a trace of albumin. There was no trouble from the bowels. The lower abdomen was soft and flaccid, and no fulness or tenderness was detected in the pelvis by bimanual examination. The left kidney remained very tender. On July 6th, the twenty-sixth day after the operation, the patient's condition was again worse; the left kidney was very hard and could not be touched without causing severe pain; the temperature rose to 105, and the pulse, which had kept steady, about 84 to the minute, rose above 120. The patient became drowsy and indifferent, and I expressed the opinion that she would die if an opening were not made into the left kidney. On 7th July, in consultation with Sir Douglas Powell and Mr Coker, of Uxbridge-road, it was agreed that the kidney should be opened, and this was done immediately. The kidney was not less than nine inches long, and broad in proportion. On tapping it with a trocar and cannula I drew off some red fluid but no pus. I therefore made an incision into the pelvis, but still got no pus. On inserting my finger I found that the calices were much enlarged, and I divided several septa, pushing my finger into the kidney in all directions, but gaining no further information as to the cause of mischief. The parts outside the kidney were quite normal. I inserted a drainage tube and closed the wound. The patient was very feeble for a couple of days and the temperature remained high, but after 9th July the course of convalescence was one of steady improvement. Later it was discovered that these attacks yielded promptly to purgation, and Mr Coker suggested that free purgation might have obviated the necessity for the second operation. This is just possible, although I hardly think it likely. It did not occur to any of us to treat the case in this way at the time of serious danger, and the bowels were then being frequently moved without difficulty. It should further be considered that although I discovered nothing but a much dilated kidney at my second operation, I must certainly have altered the relations of its calices to each other by my manipulations, and that in this way I may have broken down some obstruction to the exit of urine. I am inclined to think that this patient had suffered from pressure of the tumour on her ureters, especially the left, for many months before operation, that the kidney was distended accordingly, and that when she got up after lying on her back for a fortnight the left kidney was filled over and beyond a valve-like obstruction, which was closed by the pressure of the fluid within the kidney, and relief was obtained till the kidney was [illegible] At the second operation I probably relieved some [illegible]

[illegible] by the [illegible] for [illegible] [illegible] this patient [illegible] thoroughly [illegible].

In the [illegible] six [illegible] an [illegible] operation was [illegible] during convalescence from various [illegible]. In [illegible] I performed both operations, and [illegible] fatal. In the last four cases I performed the second operation only and all recovered.

Case 21.—The patient was a woman, aged thirty-five years, in whom extreme anæmia had been induced by profuse hæmorrhages caused by the presence of a fibroid uterine tumour. The patient was very feeble, but on the ninth day after hysterectomy the bowels had acted freely, the sloughing pedicle seemed to be separating nicely, the patient enjoyed her food, and I thought all would be well with her. On this day I made a note that the wound above the pedicle was free from all signs of irritation, and I removed all the sutures except those next the sloughing pedicle.* The following night the patient was restless and uncomfortable. On the twelfth day after the operation I found that about an inch of the upper part of the incision had yielded, exposing the omentum. There was no sign of adhesion or other inflammatory reaction. I carefully cleaned and re-closed the opening by three sutures, but the patient gradually sank and died thirty-six hours later. At the necropsy there was no evidence of inflammation in the abdomen except some injection of peritoneum behind the seat of rupture of the wound. There was much congestion of the lungs, and all the tissues were very anæmic. I have seen a considerable number of cases of rupture of the abdominal wound due to a sudden strain, as from retching or coughing after the sutures have been removed, but I have never seen any other than this, in which there was no attempt at union of the exposed viscera to the edges of the incision, or any in which a fatal issue has resulted from the accident.

Case 22.—This patient was a woman, aged forty years. There had been a uterine discharge for six years, which had constantly increased and had been very offensive for about two years. The uterus had been curetted by one of my colleagues in February 1896, but a microscopic examination of the scrapings had not indicated that the disease was malignant. After a time, however, a clinical diagnosis of malignancy was made, and I was asked to remove the uterus. When I saw the patient her womb was slightly enlarged and was discharging great quantities of offensive matter, and as a consequence she was extremely anæmic. Removal of the uterus seemed possible, and the patient, although made fully aware of the serious nature of operative treatment, was most anxious to take the risk. My colleagues with whom I consulted thought an operation was justified as affording the only chance of relief. I therefore agreed to open the abdomen and to perform hysterectomy if the disease seemed confined to the womb. I performed this operation, but cancerous disease had almost destroyed the whole circumference of the uterine wall at the [illegible]. In the evening, although the patient was very feeble, her condition, both physically and mentally, was satisfactory. Next day she appeared to be [illegible] well in many ways. She had passed [illegible] ounces of urine in [illegible], [illegible] the [illegible] collected [illegible] had passed [illegible] flatus [illegible] when a [illegible] tube was passed, and there had [illegible] vomiting. The temperature had risen to 101[illegible] in the axilla, but had come down to [illegible] by 10 A.M. The pulse, however, was extremely feeble, had risen to 1[illegible], and [illegible] the afternoon the heart failed still more. [illegible] the patient suddenly collapsed, the temperature [illegible] to 97° and the pulse becoming uncountable. [illegible] her a little later she was evidently [illegible] but still sensible, and the condition seemed to me to simulate the effects of hæmorrhage so closely that, after I had ascertained that there was no escape of blood from the vagina, I determined to re-open the abdomen. The patient was so ill that no harm could result if there was no hæmorrhage, and it did not seem right that I should leave the question of the possibility of the existence of hæmorrhage undecided. The second operation was a very trivial [illegible]—merely the removal of a few sutures and the [illegible] of the finger—but it might have been a very [illegible] procedure, as in Case 24, and it brings the case within the title of this paper. The patient died an hour later. At the necropsy some coils of intestine were found to be adherent in the pelvis, and there was some turbid serum there also, but no blood. It was undoubtedly an error of judgment to yield to this patient's desire to be operated on, but I have always been guided in this question by the view that if there be any doubt as to the course to be adopted, that is, if I think there is any chance at all of benefit being derived from an operation, the patient should be allowed to decide for or against this course if he or she has been made clearly to understand the risks involved.

In the last four cases in my list I was fortunate in being able to perform successful operations in emergencies occurring in the practices of others.

Case 23.—In this case the operations were the same as in Case 21—namely, a hysterectomy and a re-sewing of a ruptured incision on the eleventh day. But in this case the patient was a strong woman; her wound gave way suddenly during the night, and when I examined it some hours later I found the protruding bowel firmly adherent to the divided edges of the incision. I cleaned the parts, returned the viscus, and sewed up the wound, which did not give any further trouble.

Case 24.—I was asked to see a patient about two hours after a hysterectomy had been performed. She had suddenly become very pale and faint whilst in the act of retching. When I saw her she had every appearance of severe hæmorrhage. As the gentleman who had operated was not at hand I opened the abdomen, found that its cavity was full of blood, and that the right broad ligament had slipped completely from its ligatures. I re-secured the divided broad ligament and removed large quantities of blood, but I did not wash out the abdominal cavity because healthy blood-clot is not likely to do harm. A glass drainage tube was placed in the pouch of Douglas. It was doubtful for many hours, indeed for days, whether the patient would survive; but she gradually rallied and made a perfect, though slow, recovery. She was alive and well five years after the operation.

Case 25.—In this case the inverted fundus of the

* [illegible] Annals of Surgery, [illegible]

[illegible] an hour, [illegible] serious [illegible] by [illegible] all the [illegible] points. [illegible] was [illegible] within two hours of [illegible]. Very little bleeding had taken place, but [illegible] set up free hæmorrhage, and [illegible] little doubt that the patient would have [illegible] when reaction set in if the [illegible] of nature had been trusted to. I tied [illegible] arteries and broad ligaments and sewed together the divided uterine surfaces so as to close completely the opening from the vagina to the peritoneum. The patient made a perfect recovery.

CASE 25.—The accident that occurred in this case is, I believe, very rare. In dressing a patient whose pelvis was being drained I discovered on the fourth day after operation that the glass drainage tube was fractured. I [illegible] sutures and fished up the lower half of the tube with a pair of forceps, the blades of which were guarded by rubber tubing. The two pieces of glass accurately completed the tube. Another tube was inserted for twenty-four hours. Beyond a sharp rise of temperature and pulse, which was recovered from next day the accident caused no trouble and it did not delay convalescence.

The two great dangers in operating on the abdomen are the introduction of septic mischief during the operation and the occurrence of obstruction of the bowels or of paralytic ileus after the operation. In the foregoing cases I have succeeded in avoiding a fatal issue from these conditions, although in all the fatal cases septic mischief was primarily or secondarily an important cause of death. If a patient has to be operated on when the blood is already saturated with the product of septic mischief, as in Cases 16, 22, 11, 15, and 19, it is very difficult to avoid a fatal issue from septicæmia. But besides septicæmia and bowel complications there are many dangers and accidents which may occur in connexion with an abdominal section. The bowel conditions in Cases 14, 15, and 18, indicate remote dangers. The cancerous recurrence in Case 7 is a condition of great importance. Many accidents and mistakes are illustrated in my paper—injury to the bladder, Case 12; rupture of the abdominal wound, Cases 21 and 23; slipping of ligatures, Case 24; and snatching of an inverted fundus for a polypus, Case 25. All these accidents have occurred before and doubtless they will occur again; but I think that by bringing them together I may impress on operators the necessity for the greatest care during and after operations so that these and other dangers may be avoided.

[illegible]

[illegible] of Gonville [illegible]
Physicians, London [illegible]
of Surgeons, [illegible]

LADIES AND GENTLEMEN,—I [illegible] for our consideration to-day the subject of [illegible] and more particularly the [illegible] which occur in the later months of pregnancy. [illegible] the ground, I would like to mention [illegible] hage in the early months of pregnancy, [illegible] may continue into the later months.

The causes of hæmorrhage in the early months of pregnancy may be divided into causes *due to the pregnancy itself*, and causes *complicating the pregnancy*.

Those *due to the pregnancy* may be such as [illegible] abortion, which may be inevitable; incomplete abortion where something is left behind; and missed abortion where the ovum is dead, but has not come away. Then, any form of molar pregnancy, either an apoplectic ovum or the more organised and somewhat larger fleshy mole or the hydatidiform degeneration of the chorion. There is a further cause of hæmorrhage, which I think is commoner than the other—decidual endometritis, affecting more particularly the lower zone of the uterine cavity. Any of these, and perhaps deciduoma malignum should be added, may produce hæmorrhage in the early months of pregnancy, and are directly due to the pregnancy itself. Then there are certain *causes of hæmorrhage* which may *complicate pregnancy*. The commonest of all is mucous polypus of the cervix, and then hypertrophic erosion or adenoma of the cervix, which usually only causes hæmorrhage on coitus; malignant disease of the cervix and the vagina, and certain ulcerations, specific and non-specific. Vascular caruncle of the urethra is generally given as a cause of hæmorrhage, but that again practically only causes hæmorrhage on coitus.

In the later months of pregnancy any of these causes which I have mentioned, as complicating the pregnancy, may be present. The causes due to the pregnancy itself may be divided into three. First the so-called "accidental hæmorrhage," then the "unavoidable hæmorrhage" of placenta prævia, and thirdly deciduoma malignum. Deciduoma malignum is probably a sarcoma [illegible] affecting the uterus, and which has secondarily [illegible] the decidua and perhaps the placenta. German writers seem to think it is a primary disease of the decidua and placenta, but it is indistinguishable in the great majority of instances from an ordinary sarcoma. The [illegible] is that it is very rarely a true primary deciduoma.

This afternoon I want to speak specially of *accidental hæmorrhage* and *unavoidable hæmorrhage*.

Accidental Hæmorrhage.—Probably a good deal commoner than the other variety—[illegible] hæmorrhage from a partially separated placenta, which is situated in a normal position, that is in any part of the [illegible] of the uterus. We do not know [illegible] centa should [illegible]

[illegible]

[illegible] with hæm- [illegible] is found to [illegible] is infrequently associat- [illegible] and it is supposed that it is commoner in [illegible] where there has been a previous endometritis. [illegible] one almost always observes is that the patients are generally in a low state of health; it is not the robust, muscular, healthy sort of woman who gets this variety of trouble; it is the flabby and ill-nourished.

The hæmorrhage which comes from underneath the placenta may be so small as to remain located under the placenta, and beyond detaching a few of the chorionic villi, and indirectly doing a little damage to the circulation of the fœtus, and consequently retarding the aëration of its blood, it does not do much harm. It is often recognised at full term by a patch of adherent placenta. But generally the blood makes its way from underneath the placenta between the chorion and decidua and shows itself externally.

A more serious variety is where it becomes *concealed*, that is to say, where it has stripped up the placenta and a good deal of membrane, but fails to quite reach the internal os. These two forms of hæmorrhage may co-exist. The prognosis of the former is not serious, but the concealed variety, if at all profuse, is a very grave condition indeed.

The *symptoms* of the ordinary accidental hæmorrhage, where blood is showing externally, is simply external hæmorrhage *plus* the fact that the woman is pregnant and that perhaps some attempt is being made at labour. In the concealed form, however, the symptoms and physical signs are first those of shock and evidences of internal hæmorrhage or of hæmorrhage which is not explained by the amount of hæmorrhage which is showing externally. Then there is a great deal of pain, not intermittent, like true labour "pains," but continuous pains, pains of tension, due to the sudden over-distension of the uterus with one to three pints of blood which has been infused into it. When one comes to palpate the abdomen, the legs are found drawn up, the abdomen is very hard and tender, the uterus is also very hard, perhaps irregular in shape (bulging in one direction more than in another), the outline of the fœtus is obscured, no movements can be detected, and the fœtal heart cannot be heard. And when one comes to examine per vaginam the head, which may have been presenting on a previous examination, may be pushed out of the way, and cannot be recognised by the examiner's finger.

Accidental hæmorrhage has to be diagnosed mainly from unavoidable hæmorrhage, and practically the distinction can only be made when you can pass your finger through the internal os and can feel that the placenta [illegible]

[illegible]

[illegible] The distinction [illegible] of obstruction [illegible] and accidental hæmorrhage [illegible] always occurs before the [illegible] antepartum or first stage of labour [illegible] has also been mistaken for [illegible] internal hæmorrhage; but these [illegible] the second stage of labour and the [illegible] quite distinctive, because the uterus, [illegible] escaped into the peritoneal cavity, is found [illegible] and contracted just as at the end of the [illegible] labour, and the fœtus is felt free in the [illegible]. There are cases, too, where it has been [illegible] secondary rupture of an extra-uterine gestation [illegible] gestation which has ruptured into the broad ligament and at the end of so many months has ruptured into the peritoneal cavity and led to an internal [illegible] with shock. But the physical signs are quite distinctive because one finds the fœtus in the peritoneal cavity, [illegible] intra-pelvic fulness and displacement of an ordinary [illegible] or a slightly enlarged uterus.

The *prognosis* of most of these cases of accidental hæmorrhage is good if labour pains are present, but in the concealed variety it is bad. It is said that 50 per cent. of the mothers die and 90 per cent. of the children. The *treatment* of the ordinary form of accidental hæmorrhage, unless it is a very marked case of hæmorrhage, is to palliate—keep the patient quiet. If it is a [illegible] and you are sure there is no obstruction, give ergot to try to induce uterine contractions, and and at the same time put a binder on to apply equal pressure to the uterus. If hæmorrhage goes on, it is much better, especially after the twenty-eighth week, when the child is viable, to palliate no longer, but rupture the membranes. The membranes are ruptured by the finger nail made into a saw, or by a probe passed up along the finger. The almost immediate result is to make the uterus contract and retract, and so to close the uterine sinus, and then the hæmorrhage after this procedure almost always stops, and labour can be practically left to come on as it will.

In the concealed variety, however, mere rupture of the membrane does not bring on uterine contractions, because the uterus is over-distended and is in a state of [illegible], and practically primary uterine inertia is present. It is therefore advisable, as the hæmorrhage is [illegible] to release some of it; and you can generally [illegible], after digital dilatation of the cervix, by stripping [illegible] of the membranes on one or other side, [illegible] if you like. Very often you can then [illegible] of the blood-clot, which is often just above the internal os. This evacuation will give an opportunity for the uterus to contract down. If you find the hæmorrhage does not [illegible], [illegible] becomes apparent [illegible], it is much better to [illegible] the membranes and bring on labour as rapidly as

[illegible] ovum, which may be impregnated in the tube, does not become attached on the mucous membrane of the tube habitually, but it finds its way into the uterus, and, especially after the menstrual period, when there is no epithelium on the surface, becomes located somewhere on its lining membrane. He states that the reason of placenta prævia is that the ovum has not found any denuded patch until it reaches the lower zone, where perhaps some recent desquamative endometritis has been present. That has not been accepted by many writers; in fact, it is too recent a statement to have received much criticism. It rather bears out LAWSON TAIT'S idea of the cause of tubal gestation being due to previous salpingitis, where the epithelium would be denuded. Another theory, which I think will turn out to be the right one, is that advanced by HOFFMEIER. He believes that the placenta prævia is due to the development of the placenta within the decidua reflexa at the lower zone of the uterus The ovum might have been implanted at the normal fundal end of the uterus, and yet the placenta had been developed from persistent chorionic villi at the other end. That has been accepted by a great many Continental writers MARTIN, ALTENBACH, and OLSHAUSEN amongst others

Neither do we know for certain why hæmorrhage should so often follow this low insertion of the placenta. There are many theories about it. Its exciting cause may be a blow, just as in accidental hæmorrhage But the probability is that during the later months of pregnancy, long before any definite signs of labour come on, there is a distension and gradual gathering up of the lower zone into the main body of the uterus, and the placenta, being inelastic, is stripped off here and there, and therefore hæmorrhage results. Another theory, which has a great many adherents, is that the placenta, especially in the later months, grows more rapidly than the lower zone, and practically grows off the lower zone of the uterus, and the uterus becomes then detached from the placenta In any case, however, the hæmorrhage is maternal, coming from the uterine sinuses, so that the child does not die from loss of blood *via* the fœtal placenta, but from asphyxia.

The *symptoms* of placenta prævia are practically hæmorrhage in the later months of pregnancy. This hæmorrhage is not concealed, but is external, and can be diagnosed at once, and solely by passing the finger through the cervix; so that if one has a case of serious hæmorrhage in the later months of pregnancy, in order to arrive at a diagnosis one must, as a step to diagnosis as well as treatment, get the finger through the cervix That can be generally done by a little gentle digital pressure, without any dilating by bougies, especially in multipara. Occasionally the presence of the placenta can be recognised by vaginal palpation, obscured ballotement, &c., but these [illegible] signs are not very reliable. The difficulty in laying down anything like definite *treatment* is the fact that no two cases ought to be treated on quite the same routine principle; so I must only to speak of the outlines of treatment. Some cases do well without being treated at all, but these are the cases in which the hæmorrhage is slight and the labour "pains" are absent. In such cases the presenting part is forced down through the internal os and compresses the placenta against the bleeding site underneath it, and so arrests the hæmorrhage. One often meets with cases of ante-partum hæmorrhage which have not been seen sufficiently early to make an ante-partum diagnosis, and yet one finds afterwards that the only hole in the membranes is adjacent to the edge of the placenta, instead of being practically at the opposite pole, showing it was a case of marginal or partial placenta prævia.

I did not mention the classes into which placenta prævia is divided. The most serious of all is the complete placenta prævia, where it is central, completely covering the internal os. Here the whole placenta is perhaps nine inches across instead of seven, and covers all the lower zone and part of the middle zone of the uterus. Then there is the partial placenta prævia, where it overlaps the os to a certain extent, but the membranes can be felt as well as the placenta. And then there is the marginal placenta prævia, where the membrane comes down to the os and can be felt, or where, if we do not examine until labour has begun, it feels like a fleshy tongue coming down into the cervix Spontaneous deliveries would more often ensue were it not the case that in cases of placenta prævia malpresentations are more common, because the head does not adapt itself so well to the less cupped or otherwise altered lower zone of the uterus. The tendency, therefore, is to get a shoulder presentation which does not come down into the cervix, and does not compress the parts as a vertex or breech or thigh would do. Now, suppose one has a case of hæmorrhage, and is satisfied that it is a case of placenta prævia by having passed the finger through the cervix. We will suppose that gestation has not progressed twenty-eight weeks, and that the child is not likely to be viable. In that case, if it is placenta prævia at all, it generally means that the placenta is a central implantation. The more centrally the placenta is attached to the lower zone the earlier does the hæmorrhage occur. It is obvious that it may be so, for it is attached over a larger surface of the lower zone. Therefore there is no particular reason why you should not bring on labour at once, and it is very much safer to do so. In cases occurring after the twenty-eighth week if the child is dead there is no necessity to wait, and nothing can be gained by it If it is alive, which you can perhaps detect by hearing the fœtal heart or by movements, I still think that if the hæmorrhage is at all severe it is much better to interfere at once so as to try and keep that child alive; otherwise the child is almost sure to die. It follows, therefore, that in any case of placenta prævia at any period, when one has once made the diagnosis, one ought, if the hæmorrhage is at all severe or has recurred, to consider that that woman, if allowed to go on with her pregnancy is doing so at the risk of her life, and it is much better to bring on labour at once.

As to the methods of treatment, I think the first thing to do when one gets a case of placenta prævia, where the diagnosis is sure, is to strip off a bit of the placenta from the lower zone by passing the finger through the internal

[illegible] you find an undilated cervix and no [illegible] dangerous of all cases—it is better to [illegible] from that none, and then to dilate [illegible] be able to manipulate. You can dilate it [illegible] is used for rapidity, or you can dilate [illegible] bags, which may take perhaps twenty minutes [illegible] hour for each bag. The difficult cases are those [illegible] a rigid cervix in addition to these conditions, [illegible] is extremely difficult to dilate a rigid cervix when [illegible] placenta prævia. Having reached the membranes, easily done in a case of partial placenta prævia, and which one can generally do in the central varieties by working away in the direction of the thinnest part of the placenta, you then perform bipolar podalic version by the BRAXTON HICKS method, unless the cervix has been fully dilated by de RIBES' bag, and the vertex presents, when the forceps may be used. Turn the child by the bipolar method till you feel the knee, and then hook the knee down and bring it through the cervix to the child's half breech, which will compress the bleeding points far better than any hydrostatic bag. Labour pains will always come on, but perhaps not for an hour or two. There is not the least reason to draw the body of the child through. Neither the child nor the mother will suffer, and it gives you a chance of restoring the woman's vitality, which may be extremely low, by nourishment administered by mouth or rectum.

At the end of a certain number of hours the pains come on, the cervix yields still more, and the child may be helped through, or it may be left entirely to nature. I believe in many cases of placenta prævia which are treated up to that point satisfactorily, fatal injury is done by dragging the child through the cervix, causing lacerations and subsequent sepsis, or inducing *post-partum* hæmorrhage. There is no bag which exerts better or more equal pressure over the whole of the lower zone than CHAMPETIER de RIBES' bag inserted right through the membranes, or, according to some, by pushing it right through even the central placenta. This is recommended, but I have never done it and one wonders whether it is ever necessary, because one can almost certainly reach the edge of the placenta somewhere if it is stripped off sufficiently. The de RIBES forceps are quite strong enough to penetrate the placenta if need be.

Sometimes one is sent for to a case when one has not got the necessary instruments or assistants. You know it is a placenta prævia, but before inducing labour you want to get a nurse in the house and you want a colleague to help you. In such a case it is advisable to tampon the vagina *and the cervix*, after sweeping the finger round, and if you can get antiseptic gauze, ram that up between the uterus and placenta through the cervix against the bleeding points, packing the vagina below. That [illegible] blood, whether it be a mild or [illegible] pulations and perhaps the [illegible] down. Consequently it is necessary to [illegible] give her some form of [illegible] most rapidly effectual is venous [illegible] good results can be obtained by [illegible] several times had an opportunity of testing how [illegible] injections are absorbed by the rectum. The other day I had a case, near this hospital, of ruptured tubal [illegible] It was a five weeks gestation, and the patient was apparently moribund. I opened the abdomen and found it full of blood, and detected a small nodule on the left Fallopian tube not bigger than a filbert. As there was no doubt that that was the point of rupture, I clamped it on each side and stopped the hæmorrhage, which one must always do before infusion, otherwise the patient will only bleed all the more when you have put more fluid into her. I then gave her rectal injections of brandy and water to the extent of three and a half pints. One could feel the pulse improving every second, both in quality and in bulk. In less than ten minutes the rectum was empty—the whole of the previous injection had been absorbed in ten minutes. That is not the first time one has found a similar thing. Sometimes the rectum refuses to hold the fluid at all, and then a venous infusion must be at once given. The best apparatus is Dr. HORROCK'S infusion apparatus (Fig. 3). It is simply a little glass funnel to which is attached an ordinary india-rubber tube, and a glass nozzel, which is inserted into the vein. A silver instead of glass nozzle, is perhaps better, as it is not breakable. All that has to be done is to put a tourniquet round the arm high up, and this, even in the worst cases, will cause the median basilic or other large vein to dimly show itself. If that should not be so you can dissect down upon it. Then a couple of ligatures are passed underneath the vein, and the lower one

Fig. 3.

[illegible] quickly, the [illegible] the funnel, [illegible] air get [illegible]. A pint will easily [illegible] four minutes. In half a minute [illegible] the pulse is improving, and literally in [illegible] minutes the patient will tell you she feels [illegible] again. Cut the vein right across and tie the [illegible] ligature tightly. Sterilised water at 100° F. should [illegible] to which a tea-spoonful of common salt has been added to each pint. The funnel should be kept full by [illegible] being constantly added.

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VENEREAL DISEASE IN THE ARMY IN INDIA.*

By C. F. Marshall, M.D., F.R.C.S. Eng.,
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Mr. Henry Wilson, M.P., in an article entitled "The History of a Sanitary Failure" (*Indian Medical Record*, August 16, 1897), brings forward, in the form of many quotations from the Army Sanitary Commissions and from people in authority in India, what he considers is evidence in favour of the absolute uselessness of State regulation in checking disease in the Army. Further, he attempts to show that during the period of State regulation there was an increase both of disease and of immorality amongst the soldiers. Another pamphlet dealing with the same subject was recently circulated by the "Friends' Association for Abolishing State Regulation of Vice" (1897). We are all familiar with these "statistics," which are from time to time brought forward by societies for the abolition of every useful advance in medicine, such as the Society for the Abolition of Vaccination, statistics which are hurled at the heads of men who have devoted their lives for the benefit of the human race. We all remember the "statistics" which by certain fanatical persons were brought against Pasteur, one of the greatest benefactors to his race who ever lived; such persons would rather have us believe that Pasteur invented hydrophobia instead of discovering a means for its prevention and cure.

But, concerning the question under discussion, let us examine the value of this so-called evidence, and endeavour to discover the truth of the matter. With regard to the moral side of the question we leave this aside altogether, with the exception of pointing out, as has been done before again and again, that we are dealing with a state of affairs that has existed since the world began, and will continue till human nature ceases to exist; and further, that moral methods have been tried and failed. The fact we have to deal with is that there is a great amount of venereal disease in the Army, especially the Army in India, and that such disease ought to be preventable [illegible].

As an [illegible] of how statements can be distorted to serve the [illegible] of [illegible], it is only necessary to mention [illegible] the [illegible] quoted. "It is [illegible] failure" [illegible] as follows:— [illegible] existed, and as [illegible] the [illegible] doubt that the results were disappointing [illegible] all arguments that it should be [illegible] the contrary, the whole system should be [illegible] and reconstructed" (Sept. 12, 1896). This is the way things are [illegible] by the constructor of statistics; an [illegible] for reconstruction of the State regulation system by the *Lancet* is interpreted to mean an admission of the complete failure of any such system.

Let us examine another statement made in the pamphlet of the "Friends' Association." We give the figures as quoted by them, not having had opportunity to verify them:—

Year.	Admissions to Hospital for disease caused by immorality per thousand men in the Army
1885, Last Year of Acts on Statute Book	275
1886, Year of Repeal...	267
1887, Acts Repealed	252
1888, Ditto	224
1889, Ditto	212
1890, Ditto	212
1891, Ditto	197
1892, Ditto	201
1893, Ditto	195
1894, Ditto	182
1895, Ditto	174

The interpretation they give of these figures is that the effect of the repeal of the C. D. Acts on the Army in England was to reduce the amount of disease, presumably by rendering immorality apparently less safe. Could anything be more fallacious? There is nothing to be deduced from these figures at all, for it is obvious that during the period of the Act there would be more admissions to hospital because there was more regular examination of soldiers, and also this was compulsory. Again 1895 is not 1885, and during these ten years much improvement has been made in the treatment of these diseases, which would naturally diminish hospital admissions. On the same page of this pamphlet Mr. Hutchinson is quoted, saying that the health of England is improving every year since the repeal of the C. D. Act. If this is the case it is simply due to greater care taken by individuals and still more to improved methods of treatment.

It is unnecessary to quote further from these papers; the above are typical samples of how their statistics are made and their statements manufactured. There is, however, one sentence in the second pamphlet, "thus hundreds of thousands of readers are misled," with which we agree *in toto*!

Let us now consider the facts of the case. We have before us all the case books of the London Female Lock Hospital during the years that the Act was in force, and since that period. During the period of the C. D. Act two wards of that hospital were devoted to "government cases," i.e., cases of prostitutes examined at the garrison towns, such as Aldershot, Woolwich, etc., and sent up to hospital when diseased. At the same time the other wards

* Reproduced from [illegible] by special request.

[illegible]
[illegible] in [illegible]
[illegible] who w[illegible]
[illegible] after the [illegible]

[illegible] viz., that the severity [illegible] under the Act was vastly less [illegible]. We have not space to give [illegible] but any sceptical person can [illegible]. Roughly speaking there was one [illegible] the Act as against ten severe cases [illegible], during the same periods of time; [illegible] of the Act the proportion of severe [illegible] nearer the higher proportion. The average time of detention was also not more than half in the [illegible] Government patients as compared with the other class, in spite of the fact that the former were compulsorily detained till free of symptoms, while the others could take their own discharge.

This shows at any rate that by compulsory examination the disease was taken early and cured quicker (by cured we mean in the case of syphilis rendered free from infection at the time of discharge from hospital.) Also by compulsory detention during the contagious period it is obvious that disease must be diminished.

Now for some reliable figures. While the Act was in force in fourteen garrison towns in England the proportion of venereal diseases is shown as follows:—

	Soft Chancre.	Syphilis.	Gonorrhœa.
1860 (before the Act) ...	14%	3·6%	13·3%
1870-73 (during Act) ...	52%	2·0%	11·0%
1885 (11 years after repeal of Act)	12·7%	3·7%	12·0%

These figures show a diminution in syphilis from 3·6 to 2 per cent. That is to say during the Act the proportion of syphilis in the army was not much more than *half* what it was before and after the period of the Act. With regard to soft chancre we see there was a still further reduction during the Act and a corresponding increase after the repeal. (No doubt many of these would now be classed as cases of syphilis, still further diminishing the latter [illegible].) As regards gonorrhœa there was comparatively little diminution during the Act, but this is accounted for justly because the treatment was, in those days, not efficient, and also it was before the discovery of the gonococcus.

In conclusion, we can only say that the only rational way of reducing venereal disease in the English Army, and especially that part of it situated in India, is a thorough method of inspection of both males and females, conducted by medical men skilled in such diseases, and isolation of all cases found to be diseased till such disease is free from contagion, or cured as the case may be. That such a system is difficult to carry out in civil practice is obvious, in fact it is practically impossible, but in the case of the troops in India it must be feasible. The [illegible] it has not been as successful as was anticipated, are, [illegible], due to several causes—(1) incompleteness of the system; [illegible]

[illegible]

Finally, we may remark th[illegible] ing of the soldier, and the [illegible] time with [illegible] pursuits [illegible] affect the question to any [illegible]. [illegible] deal with a contagious disease [illegible] army. In the case of any other [illegible], such as [illegible] ria, scarlet fever, cholera, etc., elaborate [illegible] made and carried out with much success. [illegible] of checking these diseases by [illegible] or any such things, yet because syphilis is [illegible] venereal origin it is put by the powers that be on a [illegible] different footing; yet it is of the same class as the [illegible] mentioned, and by no means necessarily venereal, as many a medical man or nurse knows who has contracted it during the performance of duty.

If the State expects the army to protect the country it is the duty of the State to protect the army against disease of any kind, whether of venereal origin or not.

NOTES ON VARIOUS PHASES OF MALIGNANT DISEASE.*

By Thomas H. Manley, M.D.
Professor of Surgery at the New York School of Clinical Medicine.

The study of malignant disease, though presenting many melancholy aspects, is nevertheless one of most fascinating interest to the investigator of the processes of health and disease.

So far, notwithstanding the marvellous advances which have been made in other directions, on the *fons et origo* of cancer, no single ray of light has yet been shed, and hence, now or in the past our only guide in its treatment must be, the vague indefinite index of empiricism. Diagnosis of it is often attended with difficulty, and no one can predict with any degree of certainty the period it may run, before cutting off life.

This, being the case, it naturally follows, that prognosis in any case cannot be definite as to time, though we all know, that with the exception of labial epithelioma, genuine clinical cancer invariably destroys life, if it has not been cut off by some inter-current malady.

Of late years, since skillful surgery has been rendered so safe and certain in operative effects; the first [illegible] of cancer and many times pathologic hyperplasia [illegible] in no relation to it, and promptly met with scalpel and cleared away; generally on the ground that the [illegible] is primarily local, and that early extirpation arrests diffusion, or metastatic invasion. This course on the other hand is deprecated by some eminent [illegible], on the ground, that lastly, many benign tumors in their initial stages may present features of malignancy. Sadly, that the local hyperplasia of malignancy, is but the [illegible] or eruption of a general [illegible] that the [illegible] many may [illegible] a [illegible]

All are agreed, [illegible] a [illegible] [illegible] life or [illegible] should [illegible]

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* [illegible]

[illegible] the time of HIPPOCRATES, CELSUS, [illegible] until the close of the 18th [illegible] was regarded as primarily constitutional, [illegible] affection, not universally admitted.

About this time the memorable essay of PETIT[illegible] which struck at the heart of the ancients' theory. This was submitted before the Academy of Sciences in Lyons in 1773. At this time operative surgery was painful, even chemical aids were in a crude state, instruments of precision for diagnosis and operative manipulation were wanting, and of course antiseptics were unknown. The new doctrine sustained hard blows from many, eminent in their profession, who would not admit the young authors' classification of the primary stage of localization, the 2nd of propagative and 3rd of generalization.

Since this time, most surgeons have conceded that although the etiology of cancer remains as great a mystery as ever, its history incontestably points to its local origin. The mammary gland has been cited as an example: in which there is first a swelling, in the beginning painless and insensible; which, after a varying period of time, becomes the seat of lancinating pain and tumefaction extending into the axilla; 2ndly the pain becomes more accentuated. This is about the stage when the patient becomes aware that something serious has seized on her. The very thought of "cancer" racks her soul, and mental agony begins, for she knows it means her death knell, her spirit is crushed and a smiting blow has been struck on the vital processes. As one overwhelmed with secret grief, her powers soon show signs of giving way, the appetite fails, her nights are sleepless, and she is incessantly haunted with the thought that her doom is sealed; fated and condemned to the agonies of this dreadful scourge.

Now the 3rd stage is reached, her nutritive processes are profoundly altered. the flesh wastes and the spirits sink, her strength fails. Now or possibly before this, a propagation or generalization of the disease begins. But we must not confound propagation with generalization in cancer, for generalization may kill even before propagation has begun. Now the budding, growing, enlarging crop of new elements bursts through the integuments and hæmorrhage with stinging pain and a copious discharge of ichorous fluid steadily saps and exhausts the supporting powers of nature.

The new elements slough and a horrible gangrenous odor is present. Now we may have pus absorption, putrid infection, a general dissemination, or a metastatic spread of the malady.

DIATHESIS AS A CONDITION PRECEDING LOCAL LESION.

Now let us turn to the views of LEBERT and BROCA among the moderns and contrast their attitude with the "Localists"

BROCA declares of the diathesis;—"that it is impossible to foresee, or guard against it; it cannot be escaped from and is inaccessible to treatment. It is an index of the constitution, which precedes any local changes"

Therefore, according to him, the evolution of cancer [illegible] a pre-existing diathesis, provoking the organic [illegible] The secondary changes in the growth lead to [illegible] infection, and 3rdly, this infection tends to me[illegible] and death.

The [illegible] of cancer has been generally admitted in [illegible] Today, still [illegible] of Germany deny [illegible]

[illegible] Medical Society, New York, May 1881.

[illegible] which the latest [illegible] have [illegible] [illegible] to him. This distinguished [illegible] in opening the question, says:—"If a giant cell is isolated and examined by the microscope can one always tell whether it is a cancer or not?"

He answers, No! But if says he a suspected tissue be examined in like manner, can its character be definitely recognized? He answers in the affirmative although he insists that there are circumstances in which the microscope alone could not be depended on, as he always recognizes a clinical as well as a histological distinction. He says by this combination of the clinical features with the anatomical elements, he has in most cases been able to determine with certainty the probable character of a tumor or ulcer. Lebert, *Traite Malads. Practique des Malades Cancereuse.*

HENOCQUE long since maintained that predisposition was a leading factor in malignancy; and that the local mutations of tissue were stimulated into activity by various physiological and psychical states. HENOCQUE (*Dict. Encyclopædique de med. Hypothuses des matieres cancereuses.*

BOUILLARD after considering in detail the numerous theories on causation, declared that the initial factors of cancer are absolutely unknown PEYROULLE and BROUSSAIS deny both diathesis and predisposition. *Etude sur le cancer.* BICHAT in his time was a strong advocate of the local origin of cancer *Oeuvres chirurg.* T. III p. 421.

VELPEAU regarded malignant disease as primarily local in origin and capable of radical cure by surgery. This is a proof that our modern views on operative cure are by no means recent But ROUGET whose studies on this phase of the subject were most extensive, denied the possibility of cure of cancer by surgery, alleging that the cases cured were not genuine.

ROSWELL PARK is strongly inclined to believe in the infectious origin of malignant disease, and in a recent contribution in the annals of Surgery sets forth at considerable length his reasons for taking this position; but his theories are lacking the confirmation of scientific proof and hence must be regarded as only speculative.

ROGER WILLIAM who has presented us with the most complete treatise on cancer that we have in English, gives us no clue as to the direct systemic cause of cancer, but makes the extraordinary and melancholy statement that the malady is enormously on the increase; that it works its greatest ravages in those who live regular temperate lives, and that the libertine and the dissipated usually escape it.—*A Treatise on Cancer.*

THE CONSTITUTIONAL ELEMENT.

My out-experience has been that of all influences the constitutional takes first place in the rate of causation in cancer, and that at last while surgery comes in to relieve the victim of his agony and give him what MR. JOHN CHIENE of Edinburgh so appropriately designates "mental rest," it can only deal with surface indications, or as JACOBS puts it, in uterine cancer it can be regarded only as a palliative measure"—*Gaz. Heb.* '98

The conquest over this scourge can now or never be complete, untill internal remedies are discovered which will destroy the lethal elements in operation in the blood. Heredity, grief, and disappointments, disordered physiological states all play their shares. The younger the subject the more destructive the lesion.

It appears that cancer is strikingly a disease of advanced civilization and works its greatest havoc among those who partake the most freely of flesh food. It has been a question whether it is most frequent among the single or married. It is certainly one of the most common afflictions of senility among females.

in Cancer.

Befogged by biology we are forced back on physical phenomena to aid us and guide us in the recognition and prognosis of cancerous disease. Sight and touch enable us to decide on the character of various neoplasia but the nose never fails to stamp the character of a growth after the ulcerative stage begins, for the peculiar foul ichor of cancer has no possible counterpart and can never be mistaken. But some cancers kill before they ulcerate, and visceral cancer except of the hollow organs may spread far and wide before gangrene begins.

Peripheral cancer seizing on the epithelial stratum of the integuments or the orifices of the mucous membranes presents such a regular series of sequelæ and such distinctive and subjective features as are not liable to mislead the average observer though error is possible in certain atypical or undeveloped cases. Let us not overlook the many similar characters which epithelial proliferation may present in the anorectal outlet, the bladder, the prostate, the lips, the tongue, the pharynx and larynx, nor the occasional similarity between surface tuberculosis, syphilis and cancer.

Tuberculosis or syphilis we may cure by local and constitutional remedies, true cancer probably never.

It would, therefore, under an erroneous diagnosis, be a most calamitous affair if we subjected our patient to the sacrifice of an organ that might be spared. Let no one deceive himself into a belief that the microscope will always remove every possible doubt in all cases, for it cannot. It can define the histological chaos, but the bearing of this on tissue change it cannot foretell. Hence why the clinical features must be scrutinised and analyzed with great caution under all circumstances.

Notwithstanding the claim, that the spread of cancer is on the increase it is my opinion that it is not, but that since the verdict of the microscope is being so generally accepted without question, a great many cases of syphilis and tuberculosis are being entered on the lists as malignant diseases.

Since the propaganda of the early and wide incision has been adopted as a prophylactic, there can be little question about it.

Certainly, I have witnessed the ablation of lesions, stamped as "Cancers" which presented some of the genuine features of the malady to me, and cases have been under my care which had been pronounced malignant, that turned out innocent.

Visceral Cancer is quite invariably insidious in its advent, as very often the first intimation we have of it is when it has induced stenosis, perforated a tubular passage or made its way out to a serous surface.

This is most notably the case when it seizes on the œsophagus of the pylorous. In cancer of the lower passages hæmorrhage appears in its advanced stages with the excretions.

It was thought that the ablation of peripheral cancer was often followed by metastatic invasion of the viscera.

In doubtful cases of internal cancer the cachexia is one of the most invariable signs of its presence. In this class of cases it is evident that surgery can do nothing or little other than remove mechanical impediments. Surgery has accomplished marvels here in the way of securing temporary relief and renewed lease of health, as the tissues being highly vascular are hyperplastic and undergo repair with singular rapidity and perfection.

A MIRROR OF PRACTICE.

REMARKABLE UNDERHANDED UNION OF A FRACTURED THIGH-BONE IN AN OLD WOMAN OF SIXTYTHREE.

By James R. Wallace, M.D., F.R.C.S.I.
Calcutta.

Mrs. S., an Irish lady, sixty-three years of age, of splendid physique, who has lived in Calcutta for over thirty years, and by the way is the mother of three British officers in the Indian Army, slipped in her bath-room on Christmas Eve 1897, and fell heavily across the one-foot-dam so commonly seen in English houses in this country. She struck herself across the middle of the right thigh and immediately felt severe pain in the part, was unable to raise herself and had to be carried to her bedroom. Not suspecting that her leg was broken, she lay in bed suffering great pain. The extensive swelling and discoloration of the thigh and hip alarmed her and I was summoned to attend her at noon on the 26th December, two days after the injury. I found Mrs. S. in great pain, unable to move, with pillows propped behind her in a half sitting posture, and the lower half of her right thigh and leg lying almost at a right angle to the upper half of the thigh. There was great swelling of the parts, the ecchymosis, which covered the whole limb and extended backwards into the hip, was not only perfectly black, but the skin showed signs of blistering, from the extensive superficial extravasation of blood. The limb seemed bordering on a gangrenous condition, but was warm, free from smell, and pulsation could be felt in both the common femoral and the popliteal. There was also a feeling of healthy warmth in the foot of the injured limb. The patient seemed much exhausted, so after administering a little brandy and water, I gave her a few whiffs of chloroform, straightened the broken limb, swathed it in cotton wool and bandages, and after fixing a temporary extension weight to the ankle and settling the limb between two sand-bags, I advised constant nourishment and stimulation and watchful care for a few days before putting the leg into splints. I gave a serious prognosis, as from all appearances, gangrene seemed imminent. For three days the broken bone was kept in position with sand-bags, and during this period the enormous swelling subsided gradually, though the extravasation discoloration lost none of its suspiciously grave appearances, except that the sanious bullæ had collapsed, and the cuticle was dried and shrunken. This was a favorable sign and I therefore gave a guarded but fairly satisfactory prognosis. Extension of the limb was now accomplished by means of an 8lb weight and a pully arrangement over the foot of the bed. By the tenth day the swelling was almost entirely gone, the ecchymosis had altered in color, and though there was no sign of union between the injured fragments of the femur, both ends being still freely moveable. The limb was in perfect position, there was very little pain, except on pressure or movement and there was a complete absence of muscular rigidity or spasm. The thigh and leg were now fixed to a Linton's long splint and the extension apparatus readjusted. After three weeks this splint was removed and the thigh was put into a plaster of Paris encasement; the extension was continued. After four weeks the plaster casing

was taken off and the limb bandaged somewhat tightly with flannel. Extension was stopped and the patient was allowed to go about on crutches. The appearance of the thigh at the seat of fracture was all that could be desired. There was some degree of bulging, but the callous nodosity was comparatively small, though apparently very dense and hard. There was little or no limp when I saw the patient six months later, and only about half an inch of shortening of the limb.

The most remarkable features about this case, which render its publication surgically interesting, are —

(1) The old age of the patient—63—and her safe recovery from the intensely threatening traumatic conditions that made gangrene imminent.

(2) The perfect recovery of the use of her limb with scarcely any apparent shortening in one so advanced in years.

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GLOBULAR FOREIGN BODY IN THE ŒSOPHAGUS REMOVAL BY DIGITAL MANIPULATION

By Assistant Surgeon J. C. Gillmon, I.S.A. Lond
Civil Medical Officer, Puri District

Nabini, an Oorya female *æt* 28, presented herself at the Puri Pilgrim Hospital on the morning of the 15th October, with a history that on the previous day at about 11 o'clock while playing with her child, she put a rather large sized beetul nut into her mouth with the object of letting the child see it disappear, when to her surprise it went down the pharynx and lodged in the œsophagus behind the cricoid cartilage from whence it would neither come up nor go down

The patient appeared alarmed about herself, countenance anxious, eyes staring respiration somewhat embarrassed, frequent attempts were made to vomit but without avail, mouth filled with ropy and frothy saliva which could not be swallowed, water and other liquids were likewise rejected

On my arrival at the hospital I was informed about the case and after satisfying myself that the foreign body was neither in the larynx or trachea, I endeavoured to introduce the tube of the stomach pump but could not pass it more than 8 inches beyond the teeth A No 12 catheter was tried with no better success Externally the nut could be felt distinctly through the skin, but could not be moved, manipulation under chloroform failed to shift it

As the symptoms were not urgent, I resolved to see what time would do before resorting to œsophagotomy, and in the meanwhile ordered a hypodermic injection of morphia, nutrient enemas and perfect rest

The next morning the symptoms were much the same, so I procured the husband's consent to an operation should further endeavours fail to remove the nut. I passed the forefinger of my left hand down the œsophagus as a guide with a long curved forceps but could not grasp it After applying a 4 per cent cocaine solution with a probang sponge, I proceeded to use gentle and firm upward pressure externally with both index fingers, this caused the patient to struggle slightly, when with increased pressure I succeeded in forcing the beetul nut into the mouth.

This case shows that when there is a suspicion of the presence of a globular foreign body in the œsophagus which is likely in time to become smooth and covered with mucus, we should wait for sometime before resorting to œsophagotomy, provided the symptoms are not urgent; even though at first we may not meet with success.

A COPY OF PNEUMONIC PLAGUE SIMULATING ACUTE BRONCHITIS.

By Ram Dhari Gupta, L.T.M.S,
Special Plague Officer, Abu Road, Rajputana.

Gangaram son of Tulsiram aged about 45 years, resident of Rohera in Sirohee territory, arriving from Bombay, where he was a peon in the Custom Office, was detained here for observation as he was suffering from cough and slight fever, on the 17th October 1898. His brother died of plague in Bombay and he was coming home to perform the obsequies. In the evening his temperature rose to 103 4° F after chills and rigors. He was at once isolated with all his effects and diaphoretics and expectorant mixture prescribed At night he was a little delirious.

On the 18th instant his morning temperature was 100 6° F, but his cough was troublesome, he expectorated pure bright blood at frequent intervals On auscultation, tubular breathing could be heard with dulness of both lungs. He had 4 loose stools before 10 A.M—Salol in viii grs. doses had the desired effect after the third dose. He was very feeble and prostrated. His tongue was covered with coffee coloured fur, there was no diminution in the hæmoptysis. In the evening his temperature rose to 104 6° F, was delirious and comatose. The same mixture with milk and tea continued. The prostration became worse and worse

On the 19th instant his temperature registered 103 2° F, pulse small and slow, abdominal breathing The hæmoplytic blood was portwine colour but was unmixed with mucus He was listless, apathetic and face dusky, tongue furred and blood stained, conjunction suffused, great prostration and aphasia The stimulant mixture with hot tea and milk given every third hour After 2 P.M the condition became worse and sudden syncope setting in he died at 6 30 P.M.

The precautionary measures taken after his death were —His brother who had been here from Rohera to see him was isolated with his personal effects the same evening The hut and the clothing &c of the deceased were burnt to ashes, phenyle was freely poured around the camp The corpse was cremated and the bearers isolated for 10 hours.

From the history of the case and from my past experiences and observations, I believe that the man died of "primary plague pneumonia"

His brother who attended him for the last 50 hours will be detained for 10 days observaton, and every precautionary measure conceivable is being adopted to neutralize the infection.

The above case is interesting for the following reasons :—His brother died of plague in Bombay on the 9th inst and he left for home on the 15th inst. He was detained at Anand Observation camp for 6 hours and his personal effects were disinfected. He arrived at Abu Road in apparent health on the morning of the 17th inst. and the same evening he was attacked with fever and bronchitis and died after 49 hours illness The disinfection pass, No. 412 dated Anand the 16th October 1898, is in my possession.

Indian Medical Record.

1st November 1892.

GOVERNMENT SUPPORT TO INDIAN MEDICAL JOURNALS. ANOTHER GROSS INJUSTICE IN BENGAL.

THE question of supporting Indian medical journals from the tax-payers' money will probably come prominently before the public very shortly. We have referred over and over again to the favoritism of the Government in maintaining an unjust partiality towards the *Indian Medical Gazette*, so that our advocacy for the abolition of this baneful system is not a new one. We have attacked the policy of the Government and not the *Gazette*. The remarks we made in our last issue have been construed by some bilious fault-finders into a *libellous* attack on the *Indian Medical Gazette*. We do not put ourselves up as being specially versed in LAW, but we know enough to pilot ourselves clear of any of the shoals and quicksands of the perilous enactments which deal with libellously erring journalists. We libel nobody. We mean to libel nobody, and we determinedly hope we shall never libel anybody. But we shall voice our sentiments fearlessly in the exposure of wrong-doing, and we shall never be backward in letting down the full glare of journalistic daylight into every creek and corner of all such crooked policies which tend to the perpetuation of monopolies that crush out every effort of honest, independent enterprise. This is clearly our duty, and we mean to do it, even at the risk of being dragged into a Police Court. For our own part we are so sure that we have not been guilty of the faintest infringement of the law of libel, that we would rather welcome a public enquiry into what we may pointedly style a "*godfathering of medical journalism in forma pauperis*," by which we mean nothing more nor less than this, namely, that the Government, imbued with the idea that a medical journal could not exist twenty-five years ago without State aid, decided to maintain and to support one by a subsidy from the revenues of the country, and we hold that *no* such aid is needed to-day by any medical journal that has the support of the medical profession, and as there are medical journals competing in the field, the time has come for the withdrawal of such paternal anxiety and wet-nursing on the part of the State.

Now as the whole subject of such State protection and partiality is likely to gain wide publicity and interest, we venture to place the whole matter before our readers and the public, as we have dealt with it from the beginning up to the present time, though we must apologise for reproducing our former articles, our only excuse being, to leave out no link in the chain of evidence as to our dealings in this matter.

Our first article appeared in June 1891, and was as follows :—

"We believe in the old Scotch maxim that "fair play is bonny play," and learning from good and reliable authority here in London, that the Indian Government pays a handsome monthly subsidy to the proprietors of the *Indian Medical Gazette*, for the generosity and impartiality of the Government, for both of which qualities it has a distinct reputation, by affording an equal share of support for this Journal as is accorded to our contemporary. We are perfectly prepared to carry on this Journal without Government support, and to give the fullest sway to the honesty and honorable maxim of 'live and let live'; but we must claim a 'FAIR FIELD AND NO FAVOR.' If, when there was no medical journal in this country, the Indian Government very rightly considered its patronage and support were necessary, and might with justice be given to private enterprise, to encourage the undertaking of establishing a journal in the interests of Medical Science, the time has, we believe, now come, when with healthy and vigorous competition, such enterprises might either be left to maintain themselves and Government support be entirely withdrawn, so as to give an equal chance to all competitors in the arena of medical periodical literature, or else the Government should equally distribute its favors. We maintain, as representing independent and distinctly private enterprise, that we have a perfect right to an existence, unhampered by the crushing and fatal influence of any one-sided partiality or favoritism, and it is our purpose to test this question to its fullest possible and legitimate extent. We have, as an initial measure, forwarded the following letter to the Chief Secretary to H. M's. Indian Government, Simla, dated 14, Furnival Street, London, 29th April 1891:—

'SIR,—As I am about to apply to H. M.'s Indian Government for similar support as it has graciously accorded to the *Indian Medical Gazette*, for this Journal, may I beg the favor of being informed as to the number of copies of the *Indian Medical Gazette* for which the Indian Government subscribes monthly. Two copies of the *Indian Medical Record* are forwarded monthly to the Indian Government. Soliciting an early reply to my London address.'

I am, dear Sir, Yours obediently,

JAMES R. WALLACE, Editor, *Indian Medical Record*."

In our September 1891 number we published the following remarks and letter :—

"In our article on this subject in our June issue, we published the letter we forwarded to the Indian Government, seeking for information as to the support the Government accords to the *Indian Medical Gazette*. The following reply has been received from the Under-Secretary to the Government of India, dated 17th June 1891:—

'In reply to your letter dated the 29th April last, I am directed to say that the Government of India subscribe for only one copy of the *Indian Medical Gazette*.

'2. I am to explain that, as the charge for the purchase of, or subscriptions for books, is now borne by Provincial Revenues, the Government of India do not ordinarily subscribe for more copies of any work than are needed to meet their own requirements. It is usual for the Local Governments to decide as to the number of copies of a publication which is required for their own use or for distribution to local officers.'

"It is clear from the above that the support of the Government of India is limited to but one copy of the *Gazette*. The term "Provincial Revenues" indicates the region from which "the handsome monthly subsidy to the proprietors of the *Indian Medical Gazette*," which we referred to, is derived, and we will now extend our respectful enquiries in that direction, and hope either to bring about a fair and equal distribution of "the loaves and fishes," or secure "fair and free trade" in the arena of literary fishing. We simply desire to see unfair monopolies abolished. In this we have no personal ill-will against any one, and we protest emphatically against our

[illegible] being thus [illegible]. Some kind friend has warned us that our enquiries in this direction have stirred up strife in certain quarters, and that a firm resolve has been made to crush us. It is a compliment to know we are worthy of such friendly designs. However, we have known of such threats being put into active operation before now against thriving institutions, and every secret and cowardly device has been used to undermine their foundations and blast their prospects. Meanness has often assumed the garb of decorous formality and hurled its weapons upon the unsuspecting object of its jealousy and spite. But there is a censor in life which follows every act of meanness that is committed, and sooner or later pays it a well merited retribution. Right must win. We are prepared to face our duty manfully and bravely, and to use the talents God has given us for the well being of our followmen. In such an aim and with such a goal in view, we commend ourselves to the good judgment of our readers and of all right thinking men, hoping for no better epitaph than that 'we tried to do our duty"

In our April 1st, 1892 number we produced this article —

"After a long silence and seeming inactivity, we have approached this subject once again and have acted upon the suggestion of the Government of India to direct our inquiries to the Provincial Governments of the country, to each of whom we have sent a copy of the annexed letter, which explains our latest position

CALCUTTA, *11th March 1892*

TO THE CHIEF SECRETARY
TO THE GOVERNMENT OF BENGAL

DEAR SIR,—In connection with this office letter, dated London, 29th April 1891, and the Government of India reply thereto, dated 17th June 1891, referring to the support given by Government to Indian medical journals, I was informed by the Government of India that 'the purchase of, or subscriptions for books, is now borne by Provincial Revenues'

As this Journal has been carried on successfully for the past two years without Government aid (its subscription lists being open to inspection to verify this assertion), sufficiently demonstrating its hold upon the confidence of the profession in India,—both official and non-official—it is my intention to appeal to the various Provincial Governments with the object of securing for independent journalistic enterprise that impartiality of conduct which is the declared policy of the Indian Government in all its provinces, and the effective and honest working of which is the best stimulus to private enterprise.

I would beg to point out that the *Indian Medical Gazette* is the only other medical journal in the country, that it receives very liberal support from the State, and I would respectfully urge that as we both occupy the same field, any official aid given to one, must be detrimental to the other. I am fully prepared to do without State support, and to allow the question of the continued existence of this journal to rest with the verdict represented by the support and confidence of the medical profession, but I feel bound to claim and to solicit that State support be henceforward either withheld from the *Indian Medical Gazette* or that such support be equally divided between us.

I would further urge that there can be no special merit attaching to the *Indian Medical Gazette* to bind the Government to support it. The plea that State aid was a necessity to inaugurate and establish medical journalism in this country twenty-five years ago, cannot possibly be put forward to-day, and our several subscription lists will effectively settle the question of our work of usefulness to the profession in India, and thus decide the feasibility of survival *without* State aid. All I ask for is "fair play," and this I beg to claim as the first consideration of any Government towards its subjects.

In view to further action in this matter, may I beg to be informed as to the number of copies of the *Indian Medical Gazette* subscribed to monthly by your Government, and the money value thereof.

Yours faithfully, JAMES R WALLACE, M.D
Editor and Proprietor, *Indian Medical Record*.

"We are hopeful that the Government will see its way to the withdrawal of the subsidy it pays to the *Indian Medical Gazette*, and thus permit both journals to enter the field of their common enterprise on a fair and equal commercial basis There is a very distinct precedent for the line of action we are adopting Some years ago two rival engineering journals came into existence, and it was found out by one of them that the Government had subsidised the other An appeal was made to the Provincial Government concerned, and as no satisfaction was received, the matter was forwarded on to the Governor-General Here, too, little satisfaction was obtained, and appeal was made to the Secretary of State for India, who ordered the subsidy to be stopped"

The various Local Governments thus approached sent replies to the above letter which we here epitomise —

Bengal Government —"The Lieutenant Governor sees no reason to modify the arrangement under which certain officers are supplied with copies of the *Indian Medical Gazette*

Burma Government —"No copies of the *Indian Medical Gazette* are subscribed for by this administration

Punjab Government —"This Government subscribes for five copies of the *Indian Medical Gazette* at an annual cost of Rs 75"

Madras Government —"Government is not prepared to supply the information asked for."

Bombay Government —"This Government does not subscribe for copies of the *Indian Medical Gazette* in the CIVIL Department" "Twenty four copies are subscribed for by this Government in the MILITARY Department, and supplied to Station Hospitals in this Presidency at an annual cost of Rs 360"

Central Provinces —"The Chief Commissioner finds it desirable to procure one Indian medical journal for Civil Surgeons' libraries, but that a second journal is unnecessary Accordingly, one copy of the *Indian Medical Gazette* is bought by the administration for each of the 18 Civil Surgeons in this Province."

N.-W. P. and Oudh —"On the recommendation of the Inspector-General of Civil Hospitals of these Provinces a similar number of copies of the *Indian Medical Record* will be subscribed for by this Government as for the *Indian Medical Gazette*."

We will show we have that we moved in a perfectly legal, decent and constitutional manner to put an end to this intolerable immorality of State patronage, with the result that while the Governments of Bombay, the Punjab, the Central Provinces, Burma and the N.-W. P. and Oudh courteously acknowledged our right to obtain the information we sought at their hands and provided it, the Bengal Government, which offends most in its godfatherly care of the *Gazette*, positively evades declaring its questionable appropriation of public money for the up-keep of its pet journal, and the DEVIL DANCING GOVERNMENT OF MADRAS, reigns like Beelzebub, with a secret seal upon the deeds of its Council Chamber. And this is allowed to pass as a grim parody for constitutional Government! "Woe unto thee Madras! It shall be more tolerable, &c., &c." We shall not complete the quotation, lest like as in the instance of our tirade upon the Indian Government for calling it "a wastefully gilded incubus," the opinion of the Advocate-General shall again be taken as to whether a case for our prosecution could stand. The negative opinion was given then, but who knows what may not come of predicting the still severer judgments of the great ancient cities of the plain—Sodom and Gomorrah—upon benighted Madras! We should probably be hanged and quartered, and so we prudently desist.

It might be pleaded that the Government has a perfect right to distribute a certain number of copies of the *Indian Medical Gazette* among its subordinate officials by way of further educating them; or that it has an equal right to endow the libraries of Civil Surgeons by the free distribution of medical literature.

We would meet these supposititious needs by absolute facts. The *Indian Medical Gazette* is a MONTHLY journal, and charges a yearly subscription of Rs. 18. It is therefore beyond the means of Government medical subordinates, such as Hospital Assistants, for whom the Government aid is presumably given. The *Indian Medical Record* is a FORTNIGHTLY journal, and charges a yearly subscription of Rs. 6 to Hospital Assistants. That it meets the needs of these classes is proved by the very large numbers who subscribe to the *Indian Medical Record* in spite of the gratuitous distribution of the *Indian Medical Gazette*. To defend the "grant in aid" of the Government to the *Indian Medical Gazette* on the plea of embellishing the libraries of Civil Surgeons, is altogether unjustifiable; for while there may be some justice in the plea of free distribution among its poorest class of medical servants, there surely can be no justice in offering "free education" to those who can easily afford to pay for so comparitively costly a journal as the *Indian Medical Gazette*.

The fact is the BENGAL GOVERNMENT is nearly the sole supporter of the *Indian Medical Gazette*, and we are informed that is pays it proprietors the handsome YEARLY SUBSIDY OF SEVEN THOUSAND TWO HUNDRED RUPEES!

We claim that the verdict of the local medical profession is in favor of the *Indian Medical Record*, and this verdict is alone obtainable by a comparison of the subscription lists of the two journals.

We have reasonable grounds for doubting that the *Gazette* can even claim to be called a *Service* journal, if the support it receives from the Indian Medical Service Officers is to be used as a criterion.

We would add that the Bengal Government has but to demand of the *Indian Medical Gazette* and of the *Indian Medical Record* to place authenticated copies of their respective subscription lists in its hands, to be convinced which of the two journals has the confidence and support of the local medical profession whom the State is professedly so solicitious and anxious to enlist and educate, as to spend yearly over 7,000 Rs. of tax-payers money in trying to accomplish its object.

We again affirm that we are perfectly able to exist—and our viability is proved by an experience of nine years of life, and our development into a fortnightly journal and our projected development into a WEEKLY from the 1st January 1899, are tangible proofs that we can do so—without the support of Government, and we now declare that we *do not ask* for any portion of the "grant in aid" given to the *Indian Medical Gazette*, and since we have placed within the reach of the local profession, a cheap and thoroughly approved fortnightly medical journal, serving all and more than the purposes of the *Indian Medical Gazette*, we have made good our claim to ask the Bengal and other Provincial and Presidential Governments to cease applying *public* money for the support of another medical journal, carried on as ours is by a *private* proprietory.

We claim with some degree of pride, that the *Record* has done more for the building up of the local medical profession in the nine years of its existence, than the *Indian Medical Gazette* has done in the quarter of century that it has lived. It has not sought to do this and it cannot possible do so. Its policy could not harmonise with any scheme that would place the local profession on a plane of equality with officialism. We claim too, that the *Record* has greatly encouraged and advanced literary effort on the part of all grades of the local profession, such as the *Gazette* has never done.

We have sunk a large capital in our enterprise and we are about to still further improve and enlarge the *Indian Medical Record* to make it still more worthy of the confidence and support of the local medical profession, but we believe we will have the approval of all right thinking men the world over, in asking the Government once for all to desist from inflicting a serious wrong upon independent medical journalism in this country by subsidising and protecting one journal in preference over others, and thus adopt a line of conduct that will be consistent with the position of an impartial and liberal Government, giving one and all A FAIR FIELD AND NO FAVOR.

The Indian Government once subsidised *The Indian Engineer*, and its rival *Indian Engineering* appealed against the injustice. The appeal failed to move the Indian authorities, but when the grievance was laid before the SECRETARY OF STATE FOR INDIA, the edict went forth that the subsidy should cease, and it ceased.

This is an encouraging precedent for the local profession and for this journal. We shall loyally lay our case before His Excellency the Viceroy in Council, and failing in our appeal, we will proceed to the Secretary of State for India, and we shall not cease in our efforts till we have secured redress for a grievance that claims the interest not only of the local profession but of the general public in India.

NEW DISCOVERIES IN RESPECT TO RABIES AND OTHER NERVOUS DISEASES. SUCCESSFUL APPLICATION TO TETANUS.

The Study of Medicine at the close of this 19th century can certainly not be accused of being dull, whatever its daily routine of practice may be; it opens up fields for speculation and daring flights of imagination sufficiently varied to attract the wildest romancer and we find the fertile pen of Mr G. Wells doing for it what Jules Verne did for other branches of science not so long ago.

Mr. Wells has happily hit the mood of the hour, he "shoots folly as it flies," for it is but a truism to say that where the amount of exact knowledge is small, the mind runs riot and tends to indulge in speculative fancies and gaudy but shadowy hypothesis.

From the earliest times medicine has been enlivened by these delightful mental exercises.

We can watch its progress through past ages hand in hand with superstition, priestcraft, astrology, magic and all the other occult and mysterious influences which from time to time have reared up their heads, and hoodwinked mankind, by playing upon his supernatural fears; while the theories that have been propounded have been as numerous and often as evanescent as the leaves that autumn scatters to the winds, or the snow that falls upon some mountain torrent.

Medicine like other things has had its romance, nor is the final page of the last volume yet reached, far from it indeed! the plot is only deepening, never have the imaginative faculties had freer scope or more complicated situations to deal with, and no one can foresee what startling and unexpected denouements may unravel before us.

What could be more strange than the modern serum treatment of disease? Could anything savour more of savage superstition or of the barbarity of the middle ages, yet strange as it is that we should try to cure our diseases by injecting into our bodies the blood-serum and extracts from various organs of lower animals, it is an accomplished fact, it is the teaching of the leading pioneers in medicine, it has been baptised by much research and comes upon us crowned with the halo of science.

It is only necessary to read some of the recent contributions to medical literature, such as Professor Fraser's address on Medicine at the Annual Meeting of the British Medical Association at Edinburgh, of which we gave an outline in our issue of October 1st, or Dr. Heddaeus' articles on "The Present Position of the Therapy of Traumatic Tetanus" translated by us from the Munchener Medicinische Wochenschrift, to see that there are many among the supporters of this form of treatment who think that at last the bars have been removed, and that they have had a glance through the gates which guard some of Nature's most intricate secrets

Whether or not our teachers have been led astray by blind enthusiasm time will tell, but in view of past failures and disappointments it is well to preserve an open mind and to greet each new discovery with caution and reserve.

In our issue of 16th August we drew attention to the observations of M. Arloing which expose certain flaws in the logical sequence of deductions which have led up to the present position of serum treatment. M. Arloing has [illegible] the agglutinative serum reaction; he has shown that this reaction can be obtained after the treatment of animals by certain chemical substances, as well as by the introduction into their bodies of specific bacilli.

The observations are of the greatest interest and it still remains for the advocates of serum treatment to explain them away; for what they seem to amount to is, that we can place our bodies in the same position of defence against certain diseases by the imbibition of certain well known drugs such as eucalyptol, guiacol, creasote etc, as by the newest serum treatment, in as far, at least, as the agglutinative reaction is a measure of defence.

We now come to discuss the practical import of the communication made by Mr. Babes of Bucharest to the French Academy of Science, a full translation of which will be found in our 16th September number.

M. Babes was led, by a series of observations, which we need not recapitulate, to try the effect of injections of nerve substances derived from the spinal cords and brains of sheep and rabbits in certain diseases as Melancholia, Neurasthenia, Epilepsy etc. M. Constantin Paul communicated the results to the Academy of Medicine at Paris in February 1892 and stated that he was convinced of the good effects brought about.

Later on M. Babes extended the method to the treatment of Rabies, he says. "I have tried to prevent or cure rabies by my method, that is, by the subcutaneous injection of a certain quantity of the nerve substance of the bulb and spinal marrow of healthy animals."

As the result of his preliminary investigations in this direction he states. "We are continuing these interesting experiments under altered conditions of infection. But we are anxious to publish these preliminary results which prove, that it is possible to antagonise rabies by injections of nerve substance derived from the bulbs of of sheep which are healthy, and have undergone no previous treatment

As M. Babes is well known to be one of the most accurate observers in Europe his results must be received with all respect. And it is obvious that if his anticipations are realised the Pasteur method of treating hydrophobia will be a thing of the past.

M Babes' experiments are sufficient to show that normal nerve tissue contains some substance which is inimical to, and neutralises the poison of rabies; this being so, it is only a matter of time to isolate it, and to concentrate it sufficiently for practical therapeutic purposes.

They show that it is not necessary to employ nerve tissue taken from animals which have previously suffered from rabies, experimentally induced.

The basis of Pasteur's treatment is, that the presence of the protective substances in the spinal cords of the rabbits employed, is due to, and the direct result of, these rabbits having suffered from rabies (induced by inoculations); that, in other words, the specific action of the poison of rabies was to produce in the animal an antidote, an antitoxin.

Babes' experiments show the fallacy of this hypothesis and of all deductions drawn from it, and his simple method of treatment will be free from the many obvious objections which have been, and can be advanced against Pasteur's.

Striking and revolutionary as all this is, it does not exhaust the interest and importance of the new treatment which M. Babes' speaks of as "his method." We find that it is also applicable to Tetanus and other poisons.

He says "By the results obtained by Wassermann and Takaki in tetanus as well as those obtained by Vidal, Marmiation, etc, in strichnine poisoning my procedure of treating certain maladies of the nervous system by the injection of the normal substance of the brain of sheep has acquired a solid experimental basis."

At the time of writing we can go even further than that, for a remarkable and early fruition has attended the researches of M. Babes.

With respect to Tetanus its practical application has been tested and proved successful, by Dr. Krokiewicz of Warsaw.

Last July Dr. Krokiewicz had two cases of tetanus under his care, one of these he treated by the antitoxin method the other according to the method of M. Babes by the injection of the fresh emulsion of the brain of a calf.

The two cases differed but little in severity, that treated by the antitoxin method (a man) had a shorter incubation period and was consequently more acute, while in that treated by M. Babes' method (a woman) trismus was more marked, the difficulty of feeding was great, and the general condition not so satisfactory.

The course under treatment was very different in the two patients. In the woman, two injections of brain emulsion representing in all about ½ oz. of brain substance, effected a complete cure in eleven days, with no ill-effect other than the formation of two small abscesses at the seat of the second injection which was somewhat too concentrated. The man, on the other hand, received four doses of antitoxin (1 in 10,000) amounting in all to 196 c.cm., and yet was not cured for eighteen days. Furthermore the brain emulsion produced an almost immediate alleviation of the tetanic symptoms so that the patient begged to have the injection repeated, the administration of the antitoxin, on the other hand, was followed by severe paroxysms, sleeplessness, fever, and a sense of dread which allowed it to be repeated only under the pressure of dire necessity.

This it must be admitted, is a very remarkable result, it is all the more remarkable considering that tetanus is one of the diseases in which such splendid results have been confidently expected from the antitoxin treatment, and considering the immense boom there has been in antitetanic serums, of which we believe there are no less than seven in the market.

This new method of treatment is sure to attract a large amount of attention and its merits will be carefully tested; should it prove as effective in other hands as it has done in those of Dr. Krokiewicz it will be another and severe blow at the whole theory on which the treatment of disease by antitoxins is based and will considerably modify the practical aspect of many questions which modern bacteriology has somewhat too confidently accepted as definitely settled.

It is to be further noticed that M. Babes does not limit the application of his method of treatment to the diseases already mentioned, he says,

"Further our experiments have proved that the substances contained in the bulb, and which antagonise the infection of rabies and of tetanus, act upon certain toxins, certain alkoloids, certain poisons differing in character in such a manner that there can be no doubt that my procedure may have a beneficial action in different nervous diseases of a toxic or infectious nature, as well as in those diseases in which favourable results were obtained by Constantin Paul and myself."

:o:

REST IN THE TREATMENT OF SKIN DISEASES.

Dr. W. Allen Jamieson, M.D., F.R.C.P., Edin., in his Presidential address in the Section of Dermatology of the British Medical Association meeting recently held in Edinburgh, thus defines Rest.

Rest consists in the removal of irritants, whether these be such as worry and distress the mind, or tease and vex the body.

Why is rest necessary? Rest is required as a consequence of fatigue or exhaustion. It is our duty to rest the skin from the deeper side by what therapeutic means are at our command. Thus all internal causes which may be suspicious are to be eliminated, by correction of dietary, by cutaneous sedatives, of which antimony may be taken as a type, by hæmatinics, and by agents which influence metabolism, such as arsenic, or flush the sudoriferous canals as pilocarpin

More closely considered rest is procured for the skin by freeing it from the effects of the over activity of its own constitutents or appendages, of this an example is provided by ichthyosis. The most prominent feature here is the continual accumulation of the horny layer on the surface, in place of its regular and imperceptible desquamation.

Here by certain keratolytic applications of which resorcin is the chief, used as a soap supplemented by its employment as an ointment or in combination with glycerine of starch, we can in many cases perfectly remove the abnormality. We can compel the over-active epidermis to rest by these means

We find evidence of increase of the secretive energy of both the sebaceous and sweat glands, and in this way also is the quietude of the skin disturbed, whatever theory of seborrhœa be accepted, it is certain that either in the concrete or oily form it acts as an irritant. Our efforts to obtain rest in this instance must go further than merely removing the accumulation of oil and degenerated epidemic scales.

The anæmia must be corrected by toning up the soil, not merely by iron to enrich the blood, by mercury to neutralise the syphilitic virus if present, but by ergot or ichthyol to constrict the vessels of the peri-glandular plexuses. Locally sulphur which has a peculiar and specific desiccating effect, quite apart from any presumed anti-parasitic one, and the astringent action of cold water are our most reliable remedies.

Hyperhydrosis weakens the tissues by converting the integument into a swamp, here we employ small quantities of salicylic acid, 3 per cent. in a bland pulverulent medium as powdered talc.

Another state in which our efforts must be directed to procure rest for the skin is that in which it is necessary to modify abnormal perversions of functional activity. This

is greatly [illegible] by some [illegible] of [illegible], [illegible] the commonest [illegible]. We may select as examples those forms which are especially aggressive at the two extremes of life. The age of the patient has a special bearing on the methods which must be adopted for its repression. One of the most troublesome of the neuroses that affects infants and young children, especially of the poorer classes, is lichen urticatus or urticaria papulosa. The skin in those affected, almost always exhibits evidence of malnutrition. Thus it is usually dry, thin, and anæmic. All faults in feeding and hygienic surrounding must be removed and instead of the strong carbolic soap often employed, we prescribe either merely ablutions with gruel or with a superfatted napthol soap; cotton or flannelette to be worn next the skin; accompanied by the inunction of glycerine of starch made with double the quantity of glycerine of that in the Pharmacopœia, medicated by the addition of naphthol and camphor, tumenol or resorcin. Sometimes an oil containing menthol and a little lanoline or adeps lanæ proves more grateful. Internally antipyrin in small doses at night, is valuable in promoting sleep.

In old age also the skin is apt to be thin and anæmic, the result of atrophy, here the sudorific action of pilocarpin can be brought into play to calm the pruritus, if this be repeated night after night for a couple of weeks, a great amelioration will certainly, sometimes a permanent cure be obtained. Glycerine of starch and superfatted naphthol soap will also be useful in addition, with warm under clothing of the softest wool.

Of the inflammatory affections which necessarily call for rest we naturally turn to eczema as an example; its relation to catarrhal processes cannot be overlooked. It does not matter whether we regard it as a parasitic catarrh or not, provided we bear in mind that it is a catarrh. As in bronchitis we endeavour to sooth by keeping the air of the apartment moist and warm. So in eczema we envelop the raw denuded leeting surface with a soft, bland, aseptic medium, a starch jelly with which is combined a proportion of boric acid.

In general dusting with a weak, salicylic acid powder, or painting with nitrate of silver dissolved in sweet spirits of nitre before renewing the above poultice, is sufficient to destroy micro-organisms where the boric acid fails.

In order to overcome the infiltration or induration of the skin which accompanies eczema and which persists as a leathery condition after the surface has healed, it is recommended to envelop the surface closely in strips of the salicylic soap plasters which PICK of Prague has introduced. The plaster is worn for several days up to a week. There should be no resin in it.

In some cases which may present the seborrhœic type, which may implicate the cheeks and seem to have had their origin in seborrhœa of the scalp, or eczema of the margins of the eyelids, the above treatment fails, and UNNA'S plan of salve muslins is recommended; a porous cloth carrying on and in its substance a thick stratum of an ointment of such hardness and consistence that it just melts slightly at the heat of the body.

When pieces of say this zinc ichthyol salve muslin are applied to the skin of the face, we obtain an amount of rest attainable by no other means with which I am acquainted.

Where eczema is already extensive, where large areas of the trunk or the lower limbs are involved, or threaten to become so, confinement to bed is imperative.

It sometimes happens that a case of eczema confined to bed and carefully treated, ceases to improve after a certain time. When this is the case a cure not infrequently follows an entire change, the patient is sent home and allowed to follow his ordinary pursuits.

In acne the question of how best to procure repose for the skin is more complex; the worst examples of acne are to be encountered in these subjects, whose skins are coarse, thick, muddy, and pale. Treatment in acne has several sides. On one hand we must endeavour to thin down the abnormally thick epidermis.

This is effected by various methods in accordance with the degree and the resistancy of the integument.

Sometimes ointments which contain salicylic acid, soap and sulphur, as in the admirable one of BOBEK, or it may be necessary to have recourse to the resorcin desquamating paste suggested by UNNA or to the application of his resorcin or salicylate plaster muslins.

At the same time the sulphur nullifies the pus-determining properties of the micro-organisms.

THE ROLE OF PARASITES.

The inquiry as to how to secure rest when parasitic agencies are to blame has been left to the last. At the present moment the trend of investigation is to try and find an organism which can be credited with the causation of every cutaneous disease, the effort is a laudable one, for in due time it will demonstrate which ailments are and which are not parasitic in origin. A man of 31 consulted me for a too copious fall of hair which he feared would occasion baldness. His hair was dark and plentiful, but there was a considerable amount of seborrhœa in the form of branny greasy scales, distributed pretty uniformly over the scalp. By the use of a salicylic and sulphur pomade the seborrhœa had entirely disappeared in the course of a month, but the hair still fell out too abundantly.

If SABORAND is correct that the bacillus he has discovered is the cause of seborrhœa and of seborrhœic alopecia, how can we explain the complete cure of the seborrhœa in this case, the healthy state of the scalp, and yet the persistence of the loss of hair!

There is an entire consensus of opinion that erysipelas regarded as a medical disease is caused by the streptococcus of FEHLEISEN giving rise to spreading inflammation of the skin, or mucous membrane, having contagious characters

Though contitutional symptoms manifest themselves almost consecutively with the onset of the disease, it is for a time a surface ailment. And there is one remedy at least which can in the large majority of cases strangle it, so to speak, at its birth, if used promptly and efficiently. This is ichthyol. It should be thickly smeared over the inflamed area as a 25% ointment made up with prepared chalk and vaseline and covered with a layer of cotton wool.

The treatment of pityriasis versicolor is well enough established but the prevention of recurrences is scarcely

such a simple manner. I have been in the habit of directing my patients to continue (after cure) to wash for a week or two with a resorcin and salicylic acid soap. In this way a permanent cure has resulted.

TYPHOID FEVER IN BELFAST.

TEMPORA mutantur, and fashionable theories also? At last we have a widespread and destructive epidemic of typhoid fever in which the old scapegoat, the water supply, is not at once set down as the medium of infection and communication?

It will be remembered that last autumn Belfast suffered from an epidemic of typhoid, the present one is however more serious as the following figures from the *British Medical Journal* show :—

WEEK ENDING			1897.
June 25th 1898	... 34 cases notified	...	28 cases
July 2nd "	... 66 "	...	56 "
" 9th "	... 57 "	...	44 "
" 16th "	... 69 "	...	43 "
" 23rd "	... 81 "	...	37 "
" 30th "	... 98 "	...	59 "
August 6th "	... 195 "	...	45 "
" 13th "	... 143 "	...	61 "

If ever a city reaped the harvest of its neglect of all sanitary rules, the city of Belfast is assuredly doing so now. Anything more disgraceful than the revelations made before a committee which sat some five years ago to inquire into Belfast sanitation, it would be impossible to imagine.

Houses of the worst possible description, entirely devoid of all sanitary appliances or means of cleansing, were being run up at an almost unprecedented rate. But the worst feature of all to our minds was the nature of the sites on which these houses were built. There is plenty of low lying slob land about Belfast, totally undrained, where in wet weather the subsoil water lies level with the ground, and the falling rain turns the inequalities of the surface into a series of unhealthy puddles.

It is on soil of this description that a large portion of the dwellings of the labouring classes are erected, and it is on ground of this kind, when there is any open space left, that the children of the poor collect and play about

A large portion of such dwellings are also erected upon made soils in which, according to the evidence given before the Committee above referred to, decaying organic and even fæcal matter could be identified.

It is to the absence of building laws, or to their total neglect, by interested and unscrupulous persons that we would attribute the unhappy notoriety for unhealthiness which Belfast has gained for itself.

On this point the *British Medical Journal* says :—"In the opinion of a large majority of those most competent to judge, the pollution of the subsoil with filth and the imperfect removal of refuse matters, is the chief cause of the undue prevalence of typhoid fever in Belfast It is a cause always at work and fully adequate for the production of the state of things now existing. Closely associated with this cause, indeed partly identical with it, must be put the erection of cheap houses upon insanitary sites, and destitute of adequate sanitary arrangements. This has prevailed to a really frightful extent in Belfast, and the city is now reaping the results of the criminal neglect of its corporation, health officers, and town surveyors in past years. Many houses of poorer class have no watercloseets and no means of removing filth by any backyard or rear entrance."

According to this Journal there are three possible causes (of the epidemic) which demand the most thorough and careful investigation.

1. The water supply.

2. The new main drainage system, not long ago completed at a cost of £300,000.

3. The pollution of the subsoil with filth, and the imperfect removal of refuse matters.

To these we would add a fourth, *the level of the subsoil water*, for although it may justly be held that a saturated soil without specific contamination cannot give rise to typhoid fever, yet we cannot say to what extent it may favour the production of the specific organism ; while without doubt it acts prejudicially upon the health of the community and lowers their vitality.

For these reasons we think it is worthy of being investigated separately and it may be noticed that Mr. ADAMS, the Health Officer of Maidstone found a close connection between rainfall and subsoil water level and the course of the Maidstone epidemic.

Regarding the water supply the *British Medical Journal* says —"But it must be admitted that all efforts to connect previous epidemics of typhoid fever in Belfast with defects in the water supply have failed. It has never been shown that the parts of the town supplied by the Woodburn water suffer more than those supplied by the Stoneyford water, or *vice versa*, nor have epidemics in the city ever been proved to be traceable to any temporary pollution of either source of supply."

The same journal further remarks on the new main drainage scheme.

"It is a curious and disquieting fact that since Belfast completed an elaborate and costly system of main drainage typhoid fever has been decidedly more prevalent than it was previously"

This system as we have seen cost £300,000. Large schemes of this kind have an extraordinary attraction for the present day Sanitarian.

Some how or other they do not always hit the mark, which shows that the preliminary investigation was not searching enough, and that our knowledge of sanitation on the large scale is mainly empirical.

On this subject the *Public Health Engineer* further adds: "Those of our readers who will remember the admirable articles contributed to *The Public Health Engineer*, by Mr HARRIS REEVES, on the Maidstone Epidemic from a Sewer Gas Point of View, and the articles of Mr. BROWN on Sewer Ventilation, will possibly have no difficulty in accounting for this "curious and disquieting fact." We shall not be surprised to hear that sewer gas has a good deal to do with the mystery."

CURRENT EVENTS AND NEWS.

"OFFICIAL PLAGUE" IN CALCUTTA. WAS IT A FRAUD?

We quote from our excellent weekly contemporary *The Saturday Journal* of Calcutta :—

"The plague has left Calcutta, and the unpleasant controversies that have arisen in connection with it may very well be dropped. There is, however, one indirect issue arising out of the wicked charge levied against the Government of manufacturing plague, that I would like to draw attention to. The statement weakened the hands of the authorities in dealing with the natives, large numbers of whom, already violently opposed to the plague regulations, came to believe that the Government was acting merely from a capricious desire to annoy. Now is it, or is it not, the duty of every European in this country, or all who have white blood in their veins, to rally in times of danger to the support of the Government? A weekly medical paper, published in Calcutta, and circulating among Anglo-Indians, has the following headings to the notification declaring Calcutta no longer infected "No More Official Plague in Calcutta. The Governor's Declaration that the City is Free. Official Plague Manufactory still to be kept open" One of the first claims of the Anglo-Indian and Eurasian community to the consideration of the Government, has been its steadfast loyalty to the Crown. I hope then that the leaders of that community in Calcutta and elsewhere will come forward to publicly disassociate themselves from these persistent efforts to charge the Government with lying and fraud, and to play into the hands of the most seditious and disaffected sections of the native press'

THE CALCUTTA PLAGUE AND ANGLO-INDIAN LOYALTY

THE above comment in the *Saturday Journal* (which is the offspring of the Calcutta *Englishman* by the closest marital relationship), raises two important questions (1) the state diagnosis of Calcutta Plague and the government measures for dealing with the natives and (2) false and true loyalty to the Government

We have consistently maintained that Calcutta has not had a visitation of *true* plague We say "true" plague because every standard work on Scientific Medicine defines plague as "a contagious epidemic disease, and this 'Risley Plague' (there is no other name for it) has been neither contagious nor epidemic It is a flagrant contradiction of terms to style the Calcutta Official Plague, 'plague' at all Official opinion on this matter was that *true* plague was present in Calcutta Judged by the clinical and epidemiological manifestations of the disease with which Calcutta was afflicted, Mr. RISLEY, one of the Secretaries to the Bengal Government, and a few of his State paid medical advisers, upheld his opinion, that our city was plague infected Their prophecies regarding its spread have been as false as Balaam's, and the opinion of the medical experts is so utterly disgraced and confounded, that it does not find practical or logical support from either the clinical or the meteorological behaviour of the strange febrile disorder which they terrifyingly hailed as THE PLAGUE So that from start to finish, this scare, created and fostered by State-officials, has proved itself to be a huge unmitigated medical fraud It is no disloyalty to speak the truth fearlessly even though such expressions challenge the policy of the Government and lay bare its weakness and rottenness. It is false loyalty, disastrous alike in its duplicity and in its consequences, to betray the Government into a course of action that is positively dangerous both politically and financially, thereby [illegible] and wrecking the [illegible] and prestige of the rulers. We maintain that the *Englishman* and the Bengal Plague Commission are chiefly responsible, under the misguiding influence of official mouthed men, who simply said what their paymasters bid them, that the whole commercial machinery of the metropolis was dislocated, its trade utterly paralysed and the domestic peace and happiness of its European and Indian inhabitants wantonly disturbed for almost half a year. We are second to none in our loyalty to the Government. The British Government of India is the greatest of Providential blessings in the destiny of the vast Oriental Empire, but while admitting that this is so, we as frankly and as fearlessly declare that the policy of the Indian Government is not only misguided and wrong in its effect on the peace and welfare of the domiciled European and Indian communities, but it is from a sense of deep and earnest loyalty, that we warn the Government that its treatment of these communities, more especially the domiciled Anglo-Indian community, has created the intensest feelings of disaffection towards such policy, and it behoves a government, if actuated by a desire to deal righteously and impartially with its subjects to disperse and eradicate the causes of such disaffection, as to do otherwise is to be unrighteous, unjust and impolitic.

HOW "PROFESSORS" ARE MADE IN INDIA.

WHEN "General" O'BRIEN shook the dust of India off his shoes and bid farewell to the old fashioned operation theatre and tools of the Calcutta Medical College Hospital, there was an uncomfortable stir in the dove-cot of the Bengal Secretariat. Old women and young women were busy pulling wires, and from all accounts there seemed to be a pretty hard nut to crack, in finding a successor to the genial and courteous sawbones who had just gone back to the "Green Isle." Not that it was difficult to find a *suitable* and fully qualified successor to O'BRIEN To be "suitable and qualified" counts for nothing with either the Imperial or Provincial Governments of India There were a few competent surgeons and anatomists of the Indian Medical Service quite ready and at hand, who had a legitimate claim to the Professorship of Surgery and the First Surgeoncy of the Calcutta Medical College and Hospital, but being bent on providing for "Dowb", a job had to be perpetrated and perpetrated it was. The exigencies of the occasion were peculiar Dr BOVILL a Senior Civil Surgeon of the I M S and a Colonel to boot, was vegetating at Darjiling His term of office in the Sanitarium had expired and therefore Dr BOVILL must be found with a post suitable to his rank and seniority Howrah was the place but unfortunately in Howrah was Dr R D MURRAY What was to be done with MURRAY? Make him "Professor' of Surgery was the reply and so the conundrum was solved, BOVILL came to Howrah and MURRAY became a "professor" It was all so natural to the legitimate proclivities of the Bengal Secretariat They manufacture professors by a patent process, a thoroughly secret invention, the only material needed being a workable Secretary to a Government and an I M S officer for whom the Secretary longs to do a good turn The elastic mental calibre of the I M S man with his hydra headed intellectual and scientific capacities, is a marvel to dwell upon The whole phenomenon is ludicrous in the extreme Yet so it is, for we find an I.M.S. man who is only a good general practitioner, who has not the smallest pretension to being called a surgeon, who never dreamed of teaching surgical anatomy nor general and operative surgery, pitchforked into a professorship in surgery and a consulting surgeoncy

That Dr MURRAY'S appointment has stirred up the strongest indignation in Calcutta goes without saying, but that the Director-General of the Indian Medical Service, will

[illegible] in [illegible] and [illegible] Calcutta University [illegible] for the Calcutta Medical College Hospital.

A CALCUTTA PROFESSOR'S QUALIFICATIONS.

A "Major" of the Indian Medical Service writes:—"You are somewhat in error about Surgeon-Major Harris' qualifications. He was educated at St. George's Hospital, London, and is L.R.C.P. London 1877, M.R.C.S. England 1877, not L.R.C.P. Edinburgh &c." On turning to the British Medical Register, we find that George Francis Angelo Harris is registered M.R.C.S. England, 14th September 1877 and L.R.C.P. London 1877 and is further registered as belonging to the "Indian Medical Department, Madras." While sufficiently apologising for the error that crept into our columns, we note that Dr. Harris has not attempted to correct the mistake in the British Medical Register anent his provincial connection, as he belongs to Bengal and not to Madras. With reference to the Scotch and English "L.R.C.P." there is no difference whatever, since both examinations are conducted on precisely similar lines in accordance with the Regulations of the General Medical Council. Neither Corporation can overstep the demands of these regulations, so that the respective merits of the L.R.C.P. Edinburgh and the L.R.C.P. London, ought to be equal. But whether Dr. Harris possesses one or both of these qualifications, he ought under the requirements of the General Medical Council to be a Fellow of the Royal College of Physicians or a Doctor of Medicine, before he can be considered qualified to be a "professor" of Medicine or First Physician to an educational hospital, and if his signature as a Lecturer or Clinical Teacher is to be respected and recognised on the Certificates of the Calcutta University by the General Medical Council. In India "Professors," are *manufactured* by Government *Gazette* Notifications. In a single night a member of the I.M.S. can be converted into a "professor" of any "Science" of which he may be *almost* as utterly ignorant as an unborn babe. Things are very *different* in *free* countries, but India is not free. She is enslaved by officialism, and the people of the country are compelled to submit to any form of oppression if it suits the whims and caprices of a Provincial Secretariat to issue an "edict" in the form of a *Gazette* notification. But abuses, such as the one we have exposed in regard to medical collegiate appointments, must invitably be abolished if they clash with statutes that are controlled by the Corporations of Great Britain. So let us hope that a little wholesome agitation will put an end to bogus professors and bogus consultants, for the honor of our profession in this land.

THE SUBORDINATION OF THE MEDICAL ADMINISTRATION OF INDIA TO THE SECRETARIATS.

AN Indian Civilian, the present day "competition-wallah" is reckoned as being fit for anything. He "bosses" everything in India. He can be President or Secretary of a Committee of experts sitting on Finance, Railways, Telegraphs, Surveys, Marine, Astronomy, Agriculture, or any other branch of practical science. He can write books on Plague from a purely medical point of view, he can dictate the entire medical and sanitary arrangements of a province without the smallest interference of the Sanitary and Medical experts in his administration! He can visit hospitals and dispensaries and even takes upon himself to prescribe patent medicines and patent dietary for their inmates. [illegible] Indian Civil Service [illegible] the confidence rightly and [illegible] him! We now find Mr. J. T. [illegible] Mr. A. Cumine, C.S. of Bombay [illegible] experts" in the recently formed [illegible] Inquiry in India. These two gentlemen [illegible] direct the operations of this Commission (just as the former gentleman "managed" the Royal [illegible] Commission lately) but they are *to take all notes* of the investigations of this Committee. By such "strokes" [illegible] the Secretariats "rule" India, and the Medical Administration bows silent and ignominious consent to such a disgraceful [illegible]ing of the medical profession. Verily to be a Director-General or an Inspector-General under such circumstances signifies self abasement. To nod in dumb assent to the obnoxious and disastrous meddling in medical matters by high civil non-medical officials, is to strangle for ever the independence and prestige of the Indian Medical Service and to lower the whole tone of the medical profession in this country.

THE "RECORD" TO BE A WEEKLY JOURNAL. PRIZES TO BE GIVEN FOR ARTICLES AND REPORTS.

THE Notification in our last number requesting a further expression of opinion from our subscribers regarding the conversion of this journal into a WEEKLY, has met with the most gratifying results. We heartly thank the many of our friends who have responded to our appeal with the most flattering encomiums. It is very helpful and encouraging in an uphill fight for the local profession against old-fashioned insular prejudices and jealously guarded vested interests, to find the rank and file of the medical profession in India, almost with one voice, spontaneously supporting the enlarging enterprise of the *Indian Medical Record*, with the heartiest expressions of appreciation and gratefulness for its efforts in safeguarding and advancing their interests. We are more than pleased with this "vote of confidence," and we shall do our part loyally, facing all the financial risks that such a change involves, and what is more, by accepting the gigantic mental and physical labor which the introduction and continued maintainance of a weekly medical paper necessarily demands. Our readers may now take it for granted that the *Record* will appear from the 1st January 1899 as the Weekly organ of the local profession. This change will involve a doubling of the subscription rates, *viz* :—Rs. 36 for Commissioned Medical Officers and doctors in good private practice, Rs. 18 for Civil and Military Assistant Surgeons, Medical Missionaries and doctors in moderate medical practice, and Rs 12 for Military or Civil Hospital Assistants and Medical Students. When it is seen that an independent Weekly Medical Journal can be obtained in a country like India for the modest monthly sum of Rs. 3, 2 and 1 respectively by the various grades of the profession, the monetary part of the transaction will be found to fit into the means of all. In order to encourage literary work, the following prizes will be given to every contributor :—Rs. 10 to 16 for each accepted Original Article, Rs. 5 to 10 for each accepted Clinical Report. The contributor must be a subscriber to the *Record*.

INDIAN MEDICAL SERVICE APPOINTMENTS. WISE AND OTHERWISE.

HOW one laments the unfortunate fate of the I.M.S. man who wants a good job from the Secretariat and who has not either "domestic" interest nor a pretty wife to do the trick for him. "Domestic" interest goes [illegible] length, but letting a handsome wife do [illegible]

[illegible] ... with a [illegible] ... [illegible] flirtations ... wants a [illegible] berth, it [illegible] ... for the post or not, a [illegible] ... with all its [illegible] ... frigidly termed "government" in this country [illegible] for her spouse the much coveted promotion. We need some righteous administrator to tear [illegible] veil that hides the iniquities of British rule in [illegible] to purge these Augean stables of their hoary headed [illegible].

SIR CHARLES CAMERON ON TYPHOID FEVER IN CONNECTION WITH SOIL CONTAMINATION.

The following is extracted from an address on the Public Health of Dublin. Delivered at the Congress of Public Health, which was held in that city in August last.

The mortality caused by typhoid fever is greater in Dublin than in nearly every other town in the United Kingdom. In Ireland Belfast alone has a higher death-rate from this disease. On the other hand, diphtheria is very much less fatal in Dublin than in the English towns. I have come to the conclusion that both diseases have, to a great extent, a telluric origin; they seem to be in some way intimately connected with the soil. If, then, we take both and regard them as semi-malarial, Dublin will not occupy a worse position than the English towns. The deaths from enteric fever and diphtheria combined were in 1887-1896 in the ratio of 55 per 100,000 persons living in Dublin and 60 per 100,000 in London. In 1897 the rate was 54 in Dublin and 64 in London. In 1896 the mean diphtheria rate alone was 50 per 100,000 in London; Wales, Essex, Kent, and Worcestershire; in Dublin diphtheria and enteric fever combined caused 44 deaths per 100,000 inhabitants. Dublin has a supply of water of great purity; its street sewers can compare favourably with those of other towns; and the plumbers' work in its houses is as good as it is in the great majority of towns. Why, then, should there be so much enteric fever in Dublin? I have long been of opinion that the micro-organisms of this disease have an abiding place in its soils, which for so long a period were polluted by leakage from the filth receptacles and defective sewers of former times. I believe that, under certain conditions to which I have often referred in papers and reports, these malignant organisms escape from the soil into the atmosphere, from which they pass through various media into the bodies of human beings.

That there is a connexion between enteric fever and the soil is shown by the results of observations of the distribution of more than 4000 cases of the disease in Dublin. Where gravel forms the site of streets there is far more typhoid fever than in districts which rest upon the stiff boulder clay. This is clearly owing to the fact that the bacillus typhosus which is aerobic—that is, requires oxygen—can get it more freely in the loose gravels than in the stiff clays. In the gravel, too, there is a much greater space for the development and movement of the bacilli. It has long been assumed that the soil of Dublin lying nearest to the river was always water-logged, and it was suggested that the drainage of this soil and its subsoil might lessen the prevalence of enteric fever. A few years ago I caused a number of wells to be sunk in the ground near the river and at the higher parts of the city. Long-continued observations of the height of the ground or subsoil water in those wells proved that in the [illegible] ... feet of the surface of the ground, whilst near the river the water remained [illegible] ... 50 to 70 feet [illegible] ... should be only [illegible] ... ground water, whilst the low-lying districts have from [illegible] feet of dry soil. The explanation is, after all, [illegible]. The low-lying districts are on gravel, which permits the rain to sink into it very deeply, whilst the high grounds are stiff clays, which retain the water. When a soil becomes infected by the materies morbi of typhoid fever it is difficult to eradicate it. The recent experiments of Dr. SIDNEY MARTIN, recorded in the supplement to the annual report of the English Local Government Board for 1896-97, show that typhoid bacilli put into soil multiply in it and ramify throughout it; at the expiration of 105 days they were quite lively. These experiments and the investigations of other scientists, especially those of Dr. ROBERTSON, clearly prove that typhoid bacilli can live and multiply in soils containing organic matter. I feel satisfied that they are to be found in the soils of Dublin and other places. Now that the pollution of the soil in Dublin has almost ceased we may expect that the *pabulum* of the typhoid organism will gradually be used up, with consequent diminution of the amount of enteric fever.

ADDRESS IN PSYCHOLOGY AT THE MEETING OF THE BRITISH MEDICAL ASSOCIATION.

SAYS the *British Medical Journal* :—In dwelling on the importance of the early treatment of insanity, Sir JOHN BATTY TUKE reiterated the oft-repeated opinion of all competent observers. Statistics, it is pointed out, shew that the increase of chronic insanity occurs among the poorer classes and not amongst the rich. This is rightly ascribed to the advantages which the well-to-do possess in being able to obtain ample treatment in the early stages. Many forms of insanity, indeed, should rank largely as preventable diseases; and the prevention, it is now fairly obvious, can only come from treatment in the incipient pre-asylum stage of the disorder.

"There can be little doubt that the legal hindrances to treatment in England to which Sir JOHN BATTY TUKE alluded constitute one of the gravest causes of the increase of insanity. Nearly every practitioner can quote cases in which, owing to this cause, he has had to wait until the patient was sufficiently insane to be certified, until in fact the patient had reached a stage of his disorder in which the hope of cure was considerably reduced.

"Red-tape restraint" is without doubt the greatest hindrance to the preventive and even curative treatment of the insane both before and after admission to asylums. The time has arrived when the right of the insane to proper care and treatment should be asserted in opposition to the "liberty of the subject theory, by which so much harm has been inflicted on the lunatic with such terrible results.

"The increase or accumulation of the insane in our asylums is becoming so grievous a burden on the community at large that the popular mind is ripe to consider seriously and practically whether there must not be something wrong in a system which results in producing such appalling results, in spite of an expenditure that is prodigious and institutions that are colossal.

"The rate of increase of the insane, of asylums for their care and of expenditure on this account, is indeed giving every ratepayer of intelligence grave reason for thought. The most striking anomaly in the whole thing is that the Lord CHANCELLOR is the head of this vast machinery for the treatment of the insane. Hence it is that the perennial farce of the inspection of lunatics and of asylums by bar-

[illegible] the first and [illegible] the [illegible] and all [illegible] the insane, the [illegible] under the [illegible] Commission.

The [illegible] of a Commission composed of alienist [illegible] with lawyers and Poor-law adminis- [illegible] Sir John Batty Tuke is therefore [illegible]. Lunatics are accumulating at a rate [illegible] and [illegible] all connected with them, and it is [illegible] that the most exhaustive investigation should be [illegible] the causes of the accumulation and a conclusion arrived at as to the best system that can be devised for the treatment and prevention of insanity.

THE LONDON "NURSING RECORD" ON ANGLO-INDIAN NURSES.

Says our above named contemporary :—"The *Indian Medical Record* is taking up the cudgels in defence of the Anglo-Indian Nurse, and asserts that injustice is done her by the importation of British Nurses for plague duty. 'We are quite of opinion that if Indian trained nurses are to be found in sufficient numbers, well qualified to undertake the work of plague nursing, their claims to appointment deserve every consideration, but as a matter of fact, the lack of efficient nursing, and the condition of the plague hospitals before English nurses bravely went, at the risk of their lives, to give skilled assistance to the plague stricken patients is notorious.

"Our contemporary states that both doctors and nurses could be procured in India in any number required. We may reasonably enquire, therefore, why they were *not* required. Mr. James Cantlie, in an article in the *British Medical Journal* in February of last year, stated that "in no disease does one get such immediate results from careful and prompt medical treatment, and as a direct outcome of watchful nursing, as in plague," that each two patients required an attendant to themselves if the utmost good was to be done, and that "a liberal supply of doctors and nurses was essential if the lives of the plague-stricken were to be saved." Were nurses in anything like this proportion provided for the plague patients.

"In the face of the published facts as to the condition of the plague hospitals, it is difficult to accept the statement of the [illegible] the Anglo-Indian Association, that "the importation of British medical and nursing labor for plague duties was absolutely unnecessary." If indeed this was the case, then the condition of the plague hospitals was, if possible, even more disgraceful than we reported."

"It is reported by our contemporary that two English nurses sent out to Calcutta for plague duty "with all the bloom of their English complexions, were hastily sent on to Darjeeling, to summer there, as it was feared they might lose their health and their lovely complexions. These nurses are on the "employed list," and yet are utterly unemployed." This statement, if uncontradicted, proves, not that nurses are not required, but the importance of selecting the right stamp of woman."

[illegible] in India [illegible] proved [illegible] of the disease, except, perhaps [illegible] success is negative. Our present [illegible] to unlearn what we thought [illegible] plague by finding our old-fashioned [illegible] face of recently discovered [illegible] perience. What has been learned is of the [illegible] use, though the knowledge is [illegible] may be summed up thus :—

1. We have learned that a plague [illegible] spreading disease, which possesses a natural [illegible] which is made up of a series of several annual [illegible] demics.

2. That these annually recurring epidemics [illegible] periods of natural duration, and that the cycle of each epidemic is completed in or within a year.

3. That each epidemic divides itself into four stages of rise, spread, decline, and inactivity, or quiescence.

4. In a large city in which the disease is fully developed, all known or tried measures of suppression or extinction are useless in each and every stage of the disease.

5. That insanitary and over-crowded houses attract and maintain infection, and cause an increased mortality.

6. That large insanitary districts become permanent plague centres, from which infection is spread in all directions to other districts.

7. That Europeans are almost immune from plague, whether living in the docks, in ships in the stream, or in houses in the native town.

8. That the severity of the mortality from plague falls upon the Hindoo population, as the following table of the Race and Caste mortality as recorded in the last epidemic will show :—

Per 1,000 per annum.

Europeans	... 1·4	Low-caste Hindoos...	51·4
Jews ...	... 15·9	Brahmins ...	54·2
Eurasians	... 21·2	Caste Hindoos ...	54·8
Mahomedans	... 23·6	Lingayets ...	71·4
Native Christians	... 28·1	Bhatias ...	74·0
Parsees	... 28·6	Jains	102·2

All that has been said in this letter about plague and plague experience refers to Bombay.

The conclusions to be arrived at from our previous years of experience, and from our present corrected knowledge, about plague are, that when plague is established in a large [illegible] city it comes to stay, and cannot be extinguished by any means at present known to us. It follows, therefore, that all so-called preventive measures are chimerical. In such a city as Bombay the mortality of each plague epidemic may be forecasted with greater accuracy than can the [illegible] a cholera epidemic. What can then be [illegible] measures of suppression or extinction? Does not the [illegible] completely discredit them!

PLAGUE [illegible]

[illegible]

[illegible] mortality, by [illegible] (published for [illegible] and recorded deaths and mortality [illegible] the deaths from plague. [illegible] during the first 13 weeks of the present [illegible]

The annual return is evidently to afford a test as to whether the increased mortality returned under pulmonary diseases is really due to undiagnosed plague.

Week Ending.	Recorded plague mortality.	Increased weekly mortality from phthisis and lung disease in excess of the average added to recorded plague mortality.	Normal mortality of previous five years deducted from total mortality to arrive at a nearly correct plague mortality.
5th July ...	38	45	38
12th „ ...	53	71	53
19th „ ...	63	72	63
26th „ ...	69	69	69
2nd Aug. ...	62	73	62
9th „ ...	85	91	85
16th „ ...	101	129	101
23rd „ ..	163	217	163
30th „ ...	157	241	207
6th Sept. ...	168	222	295
13th „ ...	175	227	234
20th „ ...	126	163	136
27th „ ...	150	232	270
Total ..	1,410	1,841	1,776

PUERPERAL MORTALITY. REAL, SUPPOSED AND IDEAL.

THE *British Medical Journal* publishes a letter from Mrs GARRETT ANDERSON which revives an old question and the ability with which she restates what seems to her the true state of the case will be recognised

Mr. T. A. COGHLAN read before the Royal Statistical Society on 21st June last, an able paper on deaths in childbirth, showing a mortality of about 1 in 142 The late Dr. M. C. CLEMOW of Dublin, writing in 1869 estimated the same rate to be about 1 in 128. Mathews Duncan in 1871 estimated the following: "Not fewer than 1 in every 120 women delivered at or near the full time die within the four weeks of childbirth."

Mrs. Anderson thinks that this is incorrect. She has collected figures from various outdoor and indoor maternities, which give a death-rate, when all deductions are made, of 1 in 1,000. She thinks that the risk to a lying-in woman depends not upon the average puerperal death-rate but upon the death-rate [illegible] those who surround her."

[illegible] Mrs. Garrett Anderson's quotes in support [illegible] mortalities, and [illegible] is only in an [illegible]

(1) The test, which has actually produced, [illegible] suppressed, where statements are made in [illegible] by those who promulgate them, but which [illegible] without reservations or corrections. (2) The [illegible] what ought to be attained always, but which is not.

A GRAVE SCANDAL.

WE take the following from the *Medical Times & Hospital Gazette* :—The death of a woman [illegible] with the intention of procuring abortion, reported [illegible] issue, led to remarks on the prevalence of such [illegible] the dangers thereof. If the law, as it stands at [illegible] not sufficient to prevent the advertising and sale of drugs for removing "obstructions," it is matter of urgency to alter it. Why is it that such a difference is made between cases where death ensues after abortion brought on by [illegible] methods, and those where abortion results from the administration of drugs? Drugs of the most potent kind are openly advertised, and used to bring on abortion, and there can be no doubt that deaths frequently result. Surely the makers of these drugs are as much guilty of manslaughter in such cases as are the doctors who bring on abortion by the use of instruments. We are heartily glad to have medical abortionists removed from our ranks; but it is a great scandal that what is punished as a grave crime in a doctor, is allowed in a slightly different form to be perpetrated by unqualified persons We have shown long ago that persons styling themselves "Madam Frain" sell medicines capable of producing abortion and consequent death. Must we wait for deaths to be discovered before stopping this trade? And when death results, is to be merely regarded as a "warning to the public"

PLAGUE CARRIERS.

Rois and Rayyet says :—"Simla is not at all healthy at the present moment. The Simla Correspondent of the *Pioneer* writes on the 3rd October :

"There have been several cases of illness lately in the station, the patients suffering from an exhausting kind of malarious fever which leaves them very weak. The Commander-in-Chief is among those who are in the doctor's hands and His Excellency is still confined to his room, though the fever seems to have abated. No special cause can be assigned for the prevalence of malaria, but the changes of temperature now in the 24 hours are very great, the sun being still powerful in the day while cold winds from the snows set in at night. Autumn has set in; our last thunderstorm a few days ago being, the last we have seen of the rains."

"We feared Mr. Risley would take the plague to Simla. His departure from Calcutta has been followed by the death of plague in the city. It seems the [illegible] malaria of the Lower Provinces is travelling the pestilence up in the hills. We may now hope for drastic measures to kill malaria, which is more deadly, than is commonly known, than plague."

[illegible]

"I have read [illegible] with very considerable gratification [illegible] Indian Physicians may well feel proud [illegible] and surprised to see in the appendix [illegible] presented to the House of [illegible] it seems hardly credible that such a [illegible] treatment was applied to a [illegible] subjects as deserving as any other [illegible] because the skin of their mothers [illegible] was dark. I presume that this vile [illegible] has been remedied long ago; otherwise, alas! [illegible] the British Lion—who, along with his resonant roar, [illegible] of very skulking habits when he is allowed his own way."

THE MALARIA COMMISSION.

THE Scientific Commission, appointed jointly by the Colonial Office and the Royal Society to investigate the mode of dissemination of malaria with a view to devising means for preventing the terrible mortality which now takes place among Europeans resident in tropical and subtropical climates, has now been nominated. It will consist of Dr. C. W. DANIELS, of the Colonial Medical Service, British Guiana, who is well known for the many valuable contributions which he has made to tropical medicine; Dr. J. W. W. STEPHENS, formerly Lawrence Student in Pathology and Bacteriology at St. Bartholomew's Hospital, and the author of the essay on the Bacteriology of Asiatic Cholera in ALLBUTT'S *System of Medicine*; and Dr. R. S. CHRISTOPHERS, of University College, Liverpool. Dr. DANIELS will proceed at first to Calcutta, where he will acquaint himself practically with the remarkable work which Surgeon-Major ROSS, of the Indian Medical Service, is carrying on into the relation of mosquitos to the dissemination of malaria. Drs. STEPHENS and CHRISTOPHERS will at first proceed to Rome, where they will spend some time in studying malaria. Subsequently the Commissioners will meet together at Blantyre, British Central Africa.

SEDITIOUS EDITION.

THE *Indian Daily News* writes:—"THE PROTEST by the Europeans at Rangoon against the treatment of the Province by the Viceroy, or rather by several Viceroys of India, because no personal element comes into this matter, has, we see, been denounced as seditious and rebellious by the President, who there seems a host of local Mr. RHODES. Mr. RHODES, when he wanted to have his own way in South Africa recently, called everyone who opposed him disloyal and seditious, and was rather severely taken to task, even by the *Times*, because it is unpleasant, to say the least of it, for one's neighbour to get up and assume a monopoly of loyalty. We now learn on the high authority of the President of the Rangoon Municipality that to decline to subscribe for triumphal arches and red cloth and luncheons is sedition, at least so says the report. We are in fact gradually getting to the bottom of the meaning of that word. We know that refusing to believe in inoculations is sedition, refusing to put implicit confidence in M. HAFFKINE is sedition, to contradict Dr. COOKE, D.Ph., is sedition and to remonstrate against the fumblings of some members of the Calcutta Chamber of Commerce is disloyal, and to say that railways want mending is a blasphemous libel."

[illegible] Civil Assistant-Surgeon [illegible] time of [illegible] whole of [illegible] and, of these [illegible] treatment and [illegible] last were 5 cases of highly [illegible] pulled round remarkably quick [illegible] of perchloride of mercury [illegible] had practically failed to dislodge [illegible] Curiously enough cutaneous affections head the list with 178 cases, malarial fevers, mostly tertian and quotidian, [illegible] and disorders of the digestive system claim 139, while, contrary to the experience of most Indian hospitals the venereal complaints number 9 *only*, of which 2 were primary syphilis, 5 secondaries and 2 gonorrhœa. Singularly also for a low lying district with water-logged suburbs barely half a mile away, the rheumatic, respiratory and bowel affections record the low figure of 49, 25 and 8 respectively.

THE GRANT COLLEGE MEDICAL SOCIETY.

THE Grant Medical Society is to be warmly congratulated on the excellent amount of scientific work it effected in the last year during which the pharmacology and botany was investigated of 105 medicinal plants, all of which are indigenous to India and many of which had not been previously studied. Briefly classified these plants constituted 20 alteratives, 16 anthelmentics, 12 antiperiodics, 18 expectorants, 5 pectorals, 20 purgatives and 14 refrigerants. There are also some interesting reports on uvulotomy and abscesses of the Membranum Tympani. Despite the heavy strain on the members by plague operations and almost double work, *eight* very successful sessions were held by the Grant College Medical Society whose balance sheets tell a highly satisfactory tale considering, that beginning the year with a balance of deposit of Rs. 1,84-14-2 on 1st. March, the subscriptions and receipts ran up to Rs. 3,542-5-11 within the next nine months, and after paying up salaries for the year and meeting other expenses such as stationery, stamps, printery and journals the fairly handsome balance of Rs. 2602-13-4 was carried forward to this year's credit.

CIVIL ASSISTANT SURGEONS' PROSPECTS.

SAYS our contemporary, *The Bengal Times*:—"Civil Assistant-Surgeons are to be improved in position and prospects—so we read in an official *Gazette*, which declares this question has been, for some time, under consideration of our Supreme Government. Constitution of our Medical Services in India did not fall within the scope of inquiries of our Public Service Commission. That portion of our Civil Medical Service officered by Assistant-Surgeons, occupies, practically, a similar position in respect of pay, as at its first constitution as a regular Government service in 1842. But of recent years, opportunities which are offered to natives of India, educated in medicine according to European methods, of earning a living by private practice, without entering Government service, have much increased, and as a consequence, members of this service have some reason to be dissatisfied with their prospects.

THE LATEST FASHION.

WE take following from the *Chemist and Druggist*:—The *British Medical Journal* tells us that women have begun to scent themselves by subcutaneous injections of some [illegible] its perfumes. We are [illegible] *Medical Journal* does not [illegible] the breath and the body [illegible]

[illegible] obtained from [illegible] and we [illegible] made acquainted [illegible] but it would [illegible] purpose to make them public." It would [illegible] we should like to have them for our "Pharmaceutical Formulae." Subcutaneous scents which are safe, are [illegible] indeed, and it would be a good thing to let the [illegible] (who ultimately are called upon to compound such [illegible]) know what they are. The constitution of some [illegible] shows that they are likely to be exceedingly active physiologically.

HOMŒOPATHY TO BE MODERNISED.

THE *Chemist & Druggist* says:—German homœopathic practitioners are agitated at present about a proposal to bring their principles up to date. The notion arose in Berlin, and is due, apparently, to the progress which more rational allopathy is making nowadays. One distinguished homœopath admits that though HAHNEMANN and his disciples experimented under better conditions than were at that time obtained by allopaths, since then the discoveries of SCHWANN, PASTEUR, KOCH, and LISTER have given advantage which homœopaths have not availed themselves of. "LISTER'S antiseptic method," says Dr. V. SICH, of Stuttgart, "has thrown ours into the shade, and yet the local external treatment might well be supplemented by the homœopathic." This is so much of a concession; but the Berlin proposals go a great deal further —viz., to take the HAHNEMANN principles, re-examine them in the light of modern knowledge, and, by fresh experiment bring them up to date. The proposals are not agreeable to a goodly section of homœopaths, who see in it the beginnings of a departure from that individuality which has brought homœopaths many privileges, and one of these opponents (HERR W. STEINMETZ) declares that the changes contemplated, and the introduction of new and hitherto untested remedies not prescribed by HAHNEMANN, will not meet with Government approval, and that, consequently, the new Homœopathic Pharmacopœia, which is to come out of the experiments, will fail in its object.

THE NEW PHOTOGRAPHY.

THE possibility of producing photographic pictures without the agency of either camera or light has just been extended to living matter by Professor PERCY FRANKLAND, F R S, of Mason University College, Birmingham, who has found that cultivations of bacteria exert an influence on the sensitive film of the photographer. At the Chemical Section of the British Association on Friday, 9th September, Professor FRANKLAND gave an account of his experiments and exhibited a series of pictures which he had obtained by placing bacterial cultivations in juxtaposition with the sensitive surface of a photographic plate. Although the action can take place through a distance, it is stopped by the interposition of glass, and hence it is in all probability not due to any form of radiant energy, but to the emission of material particles which enter into reaction with the photographic film. Professor PERCY FRANKLAND announced his intention of extending the investigation to other organised structures, vegetable and animal.

SEQUEL TO THE DR. COLLINS' TRIAL.

AT [illegible] sessions of the House of Commons Mr. CHANNING [illegible] the facts [illegible] the trial of Dr. COLLINS and asked Sir M. WHITE RIDLEY whether he [illegible] as dealing with [illegible] to [illegible] would introduce or support effective [illegible] publication and [illegible] and [illegible] social mischief [illegible] character [illegible] as Sir M. WHITE RIDLEY declining to commit himself to early action, Mr. CHANNING gave immediate notice that the next session he would introduce a Bill upon these [illegible] as the evil was growing to an enormous extent.

THE ANGLO-INDIAN CONFERENCE AT ALLAHABAD.

IT has been definitely settled that delegates from all the Anglo-Indian Associations will meet in conference at Allahabad on the 27th to the 30th December next. Great political issues hang upon the results of this gathering of the clans. If our representatives are true hearted, fearless patriots, an opportunity is close at hand to make a very strong impression upon the Indian Government that the Domiciled European Community will no longer brook the injustice that is being heaped upon its members in every branch of the State service of the country. Our cry must be the absolute EQUALITY of the Domiciled British and European Community with the imported Britisher. Let this be raised with no uncertain sound and every grievance, no matter how great, or how small, will disappear the very instant the Government of India issues the edict that there shall henceforth be an equality of rights and privileges in India both for the imported Britisher and his kith and kin in this land. This MUST be granted, and the time is coming when the Government dare not refuse it.

RELAPSING FEVER IN BOMBAY.

RELAPSING fever is again unpleasantly prominent in Bombay and is assuming almost epidemic proportions. We read that the deaths have reached 75 a week, that the type is more virulent and that it is most severe amongst the Ghatti population, which also curiously enough provides the largest number of plague deaths.

The Relapsing fever hospital which contains over 100 beds is found to be hardly sufficient. The case mortality is about 10 per cent.

It is a curious phenomenon that Relapsing fever should thrive at the same time, and amongst the same class of the population as plague, specially when we consider that the arrival of plague as a rule is the signal for most of the other infectious diseases to depart.

PLAGUE IN THE BOMBAY PRESIDENCY.

THE following are some of the most important returns from out stations for the week ending 7th October.

Thana district 43 cases, 39th deaths; Poona district 66 cases, 50 deaths; Satara district 428 cases, 350 deaths; Sholapore district 36 cases, 30 deaths; Nasik district—157 cases, 89 deaths; Belgaum district—1,598 cases, 1,150 deaths; Dharwar district 1,671 cases, 1,424 deaths; Kathiawar—109 cases, 92 deaths; Kholapore and Southern Mahratta country, 745 cases, 581 deaths; Cutch State 75 cases, 57 deaths.

A PLAGUE TO BENGAL PLAGUE MANUFACTURERS.

THE following is one of the sections of the law creating the Florida State Board of Health: "Any person or persons, who shall falsely or maliciously disseminate, or spread rumors concerning the existence of any infectious or contagious disease, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than $100 or more than $1000, or by imprisonment in the county jail of not less than three or more than six months.'

Who started the Calcutta plague scare? Six months hard labor!

[illegible] ... the [illegible] of the other [illegible] ... [illegible]

[illegible]

Mr. A[illegible] of Windsor was arrested [illegible] of causing the death [illegible] nux vomica instead of laudanum [illegible] who was a confirmed opium [illegible] and asked for laudanum [illegible] very shortly after got [illegible] showed death to be [illegible] confessed that in [illegible] he had inadvertently [illegible] of the laudanum bottle.

[illegible] AND PERSONALITIES.

[illegible] Ross [illegible] in Calcutta and is engaged in trying [illegible] of the mosquito to infect human [illegible] parasite. Of course it has already [illegible] he has found out that the mosquito [illegible] birds with the germ. *Every* [illegible] of the inhabitants of India is bitten by [illegible] Ross calculate the percentage affected by [illegible]

[illegible] anæsthesia is comparatively rare; but just [illegible] surgeons of Adelaide, South Australia, had [illegible] removed a fairly large abdominal (internal) [illegible] patient, who up to that movement was breathing quite [illegible], began to gasp and shortly after died in spite of all attempts at resuscitation. The ether was pure and the Crown post-mortem attributed direct cause of death to œdema of the lungs.

According to Mr. A. W. A'Beckett, assistant editor of *Punch*, the central idea of the hypnotic influence exercised by Svengali, in Du Maurier's celebrated novel, was founded on a case reported in *The Lancet* some forty or fifty years ago. "No less a person than the famous Jenny Lind was able to cause a [illegible] girl without any musical education to sing like a [illegible] nightingale," says Mr. A'Beckett.

The following is recommended by a German professor as a rapid [illegible] way to sterilise drinking-water for [illegible] ship, in unhealthy localities, and for medical and surgical purposes: To a gallon of the water add, first, three drops of the following solution: water 100 parts, bromine [illegible] potassium bromide 20 parts; and then after five minutes [illegible] drops of a nine-per-cent. solution of ammonia.

In a Roman hospital recently excavated at Baden, Switzerland, [illegible] and surgical instruments were found, among them probes, tubes, pincers, cauterizing instruments, safety-pins, [illegible] spoons, silver measuring vessels, jars and pots for medicines—some containing traces of ointment. Fourteen rooms of the building have been excavated.

An ingenious nurse has [illegible] novel method of placing her hand over its mouth [illegible] when a little one begins to cry, and shutting the [illegible] off for a few seconds. This process is repeated [illegible] the crying is resumed until in a very short [illegible] the crying is the cause of its discomfort and philosophically ceases to cry.

[illegible] Tinsdall [illegible] lately [illegible] committed suicide by [illegible] window. The [illegible] unsound mind.

Dr. Thomson ascribes the [illegible] condition of public health in [illegible] produced by the following effects:—(1) [illegible] drinking water due to drought; (2) [illegible] of the lake; (3) excavation of sewage [illegible] lake in close proximity to native quarters; and (4) [illegible] fly pest.

Lieutenant-Colonel King, Principal Medical Officer [illegible] Rawalpindi, died there very suddenly on 16th Oct. He was in ill-health and was to have left for England in a few days. He died while sitting in his chair just after parting with a friend who called to see him. There was a large attendance at his funeral on the 17th.

The Chemists of Cape Colony are up in arms because the Government contemplates passing a Bill awarding a penalty of £50 or six months' imprisonment with hard labour to any one who sells a patent or proprietary medicine whose label does not bear a declaration of the exact composition of the article so sold.

Three officers of the Royal Army Medical Corps come next month under the terms of the Royal Warrant, and will have to retire—viz.: Surgn.-Gen. J. B. Hamilton, M.D., P.M.O., Western District, on Oct. 3rd; Lt.-Col. A. Anderson, Madras, on Oct. 1st; and Col. R. H. Robinson, Cork, on Oct. 18th.

Mr. R. Nathan, C.S., is to act as Secretary to the Plague Commission. The scope of the Commission's enquiry will include such matters as the origin of the different attacks of plague, the manner of its growth and spread, and the effect of past curative and preventive measures.

Mr. Fraser, now officiating, will continue as Home Secretary to the Government of India while Mr. Hewett is on the Plague Commission. The names of the three medical men from home are not known yet, and it is difficult to say how long the Commission will last.

Brig.-Surgeon James Edward Tierney Aitchison, M.D., Edin, C.I.E., F.R.S., LL.D., Bengal Army (retired) died, on Sept. 30th, at his residence at Kew in his fifty-[illegible] year. He entered the Bengal Medical Service in 1856 and served in the Afghan War of 1878.

The only domesticated birds whose cages are protected by mosquito nets in India, are canaries. Why do we not protect parrots and mainas, pigeons and fowls from mosquito [illegible]. There is a wide field of practical research for Ronald Ross, but Ross is just the man to [illegible] mosquitoes.

The Rev. J. Thompson cycled from [illegible] to [illegible] Castle, Scotland, where he allayed his thirst [illegible] water-bottle, which unfortunately contained a solution of a weed-killer containing arsenic, and Mr. Thompson was afterwards [illegible] in great agony.

Lt.-Col. W. [illegible] Egypt, has been [illegible] Col. C. F. Pollock, [illegible] but has since [illegible]

[illegible] was a [illegible]

[illegible] Representative of [illegible], has introduced a bill into the United States Congress providing for the appointment of a brigade dentist for each brigade with the rank of major, and one for each regiment with the title of captain.

After he has completed his investigation at Quetta, Major [illegible] Davies, R.A.M.C., will proceed to Poona for the purpose of making a sanitary investigation into the outbreak of enteric fever amongst the troops quartered in the Wanowrie Barracks.

The revival of the plague in the Punjab does not seem to have been very marked. There have been no more cases beyond the five at Kariam and one at a village in the Garshankar tahsil of the Hoshiarpur District.

It has been decided that the families of any native soldiers who may die while engaged in plague duty shall be eligible for family pensions as if the soldiers had died on foreign service.

Mr. Ernest Hart's services to the British Medical Association are to be commemorated by a scholarship for the "study of Preventive Medicine." This endowment which is tenable for two years is worth £200 (or Rs. 3200) per annum.

A telegram has been received from Durbhanga announcing the serious indisposition of the Maharaja of Durbhanga. Dr. Russell is in attendance, and according to the latest report the Maharaja is making satisfactory progress towards recovery.

A pension of $5000 has been awarded by the Russian branch of the Red Cross Society to Mr. Henry Durant, the initiator of the society, who is now in straitened circumstances.

In England the professional classes are distinctly taller than those of the lower orders. It is a fact that the Fellows of the Royal Society average taller than any other class of men.

Colonel Deane, I. M. S., Residency Surgeon, Kashmir, will probably succeed Colonel Hutchinson as Administrative Medical Officer of the Central Provinces.

Dr. Marshall, Health Officer of Bangalore, has resigned, asking to be relieved at once, as too many masters had made his position undesirable.

Dr. Lingard, Imperial Bacteriologist, whose health has broken down, proceeds home on a year's furlough at once. A medical officer will be appointed to carry on his duties.

Dr. [illegible] W. Chambers is freed from his duties as District Medical Officer under the Plague Regulations. He is now [illegible] back as [illegible]

Dr. [illegible], Professor of Surgery, has been [illegible]. His post is in jeopardy. Why [illegible]

[illegible] erected to the memory of [illegible] money was subscribed [illegible]

[illegible] the memorial of [illegible] McConnell. [illegible] the Treasury?

Captain [illegible], I.M.S., goes at once to [illegible] as Agency Surgeon in place of Captain [illegible], who met with a severe accident while riding.

Dr. J. Walter Leather has been appointed [illegible] Agricultural Chemist and Lecturer to the Government of India at the Forest School at Dehra.

The Principal Medical Officer, Her Majesty's Forces in India, has been asked for the services of sixteen medical officers for employment on plague duty.

Surgeon-Major-General Gore retires [illegible] during the cold weather from Calcutta.

Colonel Stephen, Inspector-General of Civil Hospitals, Punjab, avails himself of furlough from the 18th December.

Major M. O'Dower, I.M.S. has been permitted to retire from the end of November next.

Colonel B. Franklin, I.M.S., and Captain Pelton, Wiltshire Regiment, will accompany Lord Elgin home.

WANTED—A Medical Gentleman, graduated in Paris, of literary attainments and having a fair knowledge of several European languages, desires a situation with a Rajah, Native States, or Tea Gardens. Would serve as Private Secretary as well as Medical Adviser. Address "H.X.," care of Manager.

WANTED—A Passed Junior Chemist to take absolute charge of a small dispensary and aerated water factory in the mofussil. Apply with copies of testimonials stating age and salary expected to the Proprietors, The Pirhoot Stores and Pharmacy, Mozufferpore, T. S. R.

Medical Practitioners throughout the Indian Empire, and members of the Local Medical Services are kindly requested to send Original Articles and Clinical Reports of cases for publication in the Indian Medical Record. This must be done if the local medical profession is to remove the reproach being cast upon it of apathy and neglect of its duty in literary matters.

Members of the Indian Medical Association whose subscriptions are in arrears are requested to forward their dues to the Treasurer without delay.

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Subscribe to the the New Weekly *Record*. Kindly sign the printed postcard in this number and return without delay.

ON WOUNDS OF THE INTESTINES BY BLUNT FORCE.*

Our experience with what is stated in the literature of the subject as to the most frequent causing cause viz., that wounds of the intestines are far more frequently due to a localised force acting upon a circumscribed spot, then to a force that is diffused over the abdomen. Of our seven cases, six were thus caused, in one only, Case II did a diffused force (crushing between two wagons) cause a complete rupture of the jejunum from the ileum.

In his comprehensive work, giving 232 cases, Petry found that kicks from animals were the most frequent cause(58 232) ; Kicks from men were a frequent cause (21) and that being run over by carts (32 : 232) was also a common cause of rupture of the intestines.

The wounds may be brought about either by a quick moving object striking against the abdomen as the axle of a cart, a falling log, a stone etc., or by a man when running or falling coming in contact with a fixed object such as a post, beam, table corner, axle of a cart etc.

According to statistics far more men than women meet with these injuries. Petry in 232 cases found 217 men and only 15 women. Our cases were all men.

Different ages also suffer to a different extent. Our cases were all between 26 and 45 years. Petry found the great majority between 20 and 30 years of age. Both facts are easily understood Men are more frequently exposed to the dangers which lead to such injuries and they are especially exposed during those years when their working capabilities are most active.

The manner in which the intestinal wound is caused is sometimes clear enough from the condition of the perforation, its surroundings and position, as well as from a consideration of the force that caused it

In our cases we could not always definitely say whether the perforation was caused through the *bruising* of the intestine, or through *bursting* of the intestinal wall Doubtless when the force is great and rapid, and acts upon a circumscribed spot, the intestine can be crushed so forcibly against the spinal column, that the intestinal wall is directly crushed through (vide case IV).

In such cases the edges of the perforation are much bruised, sometimes it happens that there are two holes in the intestine opposite each other but in the same transverse section

Sometimes the internal pressure of the intestine may be so much increased by a sudden blow that the intestinal wall gives way or bursts, this is especially likely to happen when the canal is full of fluid, fæces, or gas , the probable explanation is that the contents cannot move out of the way upwards or downwards with sufficient rapidity. Obstruction may be caused by kinking of the gut from the blow causing a sudden indentation of the abdominal wall.

When the force acts more in a tangential direction a tear of the intestines may result, this may cause a complete division of the gut, complicated not infrequently with a tear of the mesentery, this occurs especially in the fixed portions of the intestines (Case II. division of the jejunum from the duodenum) The complete rupture may be caused by a longitudinal strain.

If the injury does not cause an immediate perforation, it often causes bruising of the intestinal wall, which in consequence of necrosis leads to a secondary perforation; in other cases the perforation is brought about by small ulcers which involve one layer of the intestinal wall (the mucous or submucous membrane, or separation of the coats by extravasated blood etc.)

The situation of the perforation varies according to the site of the injury ; the position and extent of the small intestine explains the fact that this portion of the gut is most frequently wounded ; out of 219 cases cited by Petry and others it was injured 163 times.

Of the small intestine again perforations are most frequently found in the lower part of the ileum, and the upper part of the jejunum, less frequently the large intestine is ruptured, after this the stomach, and most rarely of all the well protected duodenum. Sometimes, as already mentioned a complete division occurs at the junction between the duodenum and jejunum.

The number and the characters of the perforations are naturally subject to much variation, according to the nature of the force which causes them and the condition of the gut at the time of the accident. Most frequently there is a single perforation. Yet, as in our cases, there may be two, three and, even more perforations and in addition to these there may be bruises and contusions which may assume the importance of primary perforations.

In addition to round perforations which look as if clean punched out, we find oval perforations, tears and longitudinal rents of various forms.

The edges of the wound are sometimes smooth and clean cut, but more frequently they are, irregular, serrated, ragged, the last especially when the rupture is due to bursting, the edges of the wound is caused by the direct compression of the gut, as for instance by the force of the blow squeezing it against the spinal column are often extremely bruised, and their prognosis is very grave.

In consequence of the contraction of the muscular coat the form of the opening is liable to variation. The prolapse of the mucous coat is a very constant feature, it was noticed in all our cases.

This protrusion of the mucous coat which probably takes place immediately and which may be of considerable size naturally prevents primary closure of the perforation.

Yet in a few lucky cases a perforation may heal, by adhesions to a neighbouring loop of intestine, the serous membrane of which has become inflamed , often the closure of the opening is brought about by the omentum. In the majority of cases however such adhesions are prevented by the escape of the intestinal contents and by peristalsis. And even if they have formed, peristalsis or the exudation of fæcal matter, the varying conditions of the intestines, or the movements of the patient, may break down the fresh adhesions and separate the parts which have stuck together, so that the intestinal contents leak out into the abdominal cavity causing peritonitis and death , just as from an unsealed perforation only a little later (Case V.).

From the opening in the gut gas first escapes and is soon followed by fluid and more solid fæcal matter, while the gas collects in the upper part of the abdomen and causes tympanitis and diminishes the area of liver dulness. The fluid collects in the dependent regions, mixes with the quickly formed peritonitic exudation and causes a zone of dulness of variable extent.

The escape of the fluid contents possesses a special danger of its own, as it more easily and quickly penetrates to all parts of the abdominal cavity and sets up a diffuse peritonitis, while more solid matter frequently remains in the neighbourhood of the perforation and becomes encapsuled.

* By Dr. Adolf Schmitt, from the Münchner Surgical Clinic (Specially translated from the Münchner Medicinische Wochenschrift for the *Indian Medical Record*.)

The greater portion of ingested matter escapes immediately or soon after the occurrence of the perforations later on, particularly when set in, and there is paralysis of the peristaltic movements of the intestines, the intestinal contents escape in increased quantity, or not at all.

The direct subjective and objective phenomena arising from an injury to the abdomen from blunt force, are naturally extremely varied.

Many patients at first present almost no severe symptoms, although the intestines have been ruptured directly by the injury (cases III. VII, and VIII which is given as a supplement), they feel perfectly well and suffer no pain beyond what might be expected from the severity of the blow, they probably continue their work, walk home, and at the first feel nothing that would lead one to suspect a more severe internal injury.

In other cases on the other hand, immediately after the accident there is more or less severe shock; the patient has a drawn expression, there is exhaustion, complete apathy or great anxiety, consciousness may be lost.

In such cases the pulse from the beginning is small, weak, irregular, quickened, or more exceptionally slowed; the respiration is short, superficial, disturbed in rythm (Cheyne—Stokes' phenomenon).

The absence or presence, or the degree of severity of the shock are not to be relied upon in the diagnosis of intestinal rupture, even in very severe wounds of the intestines the shock may be slight or altogether absent.

The presence of pain is a very constant feature and its degree and duration naturally vary with the nature of the injury and with the individual In general the pain that is experienced immediately after the injury is not characteristic of wound of the intestines—it is selfevident that a severe blow on the abdomen causes pain,—Nevertheless a localised pain in the same place coming on spontaneously, or produced by pressure possesses a certain significance in the diagnosis, and I will consider this point later on—neither is vomiting, coming on soon after the injury characteristic it may be due to the blow itself.

In addition to, and in connection with these subjective symptoms, in the severer forms of abdominal injury various objective signs appear which can be made out by percussion, marked abdominal tympanites, this condition however can be developed without the existence of a rupture of the intestines. Tympanites does not necessarily point to the escape of gas into the abdominal cavity, should it however make its appearance soon after the injury and especially if the liver dulness diminishes owing to an accumulation of gas between the diaphragm and the liver, then tympanites must be looked upon as a pathognomonic sign of intestinal rupture.

Dulness over the flanks occurring soon after the injury may point to escape of the fluid contents of the intestines into the peritoneal cavity, or to internal hæmorrhage

In the further progress of the case a variety of symptoms will arise which will enable us to point with greater certainty to the nature and position of the injury that has been received, than we can possibly do from the above mentioned, early, and ambiguous signs; it must be clearly borne in mind that different organs may be injured by the same blow and that the symptoms of one lesion may be obscured and concealed by the more prominent signs of another.

Severe intra-abdominal hæmorrhage may be suspected when the patient recovers slowly or hardly at all from the primary shock, when the collapse is more prolonged than one would expect from the nature of the injury received

Sudden and increasing dulness in the deeper parts of the abdominal cavity is a symptom which points with great probability to internal hæmorrhage.

True, we have succeeded in demonstrating dulness in the flanks occurring soon after the injury when there was no severe hæmorrhage (cases VII and VIII supplement) but it is probable that in cases of hæmorrhage the dulness would increase and spread much more quickly than it would in cases of escape of the intestinal contents, even with the addition of serous and purulent exudation.

In hæmorrhage signs of collapse would soon be apparent, rapid anæmia, pallor of the face and body, the pulse is small, if it was good at the beginning it suddenly becomes small, frequent, weak, irregular or intermittent, the temperature of the body suddenly falls, a strong indication of internal hæmorrhage.

That signs of peritoneal inflammation may appear later on without any rupture of the intestines is known, the injury *per se* may set up traumatic peritonitis; this may be distinguished from infective peritonitis especially from perforation peritonitis by its relatively slower onset and milder course.

Perforation peritonitis which develops as the direct result of rupture of the intestinal wall and the escape of the infective contents of the intestines, assumes in its rapid course either the form of peritoneal sepsis, the poisoning of the body through the absorption of a large quantity of poisonous material, or the form of a true perforation peritonitis.

In the first case death from sepsis occurs very rapidly, often before there is time for any inflammatory changes to take place, the quickness with which the clinical symptoms develop in the second case depends,—apart from the quantity of the intestinal contents that has escaped,—upon the nature and virulence of the micro-organisms which may be present in the intestines.

The micro-organisms which are found to be the most frequent causes of infection are the Bacillus Coli Communis, Staphylococci and Streptococci.

Nevertheless the course of perforation peritonitis presents certain variations, according as it appears quickly and develops rapidly with only a short interval between the shock and its occurence or more gradually, though still quickly attaining it full typical form When the first disturbances arising from the injury have passed off, it may happen that one or two days pass before severe signs of peritonitis appear

The symptoms are well known, one of the first and most prominent is the occurrence of, or the increase of already existing, meteorism and tympanites in consequence of which the liver dulness is pushed up, or completely destroyed. Hand in hand with this we have increasing pain in the abdomen which may extend to every part. Yet it is important to note that the most severe pain may be localised in a circumscribed area. Vomiting comes on early, first the contents of the stomach, later on bile stained matter, when the injury is high up the vomit may be mixed with blood.

Fæcal matter and flatus cease to be passed, and, as in most of our cases, the patient is unable to empty the bladder.

The temperature is as a rule, though not invariably, much elevated, the respiration is superficial, short, laboured, and a characteristic and rarely absent sign is the small, rapid, weak and irregular pulse. Next the anguish and restlessness of the patient increase, he rarely becomes unconscious, and the expression of his countenance (facies abdominalis) betrays the torments which he suffers.

This is the usual course of events in rupture of the intestines accompanied by escape of fæcal matter

In very rare favourable cases the perforation may be closed by adhesions or by the attachment of neighbouring structures, and recovery may result, with the occurrence of a local abscess. As a rule however these adhesions break down later on in consequence of their weakness, this may be caused by peristaltic action, by vomiting, or by the movements of the patient.

When this happens signs of the most acute perforation peritonitis suddenly appear, it may be several days after the injury, during which all symptoms were absent.

An interval of this description is in the highest degree characteristic of that form of peritonitis which is caused by secondary rupture of the intestines as a consequence of bruises and contusions resulting from an injury, or,—as more frequently happens and is borne out by our observations—through simultaneous injuries of other internal organs.

Such bruises and contusions of the intestines, and likewise incomplete solutions of continuity, such as tears of the serous or muscular coat, naturally present the same direct effects of the injury received (shock, pain, vomiting etc.) as are seen when the rupture is complete; they may also heal completely after the appearance of these symptoms, and in this case their presence can only be suspected from the occurence of diarrhœa, stools containing blood or fragments of torn mucous membrane, local tenderness and some tympanites resulting from paralysis of the injured portions of the intestine.

These symptoms are however present in a minority of cases only.

As is only natural abscesses sometimes form in the bruised portion and lead to narrowing of the lumen of the gut.

Sometimes however the injury runs another and more severe course. While the wall of the intestine in its normal condition provides an effective barrier to the passage of the infective micro-organisms which are known to be present in the gut, it is quite possible that the bruised portion of the intestinal wall, with its tissues injured and its nutrition interfered with, may permit their passage through it, and so give rise to an infection of the peritoneum.

Such an infection sometimes runs a mild course, because the exciting cause gains access to the peritonial cavity gradually and in small quantities so that it is the more easily absorbed.

It is altogether a different matter when the injury affects the deeper lying tissues, causes extensive tears and leads to thrombosis of the vessels in the walls of the intestines, so that the bruised condition must lead to secondary necrosis, perforation and perforation peritonitis. In the cases we have operated on we have several times found, in addition to actual perforations, places bruised and contused in this manner, in particular extensive bruising was found in Case III.

In many cases they are clearly visible and tolerably well circumscribed, more frequently they are more extensive and and the serous membrane is of a purple colour; when the lesions are more severe and deeper and when the operation is undertaken later, the colour is browner and the tissues feel dry and brittle. In these severer cases the serous membrane has lost its polish and the place is certain to undergo necrosis in consequence of the injury to the tissues and to the circulation, to which must be added the effects of penetrating micro-organisms.

In milder cases healing can take place after absorption of the extravasated blood, in the manner already described.

We have amongst our cases of abdominal contusions two cases (which we will communicate at another time) in which,—although there was no primary rupture of the intestine, — as a direct result of a contusion in one case of the intestinal wall and in the other of the stomach, [illegible] developed, and rapidly caused death.

In both cases it was impossible to diagnose the exact nature of the injury.

The early diagnosis of contusion and bruising of the intestinal wall is usually impossible and most frequently we must be content with a possible or probable diagnosis, for the primary symptoms directly caused by the injury are similar in all cases of injuries of the abdomen caused by blunt force.

The additional symptoms mentioned above (diarrhœa, blood in the stools, traces of torn membrane, etc.) are absent in the great majority of cases.

Should however a perforation result from the necrosis of the injured portion and peritonitis set in, we will have no difficulty in coming to a conclusion as to the cause.

In cases of internal abdominal hæmorrhage the diagnosis can be made more easily and more certainly, from the continuance of collapse, the sudden weakness, dulness in the flanks which develops early and quickly, the weakness of the pulse etc., The origin of the hæmorrhage, if it be from one of the large glandular organs (liver, spleen, kidney) may be recognised in many cases from the character and the situation of the injury (as a blow over the liver or in the region of the kidney) Severe hæmorrhage may also be caused by wounds of the omentum and mesentery, the exact situation of which it is impossible to diagnose.

In such cases it is obvious that as soon as a severe internal hæmorrhage is diagnosed, laparotomy should be performed and the bleeding point sought for and secured.

The diagnosis of perforation caused directly by an injury is undoubtedly more difficult than the localisation of an intra-abdominal hæmorrhage; here where everything depends upon the diagnosis being made as early as possible, the subjective and objective signs which first appear are altogether unreliable, and naturally the symptoms which are common to all severe abdominal injuries are of little use in the diagnosis of a perforation.

Besides almost all observations show (The typical cases of Mac Cormac amongst others) and our own cases leave no doubt upon the point, that even in very extensive injuries with several perforations and much bruising of the intestines, all severe symptoms may be completely absent and even the subjective appearances very slight, it was especially noticiable that most of our cases even 12 and 24 hours after the injury stated that they felt well and experienced nothing particularly wrong with them.

In the absence then of the symptoms which are held to be specially characteristic, vomiting, meteorism, severe pain, alteration of pulse and respiration, it is evident that an early diagnosis is impossible.

But even the presence of a single important symptom is often unreliable, as for instance the early onset of severe meteorism occuring in consequence of paralysis of the intestines caused by the injury, this produces tympanites although there is no free gas in the abdominal cavity.

Of more importance is it when the general condition of the patient becomes aggravated, soon after the cessation of shock, if there is no hæmorrhage to account for it.

It is of importance in the diagnosis of intestinal perforation to pay attention to the nature and power of the force which causes it, putting aside the injuries which may be caused by such powerful agencies as being crushed between two railway wagons, the falling of heavy masses of stone, or the falling of the body from a great height, our cases show that perforation is most frequently caused by a rapid and

[illegible] blow [illegible] upon a [illegible] from an [illegible] the axis of a cart etc.)

[illegible] the above mentioned symptoms which are frequently present [illegible] pain [illegible] vomiting, meteorism, symptoms of the escape of gas from the intestines, and diminution of liver dulness (certain signs to which GLUCK [illegible] attention may be observed, they are not always present even in undoubted cases of rupture, and are therefore often overlooked. They are particular clearness of the heart and respiratory sounds over the abdomen, the pulse quick in the beginning, slows down later on in a characteristic manner.

Regarding special aids to diagnosis the method advocated by MOTY is to be avoided, he recommends the patient to drink water, if this causes intense pain it is a sign of perforation. It is clear that this method is not only unsafe but even positively dangerous because in this way adhesions may be broken down and the contents of the intestines may escape through the perforation with the peritoneal cavity

Further in cases of contusion of the stomach and of the intestines, severe pain will be caused by the contact of the water.

For the same reason SENN'S proposal, for the localisation of perforation by distending the intestines with water gas, must be rejected.

While according to MIKULIEZ in some cases if the abdomen is punctured, the perforation may be made out by the nature of the offensive, or specially smelling gas which escapes, (he punctured in a case of suspected rupture of the stomach and the evacuated gas smelt strongly of alcohol) or if the exuded matter be aspirated the presence of fœcal matter or particles of food may point to the existence of perforation provided always that the intestine is not punctured.

According to our cases vomiting appears to have a diagnostic importance only when it appears and gets rapidly worse a certain time after the immediate consequences of the injury have passed off, for with shock vomiting is one of the direct results of the injury

Even so however it can only be held to be a sign of peritonitis setting in, which is no proof that there is a perforation

Regarding the importance to be attached to alterations in the temperature and pulse we have already spoken

According to our observations a most important diagnostic indication is the occurrence of a circumscribed and sharply localised painful area the pain is often spontaneous but even then it is enormously increased by pressure, it even persists after the whole of the abdomen has become tender from developing peritonitis and may be situated some distance from the point where the blow impinged upon the skin, according to the direction of the force

We now make it a rule to mark out on the skin of the abdomen the area of the localised painful spot as soon as a patient is admitted, in order to judge of its constancy.

Further in one case, we were struck by the importance of a sharply circumscribed zone with a tympanitic percussion note closely corresponding to the area of the painful spot, this was noticed very soon after the reception of the injury and was doubtless due to the escape of gas.

It undoubtedly happens sometimes in cases of perforation with escape of gas that general tympanitis and diminution of liver dulness does nor occur instantaneously, owing to the natural divisions in the abdomen (omentum, messentery) the gas must take a certain time to be generally distributed. On the other hand CZERNY states that very rapid obliteration of liver dulness is indicative of rupture of the stomach, for here the escape of gas is nearest to the liver.

The above mentioned symptom of a circumscribed tympanitic zone can of course only be observed if looked for soon after the injury, whether it is frequently or regularly present I cannot say, for it was only in our last case that we noticed it. At any rate it is worth looking for.

(To be continued.)

Current Medical Literature.

MEDICINE.

Pathogenesis of Chronic Nephritis.

THE starting itself of the process, the state of the individual tissues and the extent and course of the disease vary according to the intensity and duration of the causative irritant, which if slight, merely affects the parenchyma but if severe, includes *all* the tissues, often in an equal degree. Though it is difficult to say why the disease still proceeds from acute to chronic nephritis, even when the exciting cause has ceased to act, or why the urine possesses a diminishing urotoxic coefficient with an absence in the urine of toxins or microbes, SENATOR thinks that (1) the changes in the tissues often occurring simultaneously (2) arterio-sclerosis in the kidney may be the result of chronic inflammation, or it may be primary or may arise coincidently with the inflammation (3) chronic nephritis, usually due to a faulty state of the blood may (4) arise from, or own the same cause as acute nephritis and (5) may end in a secondary granular atrophy or the change occurring (6) primarily in the interstitial tissue there may be (7) a primary granular atrophy or (8) chronic interstitial nephritis, or also (9) a contracting nephritis due to primary arterio-sclerosis, (10) closely allied to which is a contracted kidney due to a deficient blood supply from narrowing and aphasia, whether acquired or congenital of the renal arteries.—*Berl. Klin. Woch.*

New test for Peptone in the Urine.

To avoid the disadvantages complained of by SALKOWSKI that after concentration the coloring matter of the urine may not only conceal but also simulate the biuret test, E. FREUND dispenses with acetate of iron and phosphotungstic acid He adds 3 to 4 drops of a 10 per cent. lead solution to 10cc m. of the urine previously acidified with acetic acid, boiled and neutralised with liquor potassæ. He then filters and submits the almost colorless filtrate to the biuret test, which consists in rendering the filtrate alkaline and shaking it with dilute copper sulphate solution when a rose color appears. For this method he claims greater expedition and so sharp a reaction as to be able to detect 1 part of peptone or albumose in 12,000 parts of urine.—*Brit. Med. Jour.*

Temperature Relations in Apoplexy.

WHILE acknowledging that there are many rules and admitting the possibility of certain peculiar localisations of hæmorrhages and softenings modifying the symptoms, Dr. DANA maintains that in the enormous majority of cases the facts hold good that (1) in cases of cerebral hæmorrhage accompanied by hemiplegia, the temperature of the paralysed side is higher than that of the sound side, whereas (2) in acute cerebral softening from thrombosis or embolism, this difference of temperature which is a valuable means of distinguishing between the two conditions (*i.e.*, 1 and 2) is not present. No matter how pronounced and severe the central disturbance in hemiplegia due to embolism, there is no perceptible disturbance of temperature, as is to be found in thrombosis, no matter whether the trouble is hæmorrhagic or or thrombotic but the tendency 'to rise' is much greater with the hæmorrhagic.—*Lancet.*

Pretuberculous Enlargement of the Spleen.

As the result of numerous observations on prisoners under his care, TEDESCHI concludes that one of the earliest signs

of phthisis is an enlargement of the spleen. The only initial symptoms noticed by him in several of his cases were anæmia, wasting, frequency of pulse, and enlarged spleen, and though sometimes there was nothing enough for physical signs in the lungs, still typical cases phthisicals set in very shortly after.—*Ref. Med.*

General Paralysis and Diabetes.

Dr Holstein divides diabetic cases into three groups in their relation to general paralysis.—(1) Transitory glycosuria, so common in the neurotic and the insane has no etiological bearing on general paralysis (2) Glycosuria caused by general paralysis (3) True diabetes, causing general paralysis and frequently being associated with intense headache, vertigo, amblyopia and loss of memory. Under a Carlsbad course and antidiabetic diet the sugar decreases and the mental condition improves, but traces are often left in the form of slight facial paresis plus knee-jerks and difficulty in pronouncing long words. Thus supporting Charpentier's theory of the toxic origin of general paralysis or becoming as Landenheimer calls it "diabetic pseudo-general-paralysis."—*Sem. Med.*

Treatment of Alcoholic Meningitis.

Treatment is to be instituted from the beginning of the disorder. If any signs of debauch are left, wash out the stomach and give a purge. Feed the patient liberally with hot milk given every two hours. Avoid whisky as a stimulant, but give strych gr. 1—10 every two hours. Apply ice cap to the head, and blisters to the nape of the neck. If the patient becomes comatose, tap the spinal cord. The author cities fifteen cases in which amelioration of the symptoms occurred after tapping. By Dr. Chas L. Dana.—*Post Graduate.*

Value of Saliva from Infancy to Manhood.

Dr. W. G. A. Bonwill, of Philadelphia, said that he had noticed that nipples for infants' bottles are so long that they get under the infant's tongue, that they collapse readily and then no milk is delivered, and that the perforation is of such irregular size that the milk flows irregularly and usually too freely, so that no sucking is necessary and no saliva is secreted. To regulate the flow he has had a secondary nipple with a perforation of regular size introduced within the outer nipple, and the latter is made short and of a form much like a woman's, so that the infant must use its buccinator muscles in suckling, to obtain the milk, thus causing a flow of saliva and aiding digestion.—*Phil Med. Jour.*

Enuresis in Children.

Dr. Harold Williams divides all cases of enuresis in children into two classes: (1) Those of local origin, such as malformations, etc. (2) Those of functional origin, due to seven factors: (*a*) undue excitability of spinal centres; (*b*) anæmia; (*c*) reflex irritation; (*d*) direct volition—cold, fear of the dark, wilfulness; (*e*) auto-suggestion—the child having wet the bed, has been scolded and punished, and the habit assumes an immense and exaggerated importance to his mind; (*f*) retarded mental development; (*g*) enfeeblement of the will, which may be due to neurasthenia or hysteria.—*N. Y. Med. Rec.*

SURGERY.

Treatment of Fractured Patella by Wire of Steel or Silk-Rope.

After thoroughly exposing the field of operation instead of (1) Lord Lister's interrupted wire suture across the line of fracture. (2) Barker's vertical suture (of wire or silk) passed through the ligamentum patellæ and brought out through the quadriceps tendon after passing under both fragments of bone and (3) Butlin and (4) Twynam's subcutaneous (3) suturing and (4) tying (all of which are open to serious objections and the risk of a crippled or flail joint) is strongly recommended by Mr. Charles B. Ball M. Ch., F.R.C.S I., who operates as follows; (1) A horse shoe flap, whose lower end dips to 0·5 inch below the apex of the patella and its sides this same distance from the lateral edges of that bone, is raised in front of the knee joint, (2) the knee joint is opened and (3) the periosteum incised, raised and reflected with the membranous connection between the cartilaginous surface of each fragment, (4) any irregularities on the osseous surfaces are smoothed down with a chisel, but not sliced, (5) A rope made of 8 strands of very fine steel wire closely twisted together and properly annealed just before using so as to render it thoroughly aseptic and more easy to adjust, is passed thorough the quadriceps muscle just above the upper edge of the patella and the protruding ends are (6) next passed through the tendinous expansion *at either side* of the upper fragment and brought out at the level of the fracture, (7) The lower fragment is similary treated. (8) Minute incisions having been made under the loops at each of the corners to allow the wire to sink into the tissues, the wire is tightened by twisting together the ends of the wire rope on both sides of the bone. (9) When all is firm the twisted ends of the wire are cut short and hammered smooth, while the periosteal flaps are sutured together over the line of fracture and (10) a back splint applied after closing the external wound. Healing takes place pretty rapidly and a perfect joint results. A similar method, supplemented by horizontal perforation of the ulna for the reception of the lower rope, is suggested for fractured olecranon.—*Practitioner.*

Treatment of Conjunctival Affections by Argentamin.

After years of patient search for a remedy that could not only be employed with ease in various conjunctival affections, but would also combine disinfection of the eye and the contraction of its vessels while exerting a minimum of irritation, Dr. Josef Imre found just what he wanted in Argentamin or Ethylendiamin silver phosphate, which does not precipitate with fluids containing sodium chloride and neither burning nor itching retrogrades hypertrophied tissues and cures conjunctivitis, catarrhalis, blenorrhoica, trachoma, corneal ulcer and iritis much more rapidly than does silver nitrate. He found that argentamin does not enter into combination with the albumen of the tissues and except in a few cases where he used it as an irrigation or as eyedrops, Imre usually painted the affected parts 4 or 5 times daily with a brush dipped in the undiluted solution and obtained excellent results.—*Med. Age.*

Electrolysis of Small Growths.

Is strongly advocated as a "quick, safe, painless, aseptic bloodless and ideal method" by Dr. Bennett who used it to remove corns, warts, moles, piles, papillomata, nævi, epithelioma, condylomata, superfluous hairs, osteomata etc. In nervous patients he uses cocaine topically after which he pierces the growth with a needle held firmly in a needle-

THE INDIAN MEDICAL ASSOCIATION.

ESTABLISHED AND REGISTERED 1894.

OFFICE AND LIBRARY:

50, Park Street, Calcutta.

TERMS OF MEMBERSHIP

Every man or woman, who being duly and legally qualified to practice medicine, by virtue of holding a degree or diploma or qualification in medicine, whether British, Indian, Colonial, European or American, whether from State Institutions or Independent Medical Schools, and every person holding a Government Certificate entitling such person to practice Medicine in any official or private capacity, shall be eligible for election to Membership in the Association.

Every person desirous of becoming a member, shall send an application in the form given below, to the Secretary of the Association, and the Council shall consider and dispose of same at their next meeting. On any person being elected a member, an intimation to the effect shall be notified in the Journal of the Association, and on payment of the subscription, a certificate of membership shall be issued.

Application for Membership.

I, residing at , am desirous of being elected a Member of the Indian Medical Association; and I agree to pay the subscription, and to conform to the Rules and Regulations now existing, or which hereafter may be made by virtue of the same.

Name..... .. .. | Address ....
Professional title .... | Date ....

Every Member shall pay a subscription of five rupees per annum which shall entitle him to all the privileges of membership The subscription shall be considered due in advance on the 1st January in each year, and should be forwarded to the Treasurer.

The *Indian Medical Record* is the Journal of the Association, and is the medium of communication between Members of the Association. In it shall be inserted the Transactions and Proceedings, and all notices of meetings of the Association, and any other business which the Council deem necessary.

The Reading Room and Library of the Association are open to all members of the medical profession from 10 A. M. to 5 P. M. daily (except Sunday.)

Members who have paid their subscription to the Association, may now obtain their membership certificates and copies of the First and Second Annual Reports of the Association by applying to the Secretary. Name and address to be plainly written.

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RULES AND REGULATIONS

INDIAN MEDICAL ASSOCIATION PROVIDENT FUND.

I. The Fund shall be called the Indian Medical Association Provident Fund.

II. The Fund shall be registered under Act XXI of 1860, and the Registered Office shall be situated in Calcutta.

III. The object of the Fund is to give members of the medical community in India and Burma an opportunity of making provision for their families on the mutual benefit system.

IV. Any medical man or woman, may become a member of the Fund.

V. The Fund shall consist of two classes of subscribers, namely, (*a*) those who are members of the Association called Associate members, and (*b*) non-members of the Association called "non-associates." The subscription in each class shall be as follows:—

(*a*). Every non-associate shall, on joining, pay an entrance fee of Rs. 10, which shall be credited to the capital of the Fund.

(*b*). An annual subscription of Rs 6 shall be payable by every non-associate member which shall go to meet the working expenses of the Fund.

(*c*). Members of the Association will pay no entrance fee and no annual subscription. They will pay only their fee of Re. 5 as members of the Association and the "calls" of rule (*d*).

(*d*). On the decease of any member, a call of Re 1 per head will be made on all the other members of the Fund of both classes

(*e*). To meet such calls, members of each class shall place in deposit in the Fund, a sum of not less than Rs 3 at a time, to be renewed before the last rupee on hand has been paid on his account.

(*f*). Notice of the payment of a call shall be given by a post-card, and through the *Indian Medical Record*, which shall contain a statement of the sum paid on account of the member to whom it is addressed, and of the balance to his credit held in deposit in the Fund, and this shall be deemed a sufficient receipt for the payment of the call

VI. The nominee or nominees of each subscriber shall, at his death, receive a bonus calculated at the rate of Re 1 per head for each and every registered subscriber of the Fund, and who has a deposit in the Fund to meet the call

VII. The claims of nominees in each class shall be paid as follows.—One-half on submission of certificate of death and surrender of entrance certificate (Rule X) and the remaining half, in accordance with the terms of Rule VII, after the claim is admitted by the Directors in meeting

VIII. Applications for admission to the Fund must be made on a prescribed form which shall contain clearly written :—

(*a*). The full name, age, and address of the applicant

(*b*). The class he wishes to join.

(*c*) An engagement on his part to submit to and abide by the rules of the Fund.

(*d*). The name, age, and address of the nominee or nominees for whose benefit he joins the Fund

(*e*). And in the case of nominees who are minors the names and addresses of two or more guardians other than the subscriber, appointed in each case, to whom the bonus will be paid.

Every application must be accompanied by the entrance fee specified in Rule V (*a*), or by a postal money order or cash as subscription and "call" deposits due from associate members.

IX. A certificate of membership in the form prescribed shall be issued to each subscriber by the Secretary and Treasurer as soon as his name has been registered. This certificate may be renewed in favour of a fresh nominee on payment of As. 8 and surrender of original certificate. On a like payment being made, a duplicate certificate may be granted when the original is lost or destroyed.

X. Claims for payment must be submitted on a prescribed form containing a certificate of the death of the subscriber, signed by a duly qualified medical practitioner, magistrate, or a minister of religion. Payment shall be made according to priority of application, on a [illegible] tion of the nominee, who shall be required to surrender the entrance certificate granted under the preceding rule.

XI Every subscriber shall keep the Secretary and Treasurer of the Fund duly informed of any change in his address. If he fails to do so, he shall have no cause of complaint against the Fund for any disadvantage arising from such neglect.

XII. Any subscriber who fails to renew his deposit for payment of calls before it has been exhausted, and so cannot meet a call under Rule V (*d*) nor the subscription specified in Rule V (*b* or *c*) within the year for which it is due, shall, after reasonable enquiry, be adjudged a defaulter, and shall forfeit all claims upon the Fund. Nothing in this Rule, however, shall prevent a subscriber, whose name may have been struck off as a defaulter from joining the Fund as a fresh member on payment of all arrears

XIII. The Fund shall be managed by a President and three Directors resident in Calcutta, nominated by the Council of the Indian Medical Association from amongst their own members.

XIV —An Auditor, who shall be a Councillor other than a Director, shall be elected annually by the Council, the accounts being submitted to such Auditor quarterly for audit.

XV. The half-yearly Report of the Fund shall be published in the *Indian Medical Record*, after it has been placed by the Directors before the Council of the Indian Medical Association

XVI —The Annual Report of the Fund shall be placed before the annual meeting of the Indian Medical Association.

XVII —Any member of the Fund having a grievance against the Directors or Treasurer of the Fund may appeal to the Council of the Association for a consideration of his case.

XVIII —The Directors shall meet once a quarter for the transaction of business, and shall have power to make, vary, or repeal bye laws for the regulation of the affairs of the Fund, subject to approval at the next annual general meeting of the Association

XIX —All receipts, except sums credited to Working Expenses Account, shall be paid into the Bank of Bengal. When the sum accumulated in the Bank to the credit of Capital Account, in excess of the amount required to meet a call, admits of the purchase of Government Securities, an investment shall be made, and the interest obtained therefrom credited to Working Expenses Account.

XX —When any question arises which, in the opinion of the Directors, should be referred to the whole body of subscribers, or which involves the repeal or alteration of or addition to, any of the rules of the Fund, the votes of subscribers shall be taken thereon, and the question so referred shall be decided by the majority of the votes received within one month from the issue of the circular,

FORM OF APPLICATION FOR ADMISSION.

TO THE SECRETARY AND TREASURER,
Indian Medical Association Provident Fund, Calcutta

DEAR SIR, *(Station)*——————189

I,——————

hereby apply to be admitted as (1) associate / non-associate member of the Indian Medical Association Provident Fund, Calcutta, on behalf of my (2) ——————

now——————years of age, residing in——————

and I bind myself to submit to, and abide by, the Rules and Bye-laws of the said Fund.

I also agree that all claims on the above Fund shall be forfeited by my nominee, should I neglect to pay my dues.

I forward herewith Rs.——————

Yours faithfully,

Usual Signature and Address——————

(1.) Score out one word or the other to indicate which class you join.

(2.) State relationship. No minor will be accepted as a nominee, unless two or more guardians are appointed for whom the bonus money shall be paid, the name and address of each guardian being plainly written on the back of this form.

(PLEASE WRITE CLEARLY.)

Guardians appointed for nominee named on reverse.

Name. Address.

[illegible] The [illegible] in short coil, the [illegible] to be superimposed at right angles to [illegible] and the current turned on as before. [illegible] at once, blackens, dislocates and falls [illegible] without leaving a stain. The only dressing [illegible] is a little Ungt. Hydrarg. Oxidi Flav. and [illegible] parts of the blackened tissue, which must not be [illegible].—*Amer. Electro-Therap.*

The Shoulder. Its Mechanism, its Functions and Rules; Laws of its Dependence on Physical Violence.

[illegible] exposed condition and the complex functions of the shoulder it is evident that its component or dependent parts are frequently the seat of traumatism to which, Dr THOMAS H. MALLEY, remarks, males curiously are more prone than females. Acromio-clavicular dislocations though comparatively rare, cause such small impediment to function and are so marked in fleshy persons that they are apt to be overlooked after injury until it is too late to secure permanent readjustment, but even when they go untreated the resulting deformity is not very marked nor shoulder function much impaired. Scapular humeral dislocations are most complex and intricate and are harder to deal with than any other sort as they play so many freaks in their action and it is not easy to determine whether it is a luxation or subluxation or whether the head of the bone has left the glenoid cavity or simply sagged towards its border and been arrested there. The aggravated type is a serious affair necessitating special knowledge, discrimination and discretion in its management.—*Amer. Jour. of Surg. and Gyn.*

Ligation of the Subclavian Artery in its Second portion for Traumatic Aneurysm.

WAS successfully performed by Dr H. R. CROLY, on a man set. 37, who was stabbed above and below the clavicle with tailor's scissors. The hæmorrhage, at first profuse, was followed by a hæmatoma of the size of a small cocoanut, which rest and compression reduced the size of but on resuming his work the swelling returned with severe axillary pain, numbness and wasting of the arm. Medicine and massage having failed to properly relieve, one incision was run along the outer edge of the sterno-mastoid muscle and a second one along the clavicle. The clavicular portion of the sterno-mastoid was divided, the phrenic nerve exposed and the outer part of the scalenus anticus divided. After which 2 ligatures were passed and tied with the Ballance stay knot.—*Med. Press and Circ.*

[illegible]transillumination in Sinus Disease.

[illegible] infallible, but that it affords corroborative rather than conclusive evidence it surely has its place in aiding to [illegible] consisting of diagnosis thinks Dr. CHAS. H. KNIGHT, [illegible] attributes the prevailing scepticism on the subject to [illegible] conducted on the uncovered skull, as [illegible] of light may be obstructed not only by a thickened mucous membrane but also by bony septa, exostoses [illegible] or distortion of the bony wall of the antrum [illegible] but little value to the patient's pupils or the [illegible] by the patient with closed eyes, he regards [illegible] in the antral region as the chief and [illegible].—*Laryngoscope.*

[illegible] OBSTETRICS AND GYNECOLOGY.

[illegible] the Sex of an [illegible]

[illegible] gives the following:

1. When both [illegible] are [illegible]—that is, [illegible] twenty years—if the vigor of the husband is relatively greater than the wife's, expect a female child.

2. When with all other conditions the same as in 1, only that the mother is more vigorous than the father, expect a boy.

3. When the parents are relatively of equal vigor, expect an equal division of the children as to sex, for natural [illegible] the conservation of the sexes. If, however, with the vigor the same, the complexion of the mother is dark and the father is light, you may rather expect a boy. If on the other hand, the father is dark and the mother of light complexion, [illegible] rather lean towards a girl.

4. When one of the parents, though apparently as vigorous as the other, is comparatively either immature or senile, consider the one nearest the age of stalwart maturity as the more vigorous. For example. A wife sixteen to eighteen or forty-two or over, with a husband twenty-five to forty, prognosticates a daughter. On the other hand, with a husband sixteen to twenty, or forty-eight or over, and a wife twenty to thirty-five, expect a male child.

Very many exceptions to these rules will occur, so many, indeed, as sometimes to make them appear of doubtful application. Nevertheless a patient and extended trial will prove their utility.—*Pac. Med. Jour.*

Lactation Atrophy of the Uterus.

1. MODERN researches tend to prove that post-puerperal involution consists chiefly in a retraction and contraction of the individual muscle fibres, whereby the whole uterus is reduced in size. 2. When involution goes to its full completion the uterus is reduced to a size smaller than that of the nonparous organ. 3. This condition of complete involution is known as postpuerperal hyperinvolution. It is principally seen in nursing women, and from this circumstance has received the cognomen lactation atrophy. 4. The so-called lactation atrophy is a nominal and desirable condition. It is temporary in its duration, but very rarely under favorable circumstances may become permanent. 5. When the parturient is unable to perform the function of lactation it is the duty of the physician to endeavor to bring about hyperinvolution by other means at his disposal. 6. An observance of this course will prevent many a woman from developing a host of gynæcologic affections which frequently result from imperfect involution.—VINEBERG.—*N. Y. Med. Rec.*

Use and abuse of Midwifery Forceps.

DR. MILNE MURRAY of Edinburgh said no strict rules as to the use of forceps could be laid down. Forceps were often used at the wrong time, sometimes, not used at the right time and frequently badly used. The dangers were laceration, too sudden emptying of the uterus and injury to the fœtal head. He thought the greatest abuse arose in connection with their application when the os was small. He would enunciate the following aphorism: "Wait till you see what nature can effect, not what she can endure."

Dr. PLAYFAIR of London altogether denied that the obstetrician furnished most of the work of the surgical gynæcologist. The objection of impropriety was applied to all innovations in treatment. A great gain in modern practice was the almost total abolition of craniotomy.

Dr. Smyly, of Dublin, [illegible] always used axis-traction forceps [illegible] said that [illegible] was allowable to [illegible] forceps the head should be [illegible] and partially [illegible] the brim, the os should be dilated and the [illegible].

Dr. Fleming would lay down as a rule that at least one-half of the head should have entered the brim before forceps be applied.

Sir William Priestley said he had seen very serious damage caused by the use of the forceps when the head was above the brim and the os undilated.

Dr. Stephenson laid down the axiom that artificial extraction must never derange the mechanism of nature.

Dr. Milne Murray maintained that flexion was favored by axis-traction forceps.—*Brit. Med. Jour.*

Remarks on Preventing Conception by Operation.

Kehrer has suggested the propriety of producing artificial sterility by section of the Fallopian tubes through an anterior vaginal incision. Arendt refers to this as a very delicate proposition but sanctions the operation as justifiable under certain fixed conditions. Thus while Kehrer would resort to the operation in various constitutional disorders and certain incurable diseases of the nerves, heart, lungs, stomach and kidneys, A. would restrict himself to purely local indications. A. calls attention to the immediate operative risk, to the dangers of narcosis, and to the necessity of several weeks' confinement to bed. In advanced disease, therefore, in which pregnancy ought to be avoided, A. would advise his patients to resort to the usual simple preventive methods. In cases, however, of pelvic contraction with a previous history of dystocia necessitating craniotomy or resulting in dead children A. believes that Kehrer's operation is justifiable.

Because of the dangers in subsequent labors known to follow the operation of vagino-fixation of the uterus, A has ligated the fallopian tubes with the object of preventing conception in cases in which this operation has been indicated. With but one exception—in which formalin catgut was used—A has successfully ligated the tubes in sixteen cases. In the single exception the woman subsequently became pregnant. For future cases he advises dividing the tube between two silk ligatures. In cases to be operated for the induction of sterility alone he would advise a posterior colpotomy. It is of interest to note that out of 15 operated cases only 2 complained subsequently of dysmenorrhœa.—*Post Graduate.*

Influence of the Menopause on the Kidneys.

At a recent meeting of the Paris Hospital Medical Society, a report of which appears in the *Gazette hebdomadaire de medecine et de chirurgie* for December 16th, M. Le Gendre remarked that, while the influence of the menopause on the circulation and on the nervous system was well understood, but little attention had been paid to its effect on the renal function. He had observed several cases which had led him to the conclusion that the change of life sometimes disordered the secretion of urine, perhaps by provoking renal congestion and diminishing the amount of urine, thus depriving the organism of one of its emunctories and leading to the retention of noxious substances that were normally carried off in the menstrual blood. A certain degree of self-intoxication might result from their retention. This was most apt to occur in women who were of a pronounced neuro-arthritic habit. The symptoms mentioned by M. Le Gendre were a reduction of the amount of urine, sometimes moderate albuminuria or transitory hæmaturia, often lumbar pains, nausea, vomiting, and intense headache. They could be prevented, ameliorated, or altogether overcome by wet-cupping or leeching the region of the kidneys, leeching the cervix uteri, or general bloodletting, together with the use of diuretics, such as milk and theobromine.—*N. Y. Med. Jour.*

PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

Resection of the [illegible]

Messrs. Common-Male and Gaudier [illegible] patient before the Academy of Medicine at [illegible] April 19th. The patient was the subject of exophthalmic goitre and she had been operated on by undergoing resection of the sympathetic. The results were as follows: first, a most important diminution of exophthalmos; secondly, lowering of the beats of the heart from 200 to 100 in the course of a week while at the same time the painful phenomena in the præcordia disappeared; and, thirdly, there was no marked effect upon the goitre itself. Messrs. Common-Male and Gaudier concluded from their observation that in cases of exophthalmic goitre when the tachycardia is intense and continuous, when this is the only symptom, or when there is also exopthalmos, there is always the risk of dangerous symptoms supervening. In such cases section of the cervical sympathetic, which acts most probably by preventing the hypersecretion of the thyroid gland, is the best operation to do. At the same meeting M. Jonnesco read a paper on the Cervical Sympathetic in Epilepsy and glaucoma. He has performed this operation forty-six times. In epilepsy out of 35 cases, some unilateral and others bilateral, 15 had been kept under observation for from nine to eighteen months; 9 were cured completely and no untoward effects had been observed. In exophthalmic goitre total and bilateral resection had always been done. Four operation had been performed from fifteen to twenty months ago, and recovery was perfect in all. The tachycardia disappeared fairly quickly, the goitre got smaller and harder, and as for the exophthalmos it disappeared almost at once. In 6 cases of glaucoma the results were very valuable. When the glaucoma was simple and chronic the results were excellent; the sight improved and the pain disappeared. In one case where glaucoma had appeared after the goitre, bilateral and total resection had acted upon both these affections and a cure was the result. With regard to irritative glaucoma the results were much less satisfactory. Vision did not improve, although the tension in the eyeball became much less. Resection of the cervical sympathetic is, then, in the case of some patients a good operation and gives good results in a number of diverse diseases.

Very Delicate Test for Bile Pigment.

By Drs. Krokiewicz and Batko.—The following reagents are necessary: (*a*) A one-per-cent. aqueous solution of sulphanilic acid; (*b*) a one-per-cent. aqueous solution of sodium nitrite; (*c*) pure concentrated hydrochloric acid. The test may be made according to one of three methods: 1. To two cc. of the reagents (*a*) and (*b*) add from two to five drops of the urine, and shake; if bile pigment is present a ruby red color develops, which changes to amethyst violet upon the addition of one or two drops of hydrochloric acid. 2. To a few drops of the solutions (*a*) and (*b*) add an equal quantity of urine and one drop of hydrochloric acid, and mix; a deep violet color results. 3. Shake together in a test tube several drops of the solutions (*a*) and (*b*) and pour out; if five cc. of icteric urine be added, the mixture turns ruby-red, changing to amethyst violet upon the addition of hydrochloric acid.—*Post Graduate.*

Etiology of Syphilis.

In a very exhaustive article, Dr. Van Niessen draws the following conclusions:—(1) Syphilis is a chronic infection transmissible from the blood to the other tissues

[illegible] training and [illegible] crime and error in the milk, saliva, [illegible] and excrement of syphilitic persons, in all stages of that disease; but (4) not at all to be found when the syphilis is complicated with other diseases (5) Syphilis in all its stages is inheritable and communicable and (6) the the detection of the syphilis germ in the blood is essential to differential diagnosis and the proof of the presence of syphilis which (7) is absolutely incurable and relative healing denoting only a latent state. Medical art has yet to find a certain cure for syphilis.—*Ake Va Victis.*

Effect of Exercise on the Hæmoglobin with Reference to the Value of Rest in the Treatment of Anæmia.

Has not before been definitely defined; but the following conclusions may be drawn from a very valuable paper contributed by Dr. WILFRED EDGECOMBE, whose investigations show:—(1) that everything that stimulates the production of hæmoglobin must deplete the system if the subject is anæmic and there be no recuperative return compliment. Thus (2) while there is a normal day fall and night rise showing the destruction and regeneration of hæmoglobin (3) active exercise increases the extent of day fall and night rise and stimulates a slight overproduction of hæmoglobin; but (4) passive exercise diminishes the volume of the blood without influencing the hæmoglobin (5) Rest on the other hand removes the drain and reducing the extent of the day fall enables the constructive process to exceed the destructive and thus gradually builds up the store of hæmoglobin.—*Brit. Med. Jour.*

Effect of Different Foods upon Height and Weight.

INCREASE of weight may be due simply to greater absorption of water by the body or to mere addition of fat says Dr. C. VOIT; but while MALLING HANSEN ascribes all direct causes of acceleration to internal forces and persistently declares that different kinds of food have no direct influence upon growth, the experiments of RUSSOW showed that of,

	Children fed on Breast milk only.	Children fed on Mixed diet.
The average weight in grammes at the end of 15 days was:—	3564	3525
And at the end of the year it was:—	9930	8480
While the increase per cent. of their weight in 15 days was:—	150·7	140·7

CRAMER, on the other hand, thinks that results favor artificial food though he admits that in the middle of the year breast fed children were heavier than those kept on a mixed diet. But for all that there is no positive evidence of the superiority of artificial food to mothers' milk and it is a well-known medical fact that increase of weight is no true criterion of an infant's healthy condition.—*Pediatrics.*

Eosinophilic Cells in Tuberculous Sputum.

ARE considered highly important indications of (1) prognosis, (2) the patients power to combat the disease and (3) the therapeutic measures necessary. TRICHMNELLER, says that though the eosinophiles appear months before the bacilli can be found they decrease greatly in numbers or entirely disappear as soon as the bacilli begin to assert themselves. They seem to indicate the progress and intensity of the disease as no eosinophiles could be found in 42 cases who had bad prognostic symptoms.—*Centralbl. fur In. Med.*

PUBLIC AND PERSONAL HYGIENE AND SANITATION.

An Individual Drinking Cup.

'Precaution for sacramental or other drinking purposes is suggested on hygienic grounds by Dr. D. Brewer of Rockford, Illinois, who thinks that the abolition of the "common cup" in favor of the 'solitary or individual drinking cup' would long ago have been complete had the innovation not 'invaded the precincts of the holiest ecclesiastic sanctuaries and threatened a new element of expense (both as to equipment and subsequent custody) that the feebler village and rural congregations are ill able to bear.' He furthermore thinks, as did the *Indian Medical Record* some four years back, that every communicant should sip from a separate cup, and that every traveller and scholar, in public school or private academy should use an individual drinking cup; but as the expense of such an innovation appears to be the chief, if not in reality the *only* barrier to its universal adoption and as every baby is not born with the traditional "silver spoon in his mouth," Dr. LICHTY thinks that this difficulty could easily be overcome by replacing the solid silver, silver-plated-gold-lined, aluminium or glass cup, by others 'spun from wood-pulp or or stamped from paper' that would not only meet all sanitary requirements, but would also be so cheap that even the poorest church communicant could easily afford to buy and keep one for his sole use. These cups could be made plain, or in fancy designs or laterally collapsible so as to be carried in the vest-pocket, while for communion service they could be arranged in cancellated or perforated trays of light wood or wire and after use be gathered up and consigned to the fire. To the public school pupil also and the traveller they would soon find their way and win their own commendation, since their cost would scarcely exceed, or equal that of the paper plate and napkin (now so popular with tourists and picnikers) and would prove the easy entering wedge of a much needed, well-recognised and desirable sanitary reform.—*Jour. Amer. Med. Assoc.*

Moderate Drinkers.

IT is the fashion with many prohibition cranks to abuse the "moderate drinker," the logic of their reasoning being that there would be no drunkards but for moderate drinkers. At first blush that argument appears sound, but when we come to investigate it a little more closely, we find that, like many another hasty generalization, it conveys a fallacy consequent upon inaccurate observation. The *British Medical Journal* for April 30th, commenting upon "a well-meaning appeal to the medical profession, issued by the Manchester and Salford Women's Christian Temperance Association, says: "The fact is that people take alcohol either because they like its taste, or because they like the effects which it produces. The former class seldom become drunkards, the later are inebriates from the beginning." This point of diagnosis gives us a means of rescuing from the ban at least one section of moderate drinkers—viz., those who drink chiefly, if not entirely, with their meals. There are many people to whom a full meal is absolutely devoid of any enjoyable qualities in the absence of some light form of alcohol, in the shape of beer, well diluted whisky, or light wines, such as are commonly taken in France and Germany. A light wine of that character, whose alcoholic strength is sufficient to produce any vasomotor paresis of the mildest kind, even though a whole bottle should be drank with a meal, is a great desideratum. There are many to whom tea or coffee is positively nauseous when taken with full meals of meat or highly nitrogenous foods, who dislike milk as equally insipid and unpalatable, and to whom water is no better than nothing at all. They are the legitimate moderate drinkers, who drink for flavor and not for

[illegible] lay a [illegible] liberty.—[illegible] Jour.

Sewer-Gas and [illegible]

It has [illegible] been [illegible] that the inhalation of sewer-[illegible] the [illegible] of diphtheria, although [illegible] bacilli cannot [illegible] in this medium, since [illegible] not [illegible] by [illegible] from the fluids in which they are grown. It is possible that a non-virulent diphtheria bacillus [illegible] present in the throats of many persons may, in consequence of the inhalation of sewer-air, become virulent and give rise to diphtheria in the throat. In order to determine this point, non-virulent diphtheritic bacilli were [illegible] in [illegible] in broth, and over the surface of [illegible] sewer-air was continuously and slowly drawn by means of a water-pump. The only noticeable effect was a stimulation of the growth of the bacilli. Their virulence was not increased, as was proven by subcutaneous injections in guinea-pigs. These results are interesting, although they do not exhaust the question.—*Monthly Cyclopædia.*

When may the Subjects of Gonorrhœa be Deemed Cured?

The *Journal des praticiens* for 16th April regards this question as of the gravest importance, because the compulsory abstention from intercourse bears hard upon the patient, while its too early resumption is fraught with danger to the woman. It is commonly recommended to have recourse to to the "reaction of Neisser," which consists in producing an artificial irritation of the urethra by injecting some drops of a solution of nitrate of silver, whereby a secretion is caused which may be examined for gonococci. For the same purpose, the drinking of beer, the passage of bougies, etc., are recommended. Dr. Delefosse condemns these measures as not only without value, but actually dangerous by reason of the risk of producing cystitis, orchitis etc. His method of procedure is as follows. Coitus is not permitted so long as there remain filaments in the urine in any number, or so long as the filaments are long and fall rapidly to the bottom of the vessel or contain gonococci pus organisms, or even many pus-cells. When the filaments are short, few in number, slight, and floating, he directs the patient to present himself early next morning without having urinated since night, and having thoroughly fatigued himself on the preceding day. Pressure is made per rectum on the prostate, then the finger is drawn exteriorly along the urethra for its entire length, pressing firmly. At the same time, if necessary, a bougie may be introduced to afford a point of resistance. He collects from the meatus the discharge so obtained and submits it to microscopical examination, finally, the canal is scraped to a depth of two inches or two inches and a half from behind forward, and the scrapings are examined under the microscope. If these two examinations are negative he directs the patient to drink, during the following week, beer or champagne, to ride a bicycle, and to take long walks; then he makes another morning examination. If this proves negative, he sanctions coitus after a fortnight.—*N. Y. Med. Jour.*

Antitoxin Poisoning.

Five cubic centimetres (500 units) were given as a prophylactic to a patient. Five days later urticaria, accompanied by malaise and chilliness, was observed. The eruption soon extended all over the body. There was prostration, vomiting, and œdema of uvula and pharynx. After thirty-six hours the symptoms moderated but by that time general glandular enlargment had developed which persisted for ten days. The same patient developed a transient urticaria two years previously after an injection of 7 cubic centimetres of serum.—*Med. & Surg. Jour.*

[illegible] Coca [illegible]

As the heart is an automatic [illegible] ganglia and connections it may [illegible] brain and as heart [illegible] treatment at present favrs, it is [illegible] that the [illegible] of incurability is abandoned thinks Dr. [illegible] who points out that 'heart failure' really means 'failure [illegible] lack of nerve force' shows that the active principle of coca almost immediately tones and relieves a weakened heart as well as strengthens it by increasing the [illegible] of digestion, while its action on the sympathetic nervous system causes (1) Augmented functional activity of all the muscles of organic life, (2) increased intellectual and muscular activity by excitation of the cerebral and spinal nerve centres and (3) an action on the protoplasm of the extremities of the sensory nerves whereby they cease to transmit impressions. Angina pectoris is caused by partial obliteration of the coronary arteries, anæmia by a variety of causes that weaken the heart by a deficiency of blood. In either of these cases a good heart-tonic is wanted and scarcely any better than coca whose action has been compared to that of strychnia, without however the danger of the latter. True nature will cure any diseased organ or tissues but she *must* be helped by proper food, time, judicious medication, wise expenditure of nerve forces and removal of the causes. These things being so, coca, supplemented with good blood—making food, should be more used in heart affections and heart failure from direct weakness and might, in many cases well replace the conventional digitalis, which advances the treatment of heart diseases no more than it was 40 years ago.—*Jour. Amer. Med. Assoc.*

Guajacetin and Eucasin.

Were introduced as specifics in phthisis by Oertel Schrotter and Goldmann but they have been proved at the Borough Hospital, Vienna, by Kubasta who tells us (1) that while Guajacetin is free from the repulsive taste and smell as well as the irritant effect its substitutes, creasote, guaiacol, etc., exert on the mucous membrane of the alimentary canal, it checks the night sweats improves the apetite and general condition and besides bein useful in pulmonary affections such as pneumonia and pleuritic exudations, it acts as an efficient hæmostatic in hæmoptysis. (2) As it is obtained from milk and contains 95 per cent of albumen but neither michin nor extractives, Eucasin is particularly indicated in wasting diseases of all kinds as well as in gastric complaints from the readiness with which it is absorbed and its property of neither interfering with urate elimination nor forming uric acid.—*Med. Age.*

Calomel in Typhoid Fever.

Is claimed as an invaluable drug which Dr. [illegible] finds (1) is free from danger often (2) directed against the seat of the disease by (3) being given in small doses hourly without interruption till the disease symptoms are [illegible], or till the germs become sore. In the early stages (4) large purgative doses will either abort or modify the disease or dissipate profound toxæmia and he notes (5) that the course of typhoid is shortened and graver features avoided by the systematic administration of calomel.—*[illegible]*

Permanganate of Potassium in Opium-Poisoning.

Dr. L. N. Grosvenor, gives the following directions:

1. When you find that opium, or any of its alkaloids has been taken, give a hypodermic injection of solution of [illegible] grs. of permanganate of potassium [illegible] ounce of water, at short intervals

[illegible] vagina with [illegible] douche, keeping [illegible] for [illegible] examination.

3. Wash out the stomach with a solution of permanganate, 1 grain to the pint of water, until washings come back pink, repeating the solution one minute each time.

4. Give a dessertful of solution of the potassium permanganate, 10 grains to the pint of water, every half-hour till recovery.

If patient is unable to swallow, use the stomach-tube with a large bore opening, and through the nose if necessary. Do not forget your rectal speculum (for dilatation of rectum); it may be of great benefit at critical moments.

In case of failure of heart and lungs, use artificial respiration and your hypodermic of strychnia.

The permanganate of potassium is not a poison, but is a local irritant; therefore use a large quantity of a weak solution, rather than a small amount of a strong solution.—*Cal. Med. Jour.*

Spermin in Diabetes.

Dr. A. Telnichin reports his own personal experience in the subcutaneous injection of spermatic fluid on himself in traumatic diabetes, under the direction of his physician, Dr. Litkin. The spermatic fluid employed was prepared personally by the author and Dr Litkin from the testicles of bulls and dogs

Diuretic Wine.

For œdema, general anasarca and dropsy, in cardiac and renal disease.

℞	Fl ext of jalap		
	Fl. ext of squills,	...	aa fl ʒiiij.
	Fl ext. of jaborandi,	...	ff ʒj
	Fl. ext. of digitalis,	...	m xxx
	Nitrate of potash (pulv.),	.	ʒiv
	Angelica wine	.	Oij.

M. f. s. a. Sig One tablespoonful every three hours.—*M. and S. Rep*

Sachet-powder.

Powdered liquorice	...	...	ʒviij
Powdered orris	..	...	ʒiv
Powdered sandalwood	...	...	ʒij
Powdered vanilla	...	...	ʒij.
Essential oil of almonds	.		mv

Mix.

Liniment for Neuralgia.

Ichthyol	. ...	.	1 dram.
Mercurial ointment	...	.	1 dram.
Chloroform	..	...	6 fluidrams.
Spirit of camphor	...	...	6 fluidrams.

Shake well before using, and rub over the affected part.—Eulenburg.—*Medical Weekly.*

Chronic Diarrhœa and Dysentery.

℞	Sulphate of copper	... ...	1 gr.
	Sulphate of morphine	... ...	1 gr.
	Sulphate of quinine	... ...	24 grs.

Make twelve pills. One three times a day.—*Med. World.*

Asthma-Powder.

Stramonium (coarse powder)	...	...	ʒiv.
Camphor	...	...	ʒss.
Potassium nitrate	...	...	ʒss.
Lobelia (coarse powder)	...	...	ʒij.

Mix.

CORRESPONDENCE.

THE C. D. ACTS IN INDIA.

To the Editor, "Indian Medical Record."

Sir,—With your permission I should like to make a few comments on a "Medical Man's" reply to my letter in your issue of 1st September.

He accuses part of my letter of irrelevancy, because he says:—"It has always been considered necessary to draft a special act for dealing with venereal, which shows that there is no intention of trying to deal with it on precisely the same lines" (as other diseases). Can it be possible that a "Medical Man" has not grasped the fact that this time the government have not considered it necessary to draft a special act, but have modified the Cantonment Rules, under the act of 1889, so as to include venereal diseases along with cholera, small pox, diphtheria and typhoid fever?

However, he has shifted his ground in this second letter, and has dropped that question in order to advocate a "special act" which is to deal with a "special class." He must, therefore, either consider that the present steps taken by the government are inadequate, or else he must expect, as many others are known to do, that the rules can be so worked with regard to these diseases, that they will be equivalent to the special and distinct legislation enforced in India in previous years. Thus it is quite clear to what measures a "medical man" refers, when he says —

"Such measures are more likely to succeed under the simple conditions that prevail in India, than in the large European capitals "Simple" must be an adjective prefixed for the first time to any conditions of life in India, but the words "more likely" which precede, seem, if any thing, stranger to the ordinary mind, when used in connection with what has been a matter of experience for nearly a century in India For ninety years India has seen "the strongest repressive measures" brought again and again into force, only to be dropped in a few years as useless, to be once again resuscitated in a few more years, as at present, by a new generation of officials, who forget or ignore previous failures. To show this more exactly, between 1864 and 1887 Regulation was in full force in India, and the measures, which were put in operation, were such as a "medical man" would probably consider "likely to succeed," and what was the result? During this time the rate of admissions for venereal disease rose from 255 to 361 per 1,000 The condition of things was such that the Army Sanitary Commission in their report for 1877 ask, "If these facts are in any sense to be accepted as a success for the present protective machinery what kind of facts would indicate a failure"? The same body in their report for 1883-84 say again, "all the past experience shows that none of the methods hitherto adopted for dealing with them (i.e. the diseases) appear to have made any material impression on their amount." Well might Sir Anthony Home, (K.C.B., V.C., Surgeon-General and Principal Medical Officer, British Troops in India) say in an official despatch dated 9th June 1882, "It is surely obvious that failure after seventeen years application means nothing more nor less than the hopeless inadequacy of the measure to effect

the purposed [illegible]. In my opinion it would be as hopeful to try to "stamp out" a will-o-the-wisp, as to "stamp out" venereal disease in a cantonment by the machinery of the registration and segregation of a few women called prostitutes, out of a multitude of unchaste women."

These quotations bring me to two points in your correspondent's letter, which seem to point to his ignorance both of historical and present facts.

He considers the action of the government in "facing such an unsavoury and unpopular task" to be conclusive evidence of the necessity of the measure. Perhaps he may now realise that the action of the present government is not an isolated instance; former governments have manifested similar zeal, but have been driven to acknowledge their failure, and to repeal the "unsavoury measures."

But it was my last quotation, which speaks of a "multitude of unchaste women," that must seem to "a medical man" to militate against his special separate and distinctive class which "chiefly fosters and spreads venereal disease." Let one venture to refer him to a despatch from Lord GEORGE HAMILTON to the Government of India, dated 26th March, 1896. There he will find stated in paragraph twelve that there exists a general concurrence of opinion, that a *large number* of cases of venereal disease originate with the low class of women who frequent the vicinity of the barracks after dusk..... whatever may be possible should be done to diminish the number of women employed in various work about the soldiers' barracks Nor is this a solitary mention—a report from Surgeon Major BARCLAY, in 1885, pointed out the increase of these diseases in the 'relief' (winter) season, when the troops were continually moving about, due to clandestine prostitution with the country women. Again, the Army Sanitary Commission, reporting on the Madras Hospitals, speaks of the fact that the regulations "do not include all classes (note the plural) from which infection may come," while another part of the same report states that "to keep down clandestine prostitution would require a degree of zeal and hourly watchfulness never likely to be carried out." Many like paragraphs could be quoted, such as the report of the Bombay Sanitary Commission, which speaks of "women in the fields," (the country women mentioned above) and "along the roads to the cantonment," quite different classes from the women of the Lal Bazaars, including, as is said elsewhere, "female punkah coolies, grass cutters and others."

I cannot help suggesting to your correspondent a wider range of reading in governmental reports and elsewhere; since he expressly states that the existence of this separate class, is to him the most important fact of all, it seems strange, that he is not in possession of the ordinary facts of the case, at least in this branch of the subject.

Finally, your correspondent says that if the Paris system were unsuccessful, it was because the "administration was not up to its work," and he would doubtless give the same causes for failure in the past in India. It would be interesting to know if he has any suggestions or plans ready, such that would enable past difficulties, extending over a long period of years to be easily surmounted in the future?

Yours &c., X. Y. Z.

SCANDALOUS NEGLECT OF P. M. O'S IN THE ARMY IN INDIA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—You have done the Local Medical Services a favour by exposing the corruption to which Head Clerks are addicted in the P. M. O's. offices of all three Presidencies, and it is to be hoped that those who hold communications from these men asking for "25 pills" or for "a hundred pills to be distributed amongst the people as they will do a lot of good" will send them to you to make use of. Very often the handwriting is feigned, but the address, tenor of the requests and allusions made, lay matters pretty bare. The late removals during the frontier business led to a lot of money changing hands, and not a few Hospital Assistants have been fleeced without obtaining what they wanted. Others again have given so much as 80 and 100 Rupees to escape Field Service. The men were nominated by the Command Office, or by the P. M. O, in India, yet have managed to evade going, through the District P. M. O. Baboo's juggling. Your former correspondents are correct in saying that this is known to officers of the service, for, no sooner a Native Army Hospital Corps man is warned or punished he begs for a few days leave, and the invariable remark by his Commanding Officer is "I expect he wants to find his way to the P. M. O's Baboo to get away from this." Long before official orders are received in a Station Hospital, a ward servant is able to tell one where he is going to, in fact, he is prepared to move on receipt of the order because he has had "khubber" days before, having "squared" the Baboo himself or through a friend. Let the P. M. O. of the Bengal Command, for instance, call for a return showing the actual distribution of Warrant Officers and Hospital Assistants doing military duty in his command, and note how many of the *temporary* "subordinate charges" are in the hands of senior men—let him call for a register of all applicants for vacant subordinate charges and note how long they have been left unattended to. Perhaps he may find that *senior* applicants have been placed in charge of sections, (a panacea) while the "*permanent subcharge*" is for the time being in the hands of a junior. Why? to gain time to "come to terms" if possible. Another procedure I have noticed, which is nothing but gross impudence done in the name of those in authority. When the P. M. O of the Command in on Inspection tour he is accompained by a small office staff, the senior Baboo has the audacity to write to each Senior Assistant Surgeon about to undergo inspection, to "put him up", or make arrangements for his board and lodging. Often the Hospital Storekeeper is the individual who has to suffer. I have also seen a note addressed to "My Dear Mr.————" Please have an ambulance cart, with a ward servant and kahars, to receive the luggage at the Railway station. The P. M. O. will arrive by————train, and wishes these arrangements made." Of course, the "Senior" knows this is simply a *lie*, for no P.M.O. would order a Government Hospital Ambulance cart and a ward servant of the A. H. N. Corps with hospital kahars to convey his luggage from a railway station. If entitled to a government carriage he would indent on the Commissariat Department. Yet this is what has been done in

his name, and, I am ashamed to say, complied with. The remedy lies with the P. M. O. in India and the P. M. O's. of Commands. Stringent circulars should be sent to all station hospitals on the subject. All movements, transfers, appointments, leave etc, in the I.S.M.D. should be solely between the P.M.O. of Commands or Districts, *direct* with Medical Officers in charge of station, or other hospitals. P.M.O's. of Districts should certify in their Annual Inspection Reports that all orders bearing on the transfer appointments and leave of Warrant Officers and Hospital Assistants should be promulgated by themselves in consultation with the R. A. M.C. officers immediately concerned. Nothing less than drastic measures of this sort will remove the scandal now under exposure. At the same time, the I. S. M. D. should be made aware once for all, that any man found communicating with any of the P.M.O.'s clerks on the subject of leave, transfer or appointments will be severely dealt with.

Lastly why not substitute senior assistant surgeons in Command Offices for Baboos? If they can be utilized on field service as P.M.O.'s clerks, why not in peace times in the Command Offices?

Yours &c., OLD SOLDIER.

(For the honor of the Military Medical Administrators of India and for the good of the local medical officers under their command, we most earnestly solicit the attention of the P. M. O., Her M's. Forces in India to this utterly disgraceful state of affairs. We shall wait a reasonable time for official action in this matter.—ED., I. M. R.)

AN ASSISTANT SUPERINTENDENT FOR THE HEALTH DEPARTMENT.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Apropos of Dr COOK'S proposition, has it struck nobody that, apart from the disinclination to afford work to any one who does not bear the Hall mark of British birth and training in England or the stamp of *Vishnu* or *Kali*, there is a distinct attempt to slow over Eurasians and to disparage the qualifications of present officers in the Health Department. As an argument in favour of his request for appointing a fourth Superintendent of Conservancy whom he thinks should be imported from Europe, Dr. COOK pleads his inability to come into "efficient contact with his ward Inspectors so as to *teach* them their work" and refers to the Budget for 1895-96 as proof that "one of the Superintendents was getting Rs. 400 per mensem plus Rs 50 horse allowance', but he forgets to admit that the Municipality has already given him *six* Medical Inspectors and an Assistant Health Officer with special sanitary and chemical qualifications to assist him in supervising and controlling the duties of 3 Superintendents of conservancy and 25 Ward Inspectors whose work carries them over 11 square miles of ground, which 4 Food Inspectors are considered more than sufficient to look after, and he apparently ignores the fact that the "one Superintendent" he specially refers to was the late Mr. GILBERT WRIGHT who *years* ago took up office as "Personal Assistant to the Health Officer" which designation was simply changed to "Superintendent, Southern Division, when in 1886 the Municipality engaged its *first* whole-time Health Officer, of course Mr. WRIGHT continued to draw his big pay till he was pensioned off, when I understand Mr. H. VINCENT was promoted to his place.

I quite agree with what *Capital* has to say about a clean sweep in the Municipality being necessary, and I think that the Imperial Anglo-Indian Association should inveigh on the Government to find a better proportion of Eurasians employment in the Municipality, in the whole of whose enormous staff there are about 30 Eurasians of whom only 10, I think, are to be found in the 200 and odd hands that comprise the Health Department. If Dr. SIMPSON could get through 8 "beats" per morning in addition to his additional duties on the *Indian Medical Gazette*, the demands of the Microscopical Society and his other Health duties, why cannot Dr. COOK who has the Health work only to attend to, manage to do 6 wards daily and, making 7 complete tours per mensem of the town and suburbs succeed in giving *each* Ward Inspector 84 in place of the 12 lessons only that he expresses his ability to give in a year. Dr. R SEN, the Assistant Health Officer and each of the Medical Inspectors and the three Superintendents could act similarly each day, and thus ensure every Ward Inspector getting 2 practical teachings for every morning in the year, and he could also receive theoretical instruction when he attended the Health Office for "reports" in the afternoon. There would also be the salutary result of the men being kept up to their work and complaints such as *Indian Engineering* exposes would soon cease to exist.

Eight years ago I made a suggestion which would have worked wonderfully well if it had been acted upon instead of being shelved indefinitely Complaints rose on every side that the food supply was badly adulterated and the conservancy worse looked after, I wrote to the then Chairman suggesting that the Ward Inspectors be authorised to look after the food supplies while going through their several Wards, and that as an inducement to efficient work their salaries be increased by 20 per cent. while to prevent risk of corruption one third should be Indians, one-third Europeans and the remainder Eurasians, and that the Police system of monthly or quarterly shifts be employed. So that race feeling would make the one lot watch the others, while their frequent changes would accustom them to the requirements of every ward and prevent their becoming too friendly with the resident rate-payers and food vendors. All this could have been done and far better results arrived at than now obtains, at a cost of nearly Rs. 40,000 *less* per annum, than is now expended on the Health Department.

Similar remarks could as aptly be applied to other departments of the Calcutta Municipality, which is incessantly howling about increasing expenditure and decreasing reduction of rates, but is at the same time cutting its own throat and damaging its interests by making the Christians give way to Indians who for the most part live in joint houses paying *single* rates and clubbing together to reduce menial (ie household) establishment, and starve *hundreds* of folk.

Were the *Record* a purely political instead of Medical Journal I could adduce *oceans* of irrefutable evidence that the practice of replacing Europeans and Eurasians by Indians is a suicidal policy that depletes trade, ruins the currency, impoverishes India and rushes the crime lists up by bounds.

That the Imperial Anglo-Indian Association should see to this as soon as possible is the honest and well-meant advice of,

Yours &c., B. G. S. C.

[illegible] ON THE [illegible]

To the Editor, "Indian Medical Record."

Sir,—With your kindly [illegible] following letter from the *Indian Engineering*.

"Microbes on the brain is the epidemic under which in various ways humanity, at least in India, is now suffering. You pointed out the other day the peculiar effect which this disease seems to have produced on the logical faculty of an eminent Microscopic luminary in the official firmament at Agra. Time and again we, as well as some of your contemporaries have pointed out the external effects in one direction which this disease has produced on the minds of the Powers that be at Darjeeling. All India is aware only too sadly and too well of the particular phase this disease assumed in the case of the eminent fraternity attacked by that variety of the microbe known (?) as the plague bacillus. In all these the one effect seems to be a curious suspension or displacement of the logical faculty. In Agra one luminary condemned water as not potable which contained fewer microbes than others which contained more! In Darjeeling the subjects of the disease have persisted in forcing on the unfortunate inhabitants water, which such an eminent expert as Surgeon-Major BANNERMAN, had conclusively shown to have been by a costly process brought into a condition more congenial to microbe propagation than nature had intended In Bombay a virulent attack on the brain of microbe of the plague variety resulted in widespread discontent, riots, dislocation of business and other concomitant evils, while, if we may judge by results, they concurrently appeared to have had the further effect of enlarging the field of microbic activity, till a return of health to the ruling powers restricted the mischievous activity of these pests by wiser regulations. In Bengal the results in Calcutta are well known; here however, thanks to the strength of constitution of our Provincial Governor, the disease failed in its attacks on him, with the consequence that the measures actually taken to restrict the field of activity of of these microscopic organisms differed so greatly from those followed in Bombay (and advocated by the luminaries here suffering from microbe on the brain), that they actually succeeded in their object; but the disease here took an unexpected and wholly unforeseen turn—it induced its eminent victims to "jubilate" and "liquor up!" This particular rare and amiable symptom of the disease appears to be well worthy of study by the Medical faculty, and might well occupy the attention of biologists and physiologists! In Madras although the plague variety of the bacillus has found no firm footing, the less mischievous ones of the Darjeeling filter variety seem to be in a fair way of finding scope for their activities!

Unwarned by the researches of Surgeon Major BANNERMAN, which have demonstrated that the water in its natural state in Darjeeling actually contains less microbes than after passing through the particular sort of filter patronised by Darjeeling—that the filter forms a sort of breeding ground for these microscopic pests, and that the measures there adopted to purify water are not only inefficient but expensive besides, Madras has been seized with the mania of repeating the experiment by patronising that particular form of filter. There is none so obstinate as he who *will not see*!

The public meanwhile have to pay the piper and to grin and bear it."

Yours &c., D. P. H.

GRIEVANCES OF MADRAS [illegible] HOSPITAL ASSISTANTS.

To the Editor, "Indian Medical Record."

Sir,—As a member of the Indian Subordinate [illegible] Department, I note with extreme satisfaction and pleasure that through the great active interest exerted by the Indian Medical Association and yourself, the grievances of the Military and Civil Assistant Surgeons have been redressed and their pay and future prospects bettered.

I, however, regret to find that nothing has yet been said or done for Military Hospital Assistants, although it has been repeatedly pointed out by you and others that the grievances of this despised class are undoubtedly real and are worth favorable consideration. This unfortunate class were no doubt eagerly expecting that their 'hardships' too would be considered and would be be removed. How much has been actually considered, we are not aware of. But this much is clear—nothing has been done. This news was as might be expected received with such disappointment and utter despair.

We can easily see that the mental distress consequent upon disappointment must have been not a little, when we remember that this despised class are more hardly worked and more badly paid than their Assistant Surgeon brethren. It is well-known that the Military Hospital Assistant has the same duties to perform among native troops as the Military Assistant Surgeon among British troops. The former is qualified to do and hence quite competent to do that which the latter is required to. Nevertheless there exists an extremely marked and unreasonable difference between their respective salaries. After going through a course of four years' study in the Medical College, a Military Hospital Assistant—as he is called—gets a pittance of Rs 16 per mensem by way of salary, whereas his better styled Assistant Surgeon brother draws Rs 85 per mensem. There seems to be no sufficient reason for such a difference when the course of training for both classes is the same, and both have the some professional qualification and the same professional duties Nay, in one respect the humble Hospital Assistant is superior to the Assistant Surgeon, *viz.*, in respect of general educational qualification, for the poor Hospital Assistant must be a matriculate to find entrance into the Medical College, though the Assistant Surgeon need not be a passed candidate.

Many years have elapsed since the poor Military Hospital Assistants submitted their memorial praying for an increase of pay in the various grades of their service. They have not as yet been heard and there has been no response. Now that these "rejected many" have sought you for their redeemer I humbly hope that you will take up their cause, and represent to the governing body their just claims, thus enabling them to sit side by side with their Assistant Surgeon brethren, in whom the Government have found "a chosen few."

Yours &c., Y.

Madras, Perambur, *11th October, 1898.*

(The Indian Medical Association will shortly approach Government in the matter of Hospital Assistants' grievances.—Ed., I.M.R.)

EDUCATION OF MADRAS HOSPITAL ASSISTANTS.

To the Editor, "Indian Medical Record."

Sir,—In the minutes of the 13th Meeting of the Indian Medical Association, I find (*Indian Medical Record* 1st June 1898, page 207) the words "Much reform is required in the education of Hospital Assistants.

[illegible] they [illegible] their medical [illegible] meant [illegible] application [illegible] to [illegible] routine [illegible] I beg to [illegible] that ever [illegible] the Madras Medical College in 1885 and [illegible] year 1898, Hospital Assistants are taught [illegible] not in the vernacular, and that [illegible] who [illegible] not passed their Matriculation [illegible] as [illegible] termed in Bengal) are not eligible to the Hospital Assistants' Department.

However strongly the issues mooted on your page 467, above referred to, may hold good for Bengal, Mr. J. M. Philip, L.M.S., the representative of the Hospital Assistants' Service, will readily bear me out that the preliminary education of Madras is in no way lower than that of Calcutta and that the Madras Hospital Assistants are required to put in a *four* years course at the Medical College, where every branch of their studies, both practical and theoretical, *is taught in English only*.

On page 466 of the same issue I read, "In Bombay and Madras the Matriculation opens the way for the L.M. and S." Kindly permit me to correct this as it is not consistent with fact, since in the Madras Medical College youths are not allowed to study (as I hear they *are* in Calcutta) much more appear for the L. M and S. examination, until they have passed the First Arts Examination.

As I do not believe the Indian Medical Association intentionally included Madras in the category of "Hospital Assistants who are taught in the vernacular languages only," I trust in justice to my Service you will kindly find room for this letter in an *early* issue of your valuable journal.

Yours &c, K M. Yusuf

Madras.

(The Secretary of the Indian Medical Association stands corrected and respectfully apologises for this unintentional libel on Madras Hospital Assistants and the Madras Medical College. The fact that the educational and professional requirements in Indian Schools vary so much only proves the general faultiness of Government methods in India Ed I M R)

AFTER NINTEEN YEARS SERVICE NO BLESSING AFTER ALL

To the Editor, "Indian Medical Record"

Sir,—I see it stated in the *Record* dated the 16th October, that the Secretary of State for India has abolished the Rs 60 class of Military Assistant Surgeons and that the 200 class "will be attained after 19 years service instead of 24, the present average"

Since reading this I have amused myself in working out the averages for the three presidencies.

Bengal gives an average of 21 years and 3 months for the 10 years, 1888-97, Madras 19 years, for the 7 years, 1890 1897. Bombay 18 years and 7 months for the 7 years 1888-91 and 1893-97 None were promoted in 1892 I have excluded apprentice service and men who have received special promotion It will be seen from my figures that Madras and Bombay men have nothing to be thankful for and that Bengal men very little, if anything, as the men of this Presidency who were promoted in 1897, had an average of 19 years and 3 months service.

Yours &c, Scrutator.

A SUGGESTION FOR THE TREATMENT OF PLAGUE.

To the Editor, "Indian Medical Record."

Sir,—Have any of your readers, especially those, who have the treatment of plague cases, ever tried the application of Unguentum Hydrargyri Nitratis, for the glandular swellings in such cases?—I have tried it in about 50 cases and in nearly every case had favorable results, namely a gradual diminution in the size of the swelling, which finally disappears, accompanied with a very marked lessening of the [illegible] in the affected area.

[illegible] are in young children and in [illegible] begun early.

Of [illegible] limited experience, but I shall be glad if others [illegible] wider fields to work in and [illegible] such cases would give this a trial and kindly publish their results.

Yours C. P. [illegible],

Assistant Surgeon on [illegible] duty.

Sholapore.

WHAT SHALL BE DONE FOR A URINARY FISTULA IF AN OPERATION IS REFUSED?

To the Editor, "Indian Medical Record."

Sir,—Will you please or any of the numerous readers of the *Record* very kindly let me know what is the best method of treatment to be adopted in the case of urinary fistula, when recourse to instruments or even to the catheter is flatly refused by the sufferer.

The external opening of the fistula is in the scrotum and of about a month's standing

The patient is gonorrhœal.

Yours &c., "One of the Profession."

(Massage with mercurial ointment over the tract of a fistula has recently been attended with good results but operative interference is necessary in most cases—Ed, I M R)

Government Medical Gazettes.

GOVERNMENT OF INDIA.

Lieut.-Col. G C Hall, I. M. S Bengal Estab., granted tempy rank of Col from 17th Sept. 1898

To be Surg -Col

Brig -Surg -Lieut William Edward Johnson, M.D, Madras Estab, 30th June 1898

Madras Estab—To be S A S. with hony. rank of Surgn -Capt James Thomas Dodd, 9th Sept 1897

To be S A S with hony. rank of Surgn. Lieut. Charles George Roberts 9th Sept, 1897

The following officers have retired from the service —

Surgn -Col Sir George Thomson, K.C B 6th July, 1898.

Lieut Col Joseph O'Brien, M D, 19th Aug 1898

Surgn.-Lieut -Col Kali Pada Gupta 29th June 1898.

Major Alexander Frederick Ferguson, 8th Sept. 1898.

The services of Capt H D Mason, R A M C, are replaced at the disposal of the Mily. Dept, from 1st Oct. 1898.

The services of Capt. C R Stevens, M D, F.R.C.S. I. M. S. (Bengal) are placed permanently at the disposal of the Govt. of Bengal

Asst Surgn Udai Bhan, Impl Estabt three months' privilege leave from 4th Sept. 1898

The services of Asst Surgn. Devindra Singh Otto, Impl. Estab are temply placed at the disposal of the Agent to the Govr -Genl for Baluchistan for appt. to the Ry. Hosp., Sharigh

Major H R Woolbert, M B, I.M S., Offg. Med. Officer, Kotah and Jhlrapatan, one month's privilege leave, from 19th Sept 1898

BENGAL GOVERNMENT.

Asst Surgn. Behari Lal Pal, doing duty at the Presy. Genl. Hosp leave for three months.

Asst Surgn Sasi Bhusan Banerjee, doing special duty in connection with cholera inoculations at Purulia, to do supery. duty Med College Hosp

Asst. Surgn. Kali Prosunno Basu, a supery., at the Med. College Hosp. to Madaripur sub-divn and Dispy.

Asst Surgn. Roma Nath De, Madaripur subdivn. and Dispy, leave for three months.

PUNJAB GOVERNMENT.

Hosp. Asst. Nabi Bakhsh, Sampla Dispy. Rohtak Dist. privilege leave for three months, 30th Sep. 1898.

Asst. Surgn Duni Chand Rai, Bhiwani Dispy. Hissar Dist. three months' privilege leave from 4th Oct. 1898.

Hosp. Asst. Ramjas, Jullundur, to Adampur Dispy. in that dist. from 1st Oct 1898.

Hosp. Asst. Moti Ram assumed charge Jail and Lock-up Hosps. Rawalpindi, 2nd Oct. 1898.

[illegible]

Hosp. Asst. [illegible] Kishen [illegible] Dispy. [illegible] Dist. [illegible] Ludhiana [illegible] Sep. 1898.

Hosp. Asst. [illegible] Singh [illegible] Dispy. Ludhiana Dist. [illegible] Dispy. Rawalpindi Dist. 26th Sep. 1898.

Hosp. Asst. Harnam Singh [illegible] Attock Dispy. Rawalpindi [illegible] Dispy. [illegible] Dist. 3rd Oct. 1898.

Hosp. Asst. Ratha [illegible] did genl. duty at Ludhiana from 17th to 25th Sep. 1898.

Asst. Surgn. J. D. Ribeiro, doing special plague duty at Ludhiana, was apptd. as Plague Med. Officer at that station from 20th Sep. 1898.

Asst Surgn. Nand Lal Udawat to Rupar Dispy. Umballa Dist 27th Sep. 1898.

Hosp. Asst. [illegible], Chenab Canal, one month's privilege leave, from 2nd Oct. 1898.

CENTRAL PROVINCES GOVERNMENT.

Hosp. Asst. Brijlal Purohit was deputed on Famine duty under the P. W. D. Balaghat Dist, from 26th April to 6th Sept. 1898.

Hosp. Asst. P. Narsingh Rao Mudaliar, doing duty under Civil Surgn. Nagpur, to be 2nd Hosp. Asst Heude Bansilal Dispy Nagpur.

Hosp. Asst. Girma Singu to Umrer Branch Dispy Nagpur Dist.

Hosp. Asst. Murlidhar to Main Dispy., Chhindwara.

Hosp. Asst. Bhagwan Das, to Chindwara Main Dispy, to do duty under Civil Medical Officer, Chindwara

Hosp. Asst Bhondu Lal was employed on Famine duty Saugor Dist., from 5th to 11th March 1897.

Hosp. Asst. Muhammad Amir, was granted privilege leave from 24th to 31st August 1898

Hosp Asst, Saiyid Mehdi Husain, doing duty under Civil Surgn. Hoshangabad, to Arvi Branch Dispy, Wardha Dist.

Hosp. Asst. Chhajjumal, to main Dispy, Wardha

Hosp Asst. Govind Vittal, Main Dispy, Wardha, three months' privilege leave.

N.-W. P. AND OUDH GOVERNMENT

Asst. Surgn. A. Robertson, European Civil Hosp Allahabad, to officiate as Asst. to Civil Surgn. Allahabad, from 6th Aug. 1898

Majors to be Lieut.-Cols. 30th Sep. 1898

Terence Humphrys Sweeny, Daniel Francis Barry, M D, John Anderson, M B.

Capts. to be Majors 30th Sep, 1898

Selby Herriot Henderson, M.B, David Wilson Scotland, M.B., James Morwood, M D.

BURMA GOVERNMENT.

Hosp. Asst B. B. L. Agnihotry, to Henzada, 18th Oct. 1898.

Hosp. Asst. K. Kanaren assumed charge Civil Hosp. Monyo, Tharrawaddy dist. 7th Sept, 1898

Hosp. Asst. P C. Ghose, assumed charge Genl. Hosp. Akyab, 12th Oct. 1898.

Hosp. Asst. Hem Chander Koyal assumed charge Civil Hosp. Pegu, 23rd Sept. 1898.

Hosp. Asst. Bitoo Mohun Bose, assumed charge Civil Hosp., Kyaukpyu 25th Sept. 1898.

Hosp. Asst. B B. L. Agnihotry made over, and Hosp Asst. Bitoo Mohun Bose, received charge Jail Hosp. Kyaukpyu, 25th Sept. 1898.

Hosp. Asst. Munshi Ram Sherma made over, and Hosp Asst. Chandra Sekhar Roy assumed charge Lock-up, Pegu, 23rd Sept. 1898.

Hosp. Asst. F. A. Francis assumed charge Outpost Hosp., Kazu, Myitkyina dist. 13th Sept. 1898

Hosp Asst. Josiah Masilamoney assumed charge Ry. Dispy, Zigon, Tharrawaddy dist., 19th Sept 1898.

Hosp. Asst. N. C. Ghosh, charge Civil Dispy, Maungdaw, Akyab dist 8th Oct 1898.

Hosp. Asst. Daniel Paul assumed charge Civil Hosp. Yenangyaung, Magwe dist, 8th Oct. 1898.

Hosp. Asst. Abdul Karrim, assumed charge Police Hosp. Magwe, 11th Oct. 1898.

Hosp. Asst. Maung Shwe Chane, held charge Police Hosp. Magwe, from 3rd Oct. 1898 to 11th Oct. 1898.

Hosp. Asst. Maung Tun U made over, and Hosp. Asst. Raj Chander Kur, assumed charge Lock-up, Mandalay, 8th Sept. 1898.

ASSAM GOVERNMENT.

Hosp. Asst. Lalit Mohan [illegible] Sylhet dist. a Supery. for duty [illegible] dist. from [illegible] Aug. 1898.

Hosp Asst. Lalit Mohan [illegible] Sylhet dist. to Bautyaghong Dispy. in that dist. from [illegible] Sept. 1898.

Babu Pulin Bihari Deb, a passed student Calcutta Campbell Medi. School is apptd., [illegible] a Civil Hosp. Asst. in Assam [illegible] a Supery. from 13th Sept. 1898.

Hosp. Asst. Sojawat Ali, having passed the Sept. Profl. Exam. of Hosp. Assts, is promoted to the second grade, from 1st Oct. 1898.

Hosp. Asst. Krishna Prasad Sen, a Supery. in the Kamrup dist., to Lakhimpur dist a Supery. for duty under Civil Surgn. from 6th October 1898.

Hosp Asst. Amir Uddin Ahmad, in medl. charge Dalu Dispy Garo Hills dist for duty as a Supery. in that dist, from 7th July, 1898.

Leave for two months and fifteen days, is granted to Hosp. Asst. Ananda Kisor Datta, Jaintiapur Dispy. Sylhet dist. from 5th Aug. 1898.

Hosp Asst. Satis Chandra Chatterji, a Supery. Sylhet dist. Jaintiapur Dispy in that dist. from 5th Aug. 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Rs 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTH.

FELLS—On the 4th October, at Travancore, the wife of Arthur Fells, M B, C M, Medical Missionary, of a daughter.

DEATHS.

AITCHISON—On 30th September at Priory Terrace, Kew Green, Surrey, James Edward Tierney Aitchison, M D, F R S., L.L D, retired, Brigade Surgeon of H. M.'s Bengal Army.

TRESHAM—On the 19th October 1898, at Allahabad, Eleanor Jeanetta, the beloved wife of Surgeon-Captain D. J. Tresham, retired list, I S M D, aged 55 years, 9 months and 5 days

NOTICES TO CORRESPONDENTS.

Pater familias—Your remarks are met by our comments in this issue Rs 1-8 and Re. 1 per mensem for a weekly medical paper will not be felt by Assistant Surgeons and Hospital Assistants respectively. A "weekly" is bound to do more good for the advancement of the local profession than a "fortnightly" and it is sure to awaken literary interest all over the country.

The Indian Medical Association.—Every member is bound to pay Rs 5 yearly towards his subscription, but this saves him Rs 5 yearly towards the Provident Fund as an "Associate" member

Warrant Medical Officers' Provident Fund.—Several members have complained of the apparently uncalled for delay and procrastination in the transfer of this Fund to the I. M. A Provident Fund. Surgeon-Captain Wade, now asks Surgeon-Major Hodgkins, who is the President of the W. M. O Provident Fund, to authorise him to hand over his charge Major Hodgkins is about to do so and we trust Captain Wade will expedite matters, as the Council of the I M A. will gladly attend to the demands of claimants as soon as it is in a position to do so.

J. H. (Madras).—Thanks, next number.

M. M. D. (Ghazipur).—The error you refer to is simply clerical. The letters C. M. S. are only applied to Hospital Assistants. Our office will correct the slip you refer to at once.

T. C. R. C. (Mandalay).—Your suggestions are quite in order, and due allowance will be made for them, when the Council of the Indian Medical Association, makes a representation to Government regarding the formation of an Army Medical Corps for India and a distinct and separate Civil Medical Service.

ORIGINAL ARTICLES.

NOTES ON APPENDICITIS.*

By Arthur Cheyne, M.B. Lond., F.R.C.S. Eng.
Surgeon to King's College Hospital, London.

During the last few years so many cases of appendicitis have come under my notice that it seems desirable to add here a few remarks on the subject, gathering together some of the more important facts that have been forced on one's attention, and endeavouring to define one's position as to the vexed question of treatment.

Not long ago the very name of appendicitis was unknown in surgical text-books; typhilitis, perityphlitis, and peratyphlitis were described in works on medicine, but the true characters of the affection were but little studied. At the present time there seems no reasonable objection to the new terminology, since there is but little doubt that the appendix is primarily at fault in the great majority of these cases. One does not in the least question that true typhlitis exists, and that it may lead to a series of complications, included under the name perityphlitis, almost identical with those arising in appendicitis, but the number of these cases is comparatively small.

It is extremely difficult to gain any idea as to the frequency of this affection, but that it is extremely common cannot be called in question. Tuffi, of Copenhagen, stated some years back that he had found evidences of its previous existence in 35 per cent. of all bodies that he examined after death. The conditions that lead to it are very diverse, but it is evident that the old idea that assigned as its chief *cause* the presence of orange pips, grape stones, or other foreign bodies must be entirely discarded. It is only in a comparatively small proportion of cases that concretions are found; earlier writers stated that they were present in nearly 50 per cent, but this is much too high a calculation, Murphy and Treves both suggest about 30 per cent, but to my mind even this is too large a figure. These concretions are rounded ovoid bodies, rarely exceeding three quarters of an inch in diameter in their longest axis; they are usually laminated, showing that they have been old inhabitants of the appendix; they are formed of inspissated fæcal material, held together by mucus, and often with a considerable addition of phosphate of lime. Occasionally a small foreign substance such as a grape pip forms the nucleus. It must not be forgotten, however, that even if one grants the existence of a foreign body in the appendix, we have still to explain why it leads to an outbreak of inflammation when it has lain in this situation for so long. Possibly the final attack is due to its gradual increase in size, leading to pressure atrophy of the walls, or probably some other factor has to come into play.

I have been much impressed of late with the *rôle* that is attributed to injudicious movements, strains, twists, &c., and to my mind mechanical conditions play a much greater part in the etiology of appendicitis than has hitherto been assigned to them. Fitz, who has investigated this subject statistically, assigns about 10 per cent. of the cases to this cause, and Treves, commenting on these figures, states that he thinks them too high. My own cases have been, I fear, too few to warrant any statistical statement; but certainly in a considerable proportion injury or some injudicious exercise had been present immediately before the attack, and might certainly have been an important accessory. Thus I saw last summer at Ramsgate, with Dr. Parkes of Rickmansworth, an architect who had been in bad health for some time, in consequence of dyspepsia and general asthenia; he had enjoyed a heavy meal of new bread and apples, and then proceeded to take part in a display of agility, consisting in jumping over chairs, forms, &c., and the same night a severe attack of appendicitis started. The ingesta to which the outbreak might have been attributed could scarcely have had time to bring it about. Certainly the effect of mechanical influences in determining relapses cannot be gainsaid; as a result of the first attack the appendix becomes bound down, probably at its apex, to some of the surrounding tissues, and the result of sudden exertion may be to stretch or tear these. This is particularly likely to follow if the appendix is placed posteriorly and contracts adhesions to the fascia over the psoas muscle.

The structure and position of the process also lay it open to inflammation from very slight causes. It is a degenerate organ, having practically no function in man, and being apparently of no use. It has, therefore, a very small blood supply, derived in the male sex from one single twig of the ileo-colic artery; in the female there is a small additional supply from the right ovarian trunk, and it is possible that this may explain the fact that appendicitis is nearly four times as common in men as in women. Then, again, the appendix is entirely surrounded with peritoneum, being attached to the cæcum by a definite mesentery or meso-appendix, and hence it is freely movable. Its length varies considerably, but in all the cases that I have operated on it was long, at least three or four inches, and thus its mobility and length permit of its being doubled over or displaced in such a way as to cause it to kink, or to lead to obstruction of the nutrient artery. In furtherance of this idea, the fact may be mentioned that one usually finds the appendix on operation doubled on itself, any perforation present being located either at the convexity of the kink, or at the tip, the spot one would expect to atrophy if the nutrient vessel were obstructed.

In all probability the direction taken by the appendix is an important ætiological factor, since if it is directed downwards and backwards, it is much more likely that fæcal material will find its way into it; certainly the impression received by me from the operations that I have undertaken and seen, is that the appendix is usually found behind the cæcum and directed more or less downwards. The *Bacillus coli* is a constant inhabitant of this cul-de-sac, and should the communication with the intestine become obstructed, it is easy to see that another potent predisposing element is added to the picture.

Turning now to pathological anatomy, it is essential to realise that the trouble is from the first of an infective nature, due to the migration from the intestine of organisms, prominent amongst which is the *Bac. coli communis*. Not unfrequently ordinary streptococci are also present in

* Sent by the Author for publication in the Record.

the early stages, but it has [illegible] the bacilli usually gain the upper hand in [illegible], and unquestionably in cases that come to operation. The latter organisms make their presence [illegible] evident by the penetrating odour of the pus. The germs attack the walls of the appendix, and find their way into the abundant lymphoid tissue present in the submucous tissues; there they develop, and possibly an intra-mural suppuration is the result, the walls becoming yellow from many purulent foci. In other cases ulceration or gangrene rather than suppuration occurs, and then the peritoneum is quickly affected, and according to the rapidity and virulence of the attack, a localised or diffuse peritonitis results. It is on the extent of the peritoneal complication that the prognosis of any particular attack chiefly turns, and from this point of view three main divisions of acute appendicitis may be described: (1) that associated with merely a plastic peritonitis, leading to adhesions, but not resulting in purulent infection; (2) that in which a localised abscess develops, which is always primarily intra-peritoneal, and limited by a zone of protective adhesions, and (3) that accompanied by an acute diffuse peritonitis. In both of the latter divisions the appendix is likely to be in a condition of ulceration, perforation, or gangrene.

It must not be imagined, however, that the only dangers of this affection are due to the peritoneal trouble. A very important and serious element exists in the fact that the venous system is occasionally infected, and that pyæmia may result therefrom. The venules in the meso-appendix become thrombosed, either by direct extension from the inflammatory focus in the walls or by the kinking or torsion of the process, the thrombus being secondarily infected from the bowel. Emboli are detached from this and carried up to the subdivisions of the portal vein in the liver, leading to portal vein pyæmia or pylephlebitis, as evidenced by high fever with recurrent rigors and distinct hepatic tenderness; true general pyæmia may subsequently develop. Another venous complication that may arise is thrombosis in the iliac veins, leading to the so-called "white leg"; this is probably due to pressure of an inflammatory mass upon the venous trunks in the iliac fossa. In addition to all these phenomena it must not be forgotten that toxæmic symptoms of a marked character manifest themselves, and that a considerable depreciation of the general powers quickly ensues from this cause, and may render an operation fatal which, undertaken under more favourable auspices, would have been successful. Some months back I was called in to operate on a young lady who had been allowed to remain in a febrile state for six weeks with a large abscess in the iliac fossa; at the time of operation there were additional symptoms of peritoneal invasion, but although the proceeding was a simple one, and the abscess easily found and opened, yet the shock was sufficient to produce a fatal issue from cardiac failure. At any time during the preceding six weeks an operation would have been justifiable and probably successful, but the condition of general asthenia from continued toxic poisoning sufficed to turn the balance in the wrong direction.

Into the *symptomatology* of appendicitis space forbids me to enter at all fully, but a few points suggested by some of my cases must be alluded to. The general features of an attack [illegible] the usual clinical picture is [illegible]. [illegible] onset of pain referred to the right iliac fossa, [illegible] fever, vomiting, and constipation, are the cardinal phenomena. On careful examination patients usually refer their pain to what is now known as McBurney's spot, *i. e.* a point $1\frac{1}{2}$ inches inwards from the anterior-superior iliac spine along a line drawn from it to the umbilicus, and corresponding with fair accuracy to the attachment or base of the appendix. The pain is increased on any movements of the abdominal parietes, and hence the right leg is usually kept well flexed, and the overlying muscles rigidly contracted. The fever necessarily varies with the character of the attack, rarely running above 101° in the mild cases; in an acute localised abscess the temperature at first is often very high, but it is not at all unusual to see it drop in a few days, probably as a result of toxæmia; in patients with diffuse peritonitis there is frequently but little pyrexia, the temperature not rising much above 101°. On palpation one frequently finds a mass occupying the right iliac fossa, which consists of coils of intestine matted together over and around the inflamed appendix. It is sometimes tympanitic, but may be quite dull. The outline of this mass is likely to be blurred and indistinct if there is much concurrent distension of the small intestine, and in cases where the appendix lies behind the cæcum there may be neither dulness nor tumour to be detected.

The formation of an abscess is not necessarily associated with any increase either of the local or of the general disturbance, and one must never be tempted to wait for fluctuation before determining as to the necessity of an operation. Thus in one of the cases I have already alluded to, the patient was taken ill on the Friday night; the temperature was high, and there was continuous vomiting and constipation. He was carefully treated, and when I saw him on the following Wednesday the temperature had fallen to the normal, the vomiting had ceased, and a natural motion had been passed. The abdomen was tense and tympanitic, but not particularly tender; the only symptom that caused much trouble was hiccough. Naturally one concluded that the stress of the inflammatory mischief was over, and that the distension would be relieved by evacuation of the bowels. This was undertaken by means of enemata and calomel, and the hiccough ceased, although the distention continued, and on Saturday, when I saw him again, was as marked as ever. Operation was then decided on, and on raising the cæcum from its bed an abscess of some size was found, connected with a kinked and perforated appendix.

The direction taken by the pus necessarily varies considerably with the position of the appendix; if it is situated on the anterior aspect of the cæcum, the abscess tends to point through the anterior abdominal wall, causing it to become red and œdematous. If, however, the appendix is located behind the cæcum, the pus may remain limited to one of the pouches behind that viscus, or if allowed to collect in any quantity may burrow in several directions. Thus it may perforate the posterior layer of serous membrane, and get into the retro-peritoneal tissue, either coming to the surface just above the iliac crest, or travelling up behind the peritoneum to point below the ribs, perhaps on the

[illegible] or [illegible] the consti[illegible] simulating a sub-[illegible] disease. Another fact of importance must be remembered, viz., that a retro-cæcal abscess may burrow downwards behind the rectum and form a large intra-pelvic collection of pus, particularly when the appendix is directed inwards and downwards, as is so commonly the case. Under these circumstances pain and tenderness can be detected on rectal examination, and this means of investigation should never be neglected. In one of my patients there was no sign of local tenderness on examination of the iliac fossa, but distinct pain was elicited on making a high rectal examination, and on operation an abscess was found behind the cæcum, and tending to spread downwards.

Turning now to the subject of *treatment*, one is at once confronted with the much vexed question as to the circumstances under which operation ought to be undertaken. On the one hand there is the extreme American school which teaches that every case should be treated actively by the surgeon within twenty-four hours of the onset, and on the other may be ranged the vast proportion of British practitioners who still persist in the belief that operation should only be performed late in the course of the case, and when definite suppuration or peritonitis is present. There is much to be said on each side, and facts and figures could be quoted upholding the ideas of each school of thought. Figures are, however, proverbially untrustworthy, and readily twisted to prove anything. The subject needs to be approached without bias, and exaggerations on each side must be avoided. Two or three introductory facts must ever be kept in mind:

1. There is a considerable proportion of cases which get perfectly well under ordinary medical treatment. We grant that point, say the advocates of operation, but at what risk! and how prone these cases are to relapse!

2. The statistics of cases admitted into surgical wards for operation have been very unsatisfactory, the mortality being terribly high. This, again, must be admitted, but the explanation is not far to seek. The high mortality of operations for appendicitis is due to surgical assistance being sought too late; either the general peritoneal cavity has been infected before operation, or the patient is so profoundly poisoned or so much exhausted by the preceding inflammatory phenomena that the shock of the operation is sufficient to destroy his life.

3. When acute general peritonitis exists there can be no question as to the method of procedure which holds out the only hope of cure, viz. operation, but unfortunately the prognosis here is only too unsatisfactory; very few of the patients attacked in this way will be saved.

4. Another important point to remember is that no one can exactly anticipate the course which will be taken by any particular attack. All the different types start very much alike, and the uncertainty that enshrouds the prognosis is one of the most important arguments in favour of early and active interference; in other words, the surgeon ought to operate whilst the disease is limited and has not got out of hand.

[illegible], therefore, on the one side the mild cases that only require medical treatment, and on the other those fulminating cases of acute peritonitis which are certain to be fatal, apart from early and energetic surgery, and omitting entirely any consideration of chronic relapsing appendicitis, there still remains a large group intermediate between the two forms, characterised by well-marked local and general phenomena, the outcome of which is always a matter of anxiety. It is in these patients where the temperature runs high, where the local tenderness is excessive, where vomiting and constipation are urgent, and perhaps a distinct swelling forms in the iliac fossa, that surgery is so valuable at an early stage.

The considerations that have led me to take up a definite position in favour of early operation are very numerous, and some of them have been already alluded to.

1. One can never be certain that the infection of the peritoneal cavity will be limited to the neighbourhood of the appendix. A zone of strong adhesions may develop, but the practitioner can never be quite positive as to this point; and even should they form, it is always on the cards that they are incapable of checking the onward progress of the infection. Early operation and removal of the appendix will in careful hands prevent any such catastrophe.

2. If the disease is allowed to run on, the patient's general condition rapidly depreciates as a result of toxæmia; cardiac failure is a consequence of late operation, and is probably due to the influence of the toxines on the heart muscle. The shock produced by an early operation is comparatively slight, and the fact that several American surgeons have been able to publish lists of hundreds of cases operated on early with a mortality well below 5 per cent., speaks eloquently as to the value of such a proceeding.

3. The removal of the appendix is always a desirable step in the operation, but when such is delayed until a well-marked abscess has formed, removal often becomes impossible. The appendix is frequently embedded in the abscess walls, and even if found its walls are rotten and friable, so that in some cases all one can do is to tear it away, or perhaps ligature its base, at the same time expressing a pious hope that a fæcal fistula may not follow. Moreover, it must not be imagined that an inflammatory attack, sufficiently intense to cause an abscess, is always capable of determining occlusion of the appendix and a consequent immunity from the risks of recurrence. It has been shown by STIMSON and others that relapse under these circumstances can not only occur, but that the appendix may be found free from adhesions; and certainly in one of my own cases this condition was present. I had opened an acute appendix abscess in a woman, and was unable to find and remove the process; the wound was allowed to heal by granulation, and a year or two later I had to operate again for a ventral hernia which had developed. The peritoneum was opened, and I took the opportunity of investigating the state of affairs in the iliac fossa; the appendix was then found free from adhesions, but thickened, and with its intestinal end stenosed; at the apex was a bulbous dilated portion containing offensive mucoid secretion, which was certain sooner or later to have lighted up another attack.

Early operation enables one to remove the appendix in almost all cases. The adhesions present are slight, and are easily separated without causing much bleeding; the matting of the parts together is so limited that one can

readily reach the focus of the mischief; the appendix itself is usually firm enough to enable one to amputate it satisfactorily, and therefore a fecal fistula is less likely to form; the operation need last but few minutes, and hence shock is minimized; the incision can often be much shorter, and the wound, even if it cannot be safely closed entire, need not be left widely open for the removal of gauze stuffing, and therefore the risks of the subsequent development of a ventral hernia are much less.

Again, relapses are entirely prevented, and the necessary limitation of diet and exercise, which is such an important measure after the cure of a bad attack of appendicitis by medical means alone, is not required. The patient is left quietly in bed for three weeks or more, according to circumstances, and at the end of his convalescence returns to his ordinary avocations without any prolonged period of medical supervision.

It must be clearly understood, however, that what is meant here by early operation is a proceeding which is more nearly akin to American ideas than to those usually held in this country. TREVES, whose reputation in this branch of abdominal surgery is well founded, states that in his opinion operation, though justifiable on the fifth day, is rarely needed during the first week, and that the essential feature in this treatment consists in "a free incision down to the inflamed area as soon as there is evidence that suppuration has taken place" (CLIFFORD ALLBUTT'S 'System of Medicine'). With this opinion I cannot agree. The facts brought forward by me above are to my mind quite sufficient to justify the surgeon in *anticipating suppuration*, and I cannot but believe that a more frequent recourse to operative proceedings would diminish the death-rate of this disease. Certainly one has often regretted delay in treatment; I have never known or heard of a case where one could be blamed for operating too soon. Hence the rule of treatment which I would submit as justifiable is—*That if under suitable medical measures the condition is not at a standstill or actually improving at the end of forty-eight hours, operation should be undertaken.* Of course there are exceptions to every rule, and this must not be taken as a rigid, inflexible dogma; exceptions to it will occur, and must always be allowed for. The surgeon under these circumstances will not wait for œdema or congestion of the abdominal wall, or for the existence of fluctuation. The patient when first seen is put to bed and kept absolutely quiet. If constipation has been previously well marked, an enema should be administered to clear away irritating material from the lower bowel. The diet is restricted to fluids, and possibly if vomiting is very urgent rectal alimentation may be needed. Hot fomentations should be applied to the lower part of the abdomen, and a little morphia ordered. This treatment should continue for forty-eight hours, unless signs of general peritonitis are already present; if the symptoms persist or are becoming aggravated at that time, operation should be resorted to without hesitation. As particularly bad signs may be mentioned (i) a rising temperature, (ii) a falling temperature with increased rapidity of the pulse, indicating a steadily progressive toxæmia, and (iii) the existence of hiccough or fæcal vomiting.

As to the details of the operation, space forbids me to give more than the baldest outline. The incision is an oblique one, corresponding to the fibres of the external oblique, and located nearly parallel to Poupart's, most and above its outer third; it should pass through McBURNEY'S spot. The abdominal muscles are then divided, and the peritoneum opened; the greatest care should be taken in incising this latter structure, as the cæcum may be intimately adherent to its under surface, and then runs considerable risk of being injured. In some cases the appendix will at once present, but not uncommonly it has to be carefully looked for. Possibly the omentum is adherent across the face of the cæcum, and must first be detached or divided. The cæcum is then gently lifted from its bed, and the appendix is very commonly found behind it. Some assistance may be gained by remembering the fact that the three bands of longitudinal muscle fibres converge to form the outer muscular coat of the appendix. When once found the process is freed from its connections, the meso-appendix being, if need be, ligatured and divided. Sometimes all one can do is to tie the base of the appendix with a silk ligature; but if practicable, a definite amputation should be undertaken. The serous and muscular coats are divided by a circular incision about one centimetre from the cæcum, and turned back like a cuff from the central tube of mucous membrane. This is then ligatured, divided, and purified by touching with pure carbolic acid; the sero-muscular cuff is then drawn forwards again and sutured securely over the divided mucous membrane.

The question of drainage cannot be treated dogmatically; the character of one's practice must depend upon the case. If pus has been present, it is probably wise to insert a large tube, and stuff strips of gauze into the interstices of the wound around it; but if suppuration has not occured, the tube may be dispensed with, and merely a gauze packing utilized, the amount of which is dependent on the condition of the appendix and the probable extent of the bacterial invasion. The closure of the wound will also vary considerably; the larger the amount of stuffing, the fewer the stitches which are inserted.

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BRIEF NOTES ON THE PRACTICAL ANATOMY OF THE SHOULDER.*

BY THOMAS H. MANLEY, M.D.
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THE writer has been led to undertake a brief study on the above subject, chiefly for the reason that the anatomy of those parts, as set forth in most text books and works on surgery, is in many essentials misleading, unsatisfactory and indefinite; nor can one find in any published work a full and accurate description of the structures within the shoulder-girdle, or those structures contiguous to, or in juxtaposition with, it.

At the present time, when the remarkable advances in the science and art of surgery have permitted the inclusion of every structure in the complex mechanism of the shoulder within the domain of radical surgery, in order to take proper advantage of this, something more than a general knowledge is requisite, where precision and accuracy are required. Until the [illegible] epoch

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[illegible], [illegible] structure, it is well [illegible] to [illegible] the [illegible] of great violence and [illegible] it with [illegible]. But [illegible] operating, and [illegible] are possible, and [illegible] of [illegible] procedures has been [illegible], the shoulder is one of those exposed regions of the trunk, to come within the range of [illegible] surgery for the relief or cure of many lesions or diseased conditions, which in the near past were regarded as hopelessly incurable.

Mode of acquiring Special or Practical Anatomy.—We acquire a knowledge of practical anatomy of a region in various ways :—

(1) By the aid of treatises on anatomy. This affords us but a relative and indefinite knowledge, because many illustrations are defective, because different authors give different names to the same structure, and finally, because deviations in development are found in nearly every subject.

(2) Dissection on the cadaver—dead anatomy—is the most valuable of all methods in the study of anatomy.

(3) The study or the living anatomy is something too much neglected, but of great value. In muscular subjects, devoid of much fat, muscular movements at the shoulder may be studied with advantage.

(4) A study of comparative anatomy, combined with dissection of the lower animals. No one can pretend to a general knowledge of anatomy who has not given some attention to this side of the subject.

(5) By vivisection only can we learn physiological anatomy. This is of inestimable value, if for no other purpose than acquainting ourselves with the mechanism of the parts in motion. Surgical operations are a species of vivisection, and hence, the oftener the surgeon operates the better practical anatomist he becomes.

All of the above is germane to our subject, for, everything else considered, the more thorough anatomist the surgeon is, the more valuable his opinion and successful his treatment of shoulder or other lesions will be.

Physiological Anatomy of the Shoulder.—The shoulders in man hang suspended from the spine. They afford shelter and protection to the viscera of the upper areas of the thorax; defend the cranium, spine, and chest against injury, and are concerned in prehension.

A striking peculiarity here is the triple arrangement, the vicarious function of various structures, and atypical construction,—three special and definite characteristics.

Thus, there are three bones in the skeleton of the shoulder, three joints, three large superficial muscles, each with three separate heads or origins for the superficial layer; there are three large nerve-cords in the brachial plexus, below the clavicle.

The central segment of the deltoid muscle is rich in fibrous tissue, as is the brachial plexus, and hence both serve as auxiliary ligaments.

All the joints are singularly atypical; the costo-scapular, [illegible] neither synovial membrane nor ligaments; the [illegible], being without independent ligaments [illegible] the claviculo-scapular, having no [illegible].

The [illegible] so placed and so [illegible] as to [illegible] violence to the upper part of [illegible]

The marked and complex mobility of the shoulder is a most salutary provision against serious injuries.

When time or warning permits, in an instant the shoulder on one side, or both, is instantly [illegible] in such an attitude as to best divert the impending shock from the body. It is, therefore, a powerful movable shield.

The Shoulder Skeleton.—The scapula or [illegible] serves for the insertion of those muscles which move it and secures a fixed fulcrum for the leverage of the humerus. Its neck and apophyses are quite exclusively concerned in providing lodgement for the head of the humerus and giving origin to those muscles which act on it.

The clavicle or collar-bone presses the scapula away from the central plane of the body, and contributes to the square outline of the shoulder. It therefore serves the purpose of a horizontal prop, but in no manner contributes to strength or motion, as it is wanting in those quadrupeds of the greatest power and agility, and, moreover, it has been lately demonstrated that its excision but slightly, if in any degree, impairs shoulder-action.

The humerus, by its greater tuberosity or *outer head*, imparts a fulness and rotundity, continuous with the sloping ridge of the acromion process. The large humeral head, the *inner* or *articular*, has but a narrow, nearly flat surface to move on; yet, its indirect osseous cavity is spacious, and hence the head of this bone is more deeply lodged than that of any other shaft in the body.

The articular head of the humerus, in the erect attitude of the body, is inclined inward and forward, and has a very wide range of action.

Three points of great practical importance should be carefully noted in the above,—*viz.*, that there is *no* shoulder joint, but shoulder-*joints*; that there are *two* heads at the scapular extremity of the humerus, the *external* the greater tuberosity, being susceptible to palpation, the true articular head being always deeply concealed; and that the clavicle is not essential to full functional strength of the shoulder.

The Nerves of the Shoulder.—The principle nerve-supply of the shoulder is from the cervical and brachial plexus. The brachial plexus is of great surgical interest, not only from the aspect of its divisions in their relations to important structures, but because of the contributory support which they provide to the inner aspect of the shoulder. The three large nerve-cords in the third stage of this plexus have a considerable proportion of fibrous tissue in their sheaths and their interfascicular septa; they are of remarkable tensile strength, and must be regarded as important auxiliary ligaments in supporting the anterior segment of the shoulder. TILLAUX found, on experiment, that each cord was capable of maintaining about thirty-eight kilogrammes weight,—about 100 pounds.

Synovial Pouches or Bursa.—Extending from the summit of the glenoid fossa outward to the upper ridge of the anatomical neck of the humerus is a board, deep synovial sac, usually designated the "subacromion bursa." It is evidently formed by a reduplication of the superior wall of the capsule, although its upper [illegible] is firmly

[illegible]

[illegible] considerable [illegible] of the humeral [illegible] especially to dimin- [illegible] arm encounters [illegible] head of the humerus [illegible] or backward.

[illegible] of the subscapular muscle [illegible] the coracoid process forward is [illegible]

[illegible] so lodged as to diminish friction [illegible] head is forcibly rotated outward and [illegible] is put on a strain; [illegible] when the head is rotated inward, it is so mobile [illegible] to interpose itself between the inferior [illegible] coracoid process and the greater humeral [illegible] hence it serves an important physiological purpose. Effusion fluid in every instance, in my [illegible] passed freely from this pouch to interior of the humeral capsule. In my experiments on the cadaver, it was found that these gauze-like sacs were capable of very considerable distension, alteration in shape, and relative position.

When the acromion and the clavicular divisions of the deltoid were divided and the humeral head left its usual position, it was found that the subacromion bursa could be so distended with fluid as to offer a positive mechanical impediment to anything like complete reduction.

From this experiment of inducing mechanical effusion, it is reasonable to believe that after various types of contusion of the humero-scapular joint such acute bursitis with large effusion may result as to constitute [illegible] obstacle to reduction, until the inflammatory elements have undergone resorption. Possibly, in some instances, during violent efforts to return the displaced [illegible] the distended inflamed bursa may rupture, but [illegible] occur on the cadaver experimentally.

The Humero-Scapular Joint.—This articulation presents [illegible] remarkable features in its anatomical construction.

(1) In being an articulation of great strength, and yet having almost no articular surface for the humeral head to play on.

(2) While the head of the humerus comes directly in contact with only a narrow, scanty flat, osseous surface, yet above and posteriorly it is well sheltered and powerfully protected by the broad, osseous plate of the acromion process.

(3) The capsule is remarkable for its looseness, elasticity, capacity, and toughness. It receives many auxiliaries of dense fibrous structure from the tendon of the [illegible]ularis, the teres minor, and the broad aponeurotic [illegible] over the acromion process.

(4) [illegible] a range of action in particular, the humeral head [illegible] the scapula [illegible]

[illegible] this, as [illegible] consideration.

Much has been [illegible] ing dislocations at the shoulder [illegible] only be settled by an appeal [illegible] when we must recognise that [illegible] *physiological* dislocation and [illegible] *plete* dislocation, when the articular head of the [illegible] has separated from the glenoid fossa, *partly*, but [illegible] *within the capsule*. Strictly speaking, the articular [illegible] is somewhat *displaced* but there is no true dislocation.

It is time, in the interest of science, that [illegible] and surgical teachers explain what they mean by the "head" of the humerus. Which head? The [illegible] or trochanter, being superficial, while the [illegible] *internal*, the true head, is everywhere quite impossible to detect by palpation.

These few and many other anatomical points must be now fully and definitely elucidated by anatomists before anything like a precise knowledge of those [illegible] involving the shoulder is possible.

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TORPOR INTESTINORUM - (CONSTIPATION) ITS CAUSES AND TREATMENT IN INDIA.

By Surgeon-Major R. E. Wrafter,
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Constipation, or costiveness, is that condition of the bowels in which the stools are less frequent and less in amount than in the healthy state. This is among the most common of all minor ailments for which the advice of the doctor is sought. A faulty diet and sedentary habits are the main causes of its production. Constipation may be either occasional or habitual. In certain persons there exists a marked constitutional tendency to constipation of the bowels, and in such, while the condition, with its attendant discomfort, may be partially relieved, it not unfrequently happens that it cannot be altogether overcome. The direct or immediate causes of constipation most frequent in their operation, are failure in the contractile power of the muscular coat of the bowels, or perhaps more strictly speaking, a want of nervous power in the spinal cord ("power" which sets [illegible] the muscular coat of the bowels), and an [illegible] quality or diminution in the amount of the [illegible] fluids which serve as alvine stimulants; [illegible] is the chief in importance. In old age [illegible] system of the body has become weakened and [illegible] quence, costiveness results. Let it be [illegible] a very considerable variety exists in [illegible] val at which passage from the bowels [illegible] individuals. While, undoubtedly, [illegible] have one evacuation in the course of twenty-four hours, there are [illegible] see a few whose bowels [illegible] regular [illegible] of third day, and [illegible]

[illegible] various dangerous symptoms. [illegible] been made to the well-known [illegible] in those who follow sedentary [illegible] also liable to be induced by whatever [illegible] the system generally, as excessive exer[illegible] fatigue, however occasioned, while habit, [illegible] as important an influence in its produc[illegible] any other cause. It is a very unwise proceeding [illegible] the calls of nature; so doing, the lower bowel [illegible] as it were, habituated to the distension which is [illegible] by the accumulation of feculent matter, and [illegible] is directly induced.

[illegible] the function of the liver is in any degree suspended, and healthy bile does not reach the bowels in due amount, there exists a fruitful source of constipation; hence the absence of the biliary color from the stools, which is so often noticed in those who suffer from constipation, and specially in children. The sufferer from costiveness is subject to various uneasy and oftentimes distressing sensations, both in the bowels themselves and at a distance from them, headache, lowness of spirits, derangement of the stomach, failure of appetite, are among the most common and ordinary of its effects. Sometimes we observe thoracic symptoms emanating from such a source, such as tightness across the chest, difficulty of breathing, and a hard, dry cough. These effects of constipation are probably referable to distension of the great arch of the colon, and consequent impediment to the free motions of the diaphragm. At other times the mucous membrane of the colon and rectum chiefly suffer, and the result is piles. It is well to observe that some individuals suffering from torpor of the large intestines state their bowels are regular, simply because they go to the closet every day, when in reality they suffer from habitual constipation. As they only pass small lumps of hard fæces, occasionally also, there may be straining, and the hard lumps may be passed with a little watery discharge, the result of the irritation they cause; this is often mistaken for diarrhœa, instead of being recognized as the effect of constipation. A very [illegible] condition from which the pregnant female [illegible] is a constipated state of the bowels. It is a very [illegible] affection, and is due partly to the mechani[illegible] which the enlarged womb exercises upon the [illegible] and partly to "defective innervation of the [illegible] from the altered state of the blood."

[illegible] may be greatly retarded by an over[illegible] of the bowels, and as the danger both to [illegible] increases with delay, the risks become [illegible] will be a state of least deper[illegible] labour will, in all probability [illegible] along with attention to [illegible]

[illegible] In [illegible] remedies. Among the [illegible] is usually efficient, and it is [illegible] form of liquid extract, sulphate of magnesia [illegible] powder, are others which may be employed. [illegible] in the operation of the purgative [illegible] may be administered, consisting of [illegible] with a little castor oil and simple [illegible] should be sufficiently large to [illegible] for this purpose a pint of fluid [illegible] woman have an objection to the [illegible] for the relief of constipation, and will [illegible] gative medicines than have recourse to it, this [illegible] is altogether unfounded. If a proper instrument [illegible] it will give rise to little trouble; it can be [illegible] the patient herself, and in its action it is painless. [illegible] when purgative medicines have been taken by the [illegible] for some time, they lose their effect, and the dose [illegible] be increased, opposition to the entrance of the [illegible] well as the ineffectual administration of laxative [illegible] by the mouth, may reveal the impaction of the [illegible] by hardened fæces. Such being the case, a finger or the handle of a spoon should be introduced into the [illegible] and the mass thus broken up. In the treatment of habitual constipation, something more than a resort to the use of laxatives is to be advised, indeed, the adoption of the former plan alone is to be discouraged. There is such a thing as a laxative diet, and this the patient should adopt, coarse bread is preferable to that made from the fine flour of the wheat grain, brown bread to white. Fruits in their seasons, unless known to disagree, may be moderately indulged in. Vegetable food is decidedly more laxative than animal, specially the [illegible] or juicy vegetables, and such should be [illegible] cretion. Oleaginous and fatty articles have also a [illegible] tive effect; olive oil, butter, the fat of [illegible] this denomination. In addition, at every meal, and specially at dinner, water or some other liquid [illegible] be drunk; a dry diet tends directly to produce costiveness. Bodily exercise is an important means for overcoming habitual confinement of the bowels. [illegible] on foot is best; riding on horseback comes next, manual labour, as in gardening, for the resident in the country, or rowing, which summons all parts of the body into active use, make good substitutes. A glass of [illegible] taken every morning on rising; or [illegible] upon waking often acts beneficially. [illegible] advise rubbing the abdomen with [illegible] this answers as a rule only with children [illegible] and regimen fail to produce the desired [illegible] are not to be neglected; on the contrary [illegible] strict attention to both, the [illegible] is [illegible] simple and safe [illegible] be considered, first of all, the [illegible] of a [illegible] quantity of warm water into the bowels. In [illegible] may be employed [illegible]

[illegible] of the bowels. Of [illegible] aloes [illegible] which the hardened [illegible] brought down to the lower part of the bowel. When this does not [illegible] laxatives [illegible] by the mouth. [illegible] of these, the simplest be regarded as the best, and attention always be paid to the precise circumstances of the patient. If there is acidity of the stomach, a little magnesia carb, or soda bicarbonate may suffice to produce the desired effect. Sulphur in the form of Compound Sulphur tablets, containing sulphur and cream of tartar, is another remedy easily taken, and specially useful where there exists any tendency to piles or irritation about the seat. If a deficiency of bile, as evidenced by the pale colour of the evacuations, seems to determine the constipated habit, then, an occasional dose of calomel or blue pill may be required; but an appeal to the liver by Cascara Sagrada, in the form of its liquid extract, continued for a little time, will scarcely fail to do good. The best remedy, extant, for habitual constipation, is Cascara Sagrada, which is now prepared in perfectly tasteless form by manufacturing chemists. This medicine may be taken regularly for months without losing its effect, and the dose does not need to be increased after taking for a time. Half to one teaspoonful morning and evening, or thirty to forty drops of the tasteless Cascara Sagrada three times a day, in habitual constipation, will be found to establish a habit of perfect regularity, which is the best preventive against a recurrence of the complaint, superadded exercise as above stated and regular habits are also very useful.

If the contractile power of the bowels themselves be enfeebled, as it often is, then a small quantity of the extract of Strychnos Nux Vomica (1/4 to 1/2 a grain) in combination with rhubarb or aloes is a useful remedy, the nux acting specially on the nervous system. The ordinary compound rhubarb, or colocynth pill of the Pharmacopœia, or a well known nostrum sold as Lady Hesketh's pill, have often proved serviceable. Medicines taken for the purpose now under consideration, should be administered shortly before meals, all violent medicines must be carefully guarded against during pregnancy as they tend, from the disturbance to which they give rise, to produce miscarriage.

It should be recollected that the proper stimulus to the periodical motion of the bowels is food perfectly digested. Instead, therefore, of constantly resorting to purgative medicines to relieve constipation, it is better to accomplish the object by care in not eating hurriedly, so that the food may be well masticated, by some change of diet, and by attention to the teeth if necessary. Persons suffering from habitual constipation should be warmly clad, and during summer as well as winter wear flannel over the chest and abdomen.

THE GREAT OMENTUM, [illegible] REFERENCE TO THE [illegible] IT IN INFLAMMATIONS OF THE ABDOMINAL VISCERA.*

By J. G. Adami, M.A., M.D.,
Professor of Pathology, McGill University and Pathologist to the Royal Victoria Hospital, Montreal.

Though the professional world is practically deluged with literature upon the other organs, we learn from the Index medicus that not two papers per annum have been published of which the main subject has been some one or other condition of the great omentum to which the ancient priesthood attached so much importance, as it was the ominous organ of the augurs, every aspect of which, studied by them, was found full of fate, and strangely enough though modern writers have very little to say regarding the omentum, we find on passing to the limits of medical history that among many other things which are nearer (if not the whole) truth, Hippocrates notes that if the omentum protrude it necessarily mortifies and drops off. When writing about exudations he says,† "In fever the spleen becomes enlarged, increasing in size as the body becomes emaciated. Indeed everything that causes the spleen to be enlarged consumes the body. When the body becomes emaciated if the spleen be swollen and the great omentum attenuated at the same time as the body, then the fat which was in the omentum is dissolved and when the organ is free from fat the growing spleen furnishes a flux and the omentum which is close by, which has vessels and those vessels empty, receives that flux."

The wise old Malphigi commenting upon this passage where the physician of Cos. implies that this flux is dropsical, carries the connection to its natural conclusion and definitely suggests that from the omentum the flux may pass into the abdominal cavity and be a cause of dropsy. Landgraf, who made a suggestion,‡ in 1870, of the great omentum, being largely responsible for the exudation of ascitic fluid, tells how he was compelled to perform paracentesis (with a lancet and tubing) on a case of intractable ascites associated with heart disease, and in whom the abdominal distension was so great as to threaten immediate danger to life. As a result a hernia of the great omentum developed at the incision and true to Hippocrates' aphorism the protruding tissue sloughed off and within a few days the ascites came to an end, and 23 years later Dr. J. F. W. Ross,§ who arrived at a similar conclusion, says that Professor Lawson Tait holds like opinions.

To Aristotle we owe the commonly accepted opinion which Galen|| expanded and transmitted through ages to the present day, of the great omentum being formed of light membranes and so placed, covering the intestines as "to preserve the innate heat of the body;" but while he is extremely cautious of attaching any function to the viscus of heat preserving, Malphigi leans to the conclusion that fat which is important to the economy is taken up from the intestines and stored in the great omentum and other regions for further use.

* Being the abstract of a paper [illegible] Society and specially abridged for this Record.

† [illegible]

‡ Deutsches Archiv. für [illegible]

§ American [illegible]

|| Galen. [illegible]

[illegible] in size and at times seems almost [illegible], the first impression is that it is of relatively little [illegible] and [illegible] considerable, but if the mass of delicate membrane be unravelled it is most often found to be quite extensive and Durham¶ points out that in rabbits and guinea-pigs, in which peritonitis has been induced, the omentum becomes rolled and folded up, and he also notes observing a similar condition in a young child.

While such rolling up does occur in association with acute peritonitis, that it is far from being a form of constant condition is shewn by the fact that in 21 cases only out of 150 consecutive autopsies did I find it rolled or folded up. Thus it was coiled :—Under the transverse colon in 10 cases, under the stomach in 1, in front of and above the transverse colon in 5 and lying over the transverse colon to the left in 2 cases while in 1 case it passed up under the liver and in 2 cases it passed up over the liver without adhesions ; but we are at a disadvantage in studying this organ in man as most of the human subjects of the pathologist and anatomist have either been bedridden for some time or have died from disease of the abdominal cavity, and where the omentum has been found coiled up, the subject has in most cases been supine for some little time during which it is probable that this floating membrane becomes liable to assume relationships which would rarely be found in those suddenly killed.

The "protective apron" theory must be put aside as there is no inverse relationship between the development of the heat retaining panniculus adiposus and the development of the omentum whose all important histological and physiological feature is its structure, whose vascularity is altogether in excess of the needs of the membrane itself, and if the great omentum has any special function that function must be sought for through the vascular system.

As may be expected with the branching of the main vessels the finest and most delicate vessels are largely collected along the periphery and along the free border of the omentum, which, without any exaggeration, may be regarded as a mechanism for supporting and keeping in position a rich arborization of delicate vessels separated by as slight a cell layer as possible from the peritoneal cavity, and here it is therefore that the most prompt reaction is liable to occur. From this abundant net work of delicate vessels there may be abundant flow of fluid into the abdominal cavity, and similarly the rich system of contained lymph-spaces and lymphatic vessels as well as of blood capillaries may be the means of rapid absorption of fluid from the same cavity.

The 150 autopsies referred to were held in *P. M.* theatre of the Royal Victoria Hospital in whose annual reports for 1894 and 1895 will be found the pathological diagnosis of these cases.

Among these were several instances of generalized omental *adhesions to the abdominal walls* either plastic and acute or fibroid and chronic in cases of recent or old generalized peritonitis, and several also of localised adhesions along the sites of operation wounds. Though there were subserous tubercles of the ileum in 2 cases of tuberculosis where the viscus had adhered along the pubic crest anteriorly there were no adhesions of the under aspect to the intestines. In [illegible] instances of previous several peritonitis that had not been operated upon, 4 showed old adhesions in the left flank, 2 in right flank over ascending colon and 2 to the parietal peritoneum on under-surface of ribs of right side. There was "adhesion en bloc" in one of 3 cases of incarcerated umbilical hernia and attachment to a secondary cancerous nodule at the navel of another. In one case a portion of the right border passing into the right inguinal canal adhered to the testes, while in another it passed downwards and adhering to the pelvic wall formed the roof of a localised pelvic abscess and arrested the generalization of a suppurative process.

Of equal interest are the localized adhesions discovered in connection with the different abdominal viscera and the intestines ; but though 150 autopsies are not a great number from which to glean positive information, especially from ordinary consecutive and unselected cases that are devoid of examples of most of the conditions of omental disease to which attention has been called by previous writers, yet they bring into strong relief the fact that the omentum may and very frequently does gain attachment to every viscus lying in the abdominal cavity. It may pass upwards to become attached to the stomach or the liver, or it may drift to the right to form adhesions over the cæcum and ascending colon in the neighbourhood of the appendix, or fall backwards to either act as a plaster over a retroperitoneal abscess or wall in a perityphlitic abscess, and, what is still more remarkable, its edge may wander down into the pelvis and become fastened to the rectum, the ovary or even to the stump of the uterus after hysterectomy

At first sight it appears that the viscus has such powers of active locomotion that as soon as any localized injury and inflammation manifested itself, some portion of the omental border—the right chiefly—forthwith formed a 'feeler,' made its way to the affected area and within a little time so adhered to it as to prevent the spread of the inflammation ; but other considerations must be brought forward before passing judgment and it is not merely a question of the quality of the inflammation that determines the adhesions : as examples are not wanting where plastic and adhesive exudations might easily have been set up, only the omentum did not manage to find its way to the injured area and as a consequence no adhesions developed.

There being no such protective sending out or wandering or chemistaxis of portions of the omentum to cover over and guard areas of injury and inflammation, it cannot be urged that the omentum broods like a beneficent providence over the abdominal contents, descending to minister help when it is needed and to arrest the spread of harmful inflammation.

For in the first place there are inflammations and inflammations and where there is very acute disturbance, or where the reactive power of the organism has sunk to a very low ebb a serous, rather than a leucocytic and fibrinous exudation obtains, and when this is the case there can be no adhesions even though the omentum be lying over the area of injury.

In the second place however great may be its temporary value in walling in and localising an acute inflammatory process by its apposition and adhesions, still the intervention of the omentum results in serious inconvenience and

¶Durham's [illegible] Pathology IV 1897 p. [illegible].

[illegible] with [illegible] in the [illegible]. [illegible] hernia of [illegible] from [illegible] pathological [illegible] Congress of [illegible] nature is [illegible] nor [illegible] obedient to law and [illegible] consistent."

All that it is [illegible] say is that, in the great omentum we have a singularly [illegible] organ capable of [illegible] to irritation that in a moribund girl, for instance, who died in [illegible] hours after suture of the [illegible] stomach wall, there was already plaster [illegible] omentum over the sutured area. That it [illegible] to organs so distant from the position in which it is usually found is an indication of what is [illegible] realised, viz. that this delicate membrane is either constantly shifting its position or that it is [illegible] liable to roll about in cases of abdominal disturbance, and though this membrane normally covers over the coils of the small intestines, it must roll upwards or downwards and in these gyrations it is that being applied to an inflamed area, its vessels become rapidly congested, [illegible] and leucocytes exude and the first stage of adhesion [illegible] up.

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THE MORAL, PHYSIOLOGICAL AND HYGIENIC ASPECTS OF THE VEDIC INJUNCTIONS ON MENSTRUATION, MARITAL CONSUMMATION AND PREGNANCY.

By N. C. Biswas, L.M.S.
Moonshestollah, *Kidderpore.*

The religious customs touching marriage are not here detailed, because with a very few exceptions the Hindu races give their daughters in marriage at a very early age, but marital relations are not permitted until the attainment of puberty by the female.

In taking up these subjects nothing is further from my mind than the slightest thought of obscenity, and I write under the firm conviction that it is the duty of every medical man to promulgate the truths underlying the sacred teachings on these matters, which control the well-being of the Indian races, which if better understood must raise the moral and physiological standard of manhood.

Reading the 'Life of Buddha,' published in Bengal, by Dr. Ram Das Sen of Berhampore, I find that the menstruating woman is considered so 'unclean' that she is forbidden to take part in religious ceremonies and strictly enjoined to neither touch nor cook anything intended for the use of Brahmins or Elders nor even to breathe the name of her 'gods' nor pollute the sacred rivers by bathing in them, until with the cessation of her period, she has (on the 4th day) purified herself by thorough cleansing of her body and sought the embraces of her lord to avoid the 'sin of [illegible].' The ovum being considered to be in a state for fecundation immediately after menstruation, and sexual restraint at that time is looked upon as an attempt to evade conception.

No matter how young she be, as soon as a Hindu girl attains puberty she performs *[illegible]* by remaining for three consecutive days and nights or for 72 hours by herself in a closed room and subsisting on simple fare. On the fourth day she is carefully washed after which she joins in the festivities and religious rites connected with *Punarbibaha* (or re-marriage) which culminates in marital consummation. This was why the [illegible] so vehemently opposed the passage of the 'Age of Consent Bill' which protected infants from violation, but at the same time delayed marital consummation for [illegible] to 7 years after the *first* appearance of the menses.

[illegible] fit for her husband [illegible] period when the *tithi* [illegible] being of the (future) [illegible] propitiatory rites are performed [illegible].

Prevention of lascivious [illegible] hardy healthy progeny being [illegible] of the *Shastras*, sexual intercourse was [illegible] forbidden:—(1) on any morning, (2) from the [illegible] day of the moon (3) with a woman [illegible] (4) within six months after parturition, (5) [illegible] during the day or early evening or till two or three hours after the evening meal, (6) during menstruation, (7) during an eclipse and (8) while assisting in the performance of certain ceremonies and religious festivities, and both husband and wife are enjoined to during coitus reverently think of Shridhara, one of the names of the bright and friendly god Vishnu, the "Unconquerable Preserver" but I regret to notice that this excellent and beneficial rule is more often violated than observed in these "go ahead" days by such of the Hindu Community who think they know more than their venerable tutors, because they have a slight veneer of English acquired in parrot fashion, and have at their very best a shallow knowledge indeed of things as they should be. And the consequence of such superficial wisdom is that the vigorous type of manhood is being replaced by enervated sordid apologetic specimens of humanity.

Pregnancy is counted from the third month after conception *i.e.*, when two full menstrual epochs have passed without the flow, and sexual congress from this time up is said to impair the vitality of the fœtus in utero, and render it liable to be born with some affection of the scalp or skin.

In her fifth month she performs *Panchamrita*, one of the essential parts of which ceremony consists in her being made to swallow a quantity of cow's milk, curds and *ghee* mixed with the urine and dung of the same animal. Sometimes this ceremony is delayed till her ninth month.

The *Kanchasad*, which some females observe in their fifth month, is usually performed in her seventh month of pregnancy, when she is allowed to eat whatever she may desire to and the popular idea obtains that if she be denied any sort of food she may have 'a longing' for at this time, that some reflex effects of that longing will manifest itself in the babe at birth. Thus an infant with frothing lips or salivating gum is considered proof that the mother was not allowed to eat 'crabs' for which she had a craving while the babe was *in utero*.

This period being looked upon as the most critical of her own existence and that of her child, the expectant mother is particularly guarded against accidents and the influence of evil spirits. She is relieved of the heavier portion of her obligations and household duties, and only allowed to do such light work as will exercise without fatiguing her body. Everything is done to render her cheerful and keep her away from mental depression or anxiety. She is advised to not use scents or perfumed hair-oil lest they act injuriously on her. Her bowels are kept clear and her diet regulated and she is fed on nourishing foods. She is cautioned against eating meat, though venison is sometimes given her. Should she remain [illegible] or emaciated, a tedious travail and difficult delivery are prophesied and a male child is expected, but if she remain or become plump or stout a girl babe and a speedy, easy delivery are prognosticated.

In her ninth month she performs the *Sadh* ceremony at which her relatives and intimate friends present her, according to the best of their means, with [illegible] and apparel. She [illegible] feast, where she [illegible] and after taking [illegible] in order, [illegible] her [illegible].

A CASE OF [illegible]

[illegible], ADHERENT RETROVERTED UTERUS, OVARIOTOMY, REMOVAL OF CYST, FIXATION OF UTERUS BY FIXATION TO ABDOMINAL WOUND: RECOVERY

By Emma E. Wallace, M.D., F.R.C.S.I.,

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Calcutta, etc.,

P.S.——, an Armenian lady, born 1874, of good physique, menstruated at 12 years of age, regular as to time, quantity and quality, enjoyed perfect health during her childhood and womanhood, was married at 15 years, had her first child 2 years later, puerperium normal, lost her husband two years ago, subsequent health good up to March 1898

Her menses before this date were regular and free from pains occurring once in 28 days. Since March the flux has appeared every 20 days and has been attended with much pain, chiefly in the left iliac fossa, which is most severe 2 days before and for 2 days during the flow This condition of things has continued for the past 6 months, the symptoms becoming more aggravated each month Constipation was a constant trouble and was very distressing during the catamenial epoch

The patient first consulted the Obstetric Physician of the Calcutta Eden Hospital in March last and was told she had inflammation and retroversion of the uterus She was placed under treatment for 5 months and was then informed that she was suffering from an abdominal tumor which must be cut out She first consulted me on the 14th of August and after hearing her case and learning that she had come to me for a definite opinion as to whether there was a tumor in her abdomen which ought to be operated on or not, I examined her carefully, and told her that there was a tumor and that it should be operated on without delay. I strongly advised her to go back to the physician of the Eden Hospital, but she flatly refused to enter that Institution for an abdominal operation, and begged of me to arrange for the same in some healthy part of the city. Dr. Feldstein who was present at this consultation and heard the patient's emphatic objection to undergoing an operation in the Eden Hospital, very kindly agreed to allow her to be treated in his house, and accordingly the arrangements for the operation were made.

The physical examination of the 14th and 18th August presented the following features

There was distinct bulging of the left iliac region, with tenderness and pain on palpation. A lump as big as a small orange could be felt, and on vaginal examination this tumour was found located in the left broad ligament. The uterus was retroverted and firmly fixed, the lump being quite 2½ inches away from the clearly defined cervix of the uterus, which though bound down by adhesions had a clear outline and was not at all enlarged nor [illegible]. The sight lint [illegible] clear, the cervix could be displaced upwards. It was clear that we had to deal with a tumour of the broad ligament, which [illegible] and apparently non-resiliency, was diagnosed as a very tense cyst or a fibroma of the ovary. The patient seemed to be in good health and the only [illegible] for an abdominal operation, was the [illegible] current severe pain and the presence of [illegible] these symptoms, with the prospect of further [illegible] of suffering and probable further [illegible] complications. The risks of the operation were fully explained to the patient and her friends, but she expressed determined wish to be relieved by such a measure.

Accordingly on the 18th August 1898 the patient was put to bed and kept on low diet for three days.

On the 21st August at 8 A.M., after the bowels had been well cleared with an enema of warm soapy water and after the room had been thoroughly fumigated with sulphur and the patient carefully prepared under aseptic precautions, she was chloroformed by Dr Z. Feldstein, and with the assistance of Dr. William Coultas, I opened the abdomen in the middle line, slit up the peritoneum, and passing my hand down into the left side of the pelvis, pushed the tumour, which was free from adhesions and was found to consist of a very much distended condition of the fimbriated extremity of the left Fallopian tube. The cyst wall was extremely attenuated and perfectly translucent, the tube was also much dilated and very tortuous, having the appearance of a twisted cord almost as thick as one's little finger. The left ovary was perfectly healthy, so also was its fellow. The fundus of the uterus was fixed in the sacral fossa and must have been a source of very severe mechanical obstruction to defæcation The fundus uteri was carefully freed from its adhesions and this gave easier access to manipulation of the diseased Fallopian tube. I carefully dissected the cyst and tube away from their attachments, leaving the healthy left ovary intact Having ligated the pedicle of the mass, it was removed, with the fortunate occurrence of not rupturing the cyst nor of allowing its pathogenic contents to escape into the peritoneal cavity. All bleeding points were carefully secured and the abdomen freely irrigated with pure boiled water. The uterus was now superficially transfixed by a curved needle armed with strong silk gut and the stitch was made to pass through the abdominal wall at the lower part of the wound. The uterus thus underwent abdominal fixation, and when the parts were thoroughly healed, it was found firmly adherent in its new position Three layers of stitches were used to close the wound, the first of sterilized silk gut through the peritoneum, the second of the same material through the muscles, and the third of silver wire through the skin. The wound was closed completely and no drainage tube was used. Boiled compresses of sterilized unmedicated gauze and cotton were used as dressings, a flannel binder covering them. Similar sterilized dressings were used subsequently. The patient rallied well after the operation her temperature rose to 100°F. In the evening but fell to normal the next day and remained so. She was fed by rectal nutrient enemata for 48 hours, and during this time was allowed small quantities of ice to suck. On the 3rd day she received milk and gruels and cold water. On the fifth day she was given light solid food. There was a natural alvine evacuation the day following the operation and the rectum was daily emptied by an injection of glycerine. The dressings were changed on the 4th day and then every alternate day. The wound healed by [illegible]

tention and the stitches were removed on the 14th day. On the 20th day the dressings were entirely discontinued and an elastic abdominal binder was worn from this date. The patient left her bed on the 21st day and on the 30th day after the operation she was able to take a comfortable and enjoyable drive in a victoria. I have seen her frequently since the operation, and it is satisfactory to note that her menstruation has come with perfect regularity and with absolute freedom from pain. I saw her last on the 4th of November, and she left Calcutta that evening on a trip to Singapore, in perfect health.

I take this opportunity to express my best thanks to Dr, Coutts for his able assistance at the operation, as also to Dr. Feldstein for his skilful management of the chloroform, and to Mrs. Derrholts for her help during the operation. I desire also to mention with appreciation the efficient services of Nurses Wool and Crosbie in the after management of the case.

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SEVERE PELVIC SUPPURATIVE CELLULITIS· RECOVERY.

By Assistant Surgeon J. C. Gillmon, L. S. A. Lond.

Offg. Civil Medical Officer, Puri District.

Manna, a Hindoo woman æt 24, about four months pregnant, came under my treatment on the 16th August. It appeared that the day before she noticed a mucous discharge tinged with blood escaping from the vagina. On examination the os was found somewhat dilated and abortion threatening and as there were no pains, Tinct. Opii m.xv, every 3 hours was given, combined with absolute rest to avert the accident, but without success, for on the following night labour pains set in, and on the morning of the 17th she was delivered of a dead fœtus, the liquor amni had the appearance of very thin pus, the placenta being apparently intact.

Matters went well with the patient until the night of the 20th when the temperature suddenly rose to 104F without previous shivering or pains of any kind Next morning there was little or no subsidence of the fever, bowels costive, furred tongue, pulse quickened and small, with tenderness over the whole abdomen, especially the hypogastric region, attention was drawn to the genital organs, the lochia was found to be foul and very offensive Antiseptic douching of the uterus and vagina every 3 hours was ordered, large, moist, warm poultices smeared with Belladonna applied to the abdomen and soda salycilas gr x, Tr. Opii m.x, aquæ ℥i was given every 4 hours, with absolute rest. The temperature ranged between 101° and 103·8°F. for the next three days, when an improvement was noticed, the morning temperature fell to 100 4°F. and the evening to 101·4°F. tongue moist and clean, abdominal pain and tenderness quite gone and the discharge per vaginam lessened and free from smell. Quinine Sulph was now pushed and given in x gr. doses t.d s. with marked benefit, for on the 26th, the general condition of the patient was decidedly better, the highest temperature being 99 6°F. which during the day fell to normal, and continued so till the 31st, when she insisted on getting about as she said she felt quite well. On the night of the 4th Sept. she was suddenly seized with severe abdominal pains. When seen on the following morning, her condition though not serious, was bad. The temperature was 101·6°F. skin hot and dry, tongue covered with a thick white fur, no headache, much thirst, indifferent appetite, bowels not moved for two days, calm features, pulse quick and frequent, 120 per minute. The abdomen was tympanitic, distended and very tender to the touch, thoracic respiration 30 per minute, relief was obtained by lying on either side with the knees drawn up. The same line of treatment was adopted as before, i.e. absolute rest. Belladonna and warm poultices to abdomen. Quinine gr. x Bis die. Rum ℥ss 4 times a day with 2 seers of milk during the 24 hours. In the evening the symptoms were more aggravated and the temperature rose to 104·4°F. Next day the temperature did not fall below 103°F. She passed a bad night, had no sleep, in spite of a grain ad a half of opium, was fidgety and rejected her food. For the next few days the temperature varied from 102° to 103·8°F. with gradual abatement of the general symptoms, the abdominal pain decreased and on the 9th was found to be localized to the hypogastric and right iliac regions, and on the 11th a rounded painful swelling could be distinctly felt above the pelvic brim. On vaginal examination the uterus was found to be fixed and the tumour adherent to it. Poultices and treatment continued. Irritation of the bowels now set in with the expulsion of a quantity of mucus, probably due to adhesions between the rectum and the tumour. Castor oil emulsion was given to clear the intestinal tract and relieve any tendency to constipation. The mucus ceased on the 16th and with it the general condition of the patient took a turn for the better, the morning temperature came down to normal and the evening temperature below 100°F, the pain over pelvic swelling diminished which was greatly facilitated by the repeated applications of blisters. On the 19th the abscess burst and discharged its contents into the rectum, a large quantity of pus was found in the stools, from this day forward the temperature remained normal and the pelvic swelling disappeared though slight tenderness on pressure was still present. A steady progress towards recovery ensued, pus was passed for several days by the bowels, but in gradually diminishing quantities which completely disappeared. The pelvic tenderness lingered for a longer time, but by the 7th of October she had completely recovered. The rectum was frequently washed out with a 1 to 50 carbolic solution and during convalescence Tinct Nux Vomica m. xiii, Quinine Sulph. gr. ii, Inf Quassia ℥i t. d. s. was given with nourishing diet.

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CIRCUMSCRIBED TRAUMATIC ANEURISM OF THE PALM.

By Arnold Caddy, F.R.C.S. Eng.

Member of the Clinical Society of London, etc.

This rare condition presented itself in a European lady aged 33. About March 10th 1896, while resting her right hand on a wineglass the latter gave way and broke, cutting the palm of the hand, the wound bleeding profusely. The wound was dressed and healed in five days. Four days later the scar was noticed to be tender when holding the reins while driving. Gradually at the site of the original wound a small pulsating swelling appeared, which,

[illegible] This swelling was only painful [illegible] for grasping objects, but was not [illegible] to pressure.

I saw the case for the first time on April 17th 1898, and then there was a rounded pulsating swelling in the right palm, the size of a nutmeg, lying between the roots of the middle and ring fingers on a level with the heads of the metacarpal bones. Pulsation ceased on compression of the radial and ulnar arteries.

On April 19th under chloroform and assisted by Dr. GARTH of this city, I tied the radial and ulnar arteries at the wrist. The wound was dressed antiseptically and the hand and forearm put on a straight splint.

On 21st April the tumour was quite hard, without pulsation and the circulation in the fingers was perfect

On 26th April the wound was healed and the tumour had perceptibly shrunk. The splint was worn until 8th May and then the hand was only carried in a sling

By 3rd June the tumour had shrunk to the size of a small pea and the hand was in constant use.

I have recorded this case on account of the rarity of palmar aneurism, whether spontaneous or traumatic. I was prepared to tie the brachial artery if ligature of the radial and ulnar arteries had failed, which event might have occurred owing to the free anastomosis existing through the interosseous artery and the palmar arches. The patient was desirous of trying the less severe measure first and the operation was a complete success

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CRANIOTOMY COMBINED WITH PODALIC VERSION.

By R. SRINIVASA PILLAI, C.M.S.

Municipal Hospital, Kurnool.

ON the evening of 3rd October 1898 at 2 P.M. I was called to see a Mahomedan woman in labor

History.—Primipara, full term. Pains commenced at 3 A.M. on 3rd, membranes ruptured at 7 A.M. followed by expulsion of one of the lower extremities A native "Dhai" had been sent for at 8 o'clock, who is reported to have done nothing. The hospital nurse was summoned at 12 noon, she attempted to perform "turning" but failed in the attempt.

The patient being a Gosha woman would not admit a man into the room till she was under the effects of chloroform. She was about 18 years, well nourished and in a good state of health. On examination I found the child dead, neck constricted at the pelvic outlet, vagina hot and moist and the umbilical cord lying over the head. The symphysis menti was firmly fixed against the symphysis pubes and the head was lying in the right oblique diameter of the pelvis, the uterus being firmly contracted on the head. The operation of craniotomy was thought advisable and was resorted to.

The cranium was perforated behind the right ear. One blade of the cephalotribe was introduced into the cranial cavity, the contents escaping after a few minutes, delivery was effected with a sudden rush, the placenta was expelled at the usual time.

4th October 1898.—Complains of slight pain over the uterus, bowels moved, urine voided, nourishment detained, slept fairly well.

5th October 1898.—Bowels constipated, lochial discharge normal and healthy, doing well. She was discharged on the 10th perfectly well.

Indian Medical Record.

16th November 1898.

THE COLONISATION OF THE TROPICS BY WHITE MEN.

THE question of the possibility of white men becoming acclimatised, and perpetuating their race without degeneration, in the tropics, is far too attractive both to the theorist and to the practical man, to be left long in abeyance.

The carefully weighed verdict of our immediate predecessors that such acclimatisation is impossible, has lately been called in question by a few medical men whose bias towards theoretical assumptions, appears to us, to have outrun their practical knowledge; and the importance of the discussion has been much enhanced by a series of letters which the distinguished author of "Social Evolution" BENJAMIN KIDD, has contributed to *The Times*.

When a man of KIDD'S calibre enters upon a topic of this kind we may feel certain that it will be handled in a thoughtful and masterly manner, and we are not disappointed. In his three letters entitled "the Control of the Tropics," he gives us a luminous survey of the matter from several points of view, and in his conclusion that it would be a "blunder of the first magnitude" to attempt to colonise the tropics in the same fashion as the temperate parts of America, Australia and Africa have been colonised, we see every reason to agree.

The *British Medical Journal*, however, quarrels with Mr. KIDD for having controverted some of the pet theories of its protegee. This formerly sane journal has of late like Hamlet "put an antic disposition on," the prominent feature of which is to gush at random and call it science; no theories are too visionary, no hypotheses are too impossible for its credulity; it has assumed to itself the lead in all matters pertaining to British Tropical Medicine, and by the extravagance of its views it has already called forth adverse criticism in several quarters.

The *British Medical Journal* tells us that "the subject of tropical acclimatisation has hitherto been discussed mostly by statesmen, geographers, meteorologists, and journalists" and also that, "it appears to us all the more necessary to discuss it from the scientific standpoint."

In this impartial spirit does it cast contempt upon its opponents, and claim to be the only home of science so that we are not surprised when it says, that Mr. KIDD deals with the subject "perfunctorily" and "with a dogmatism hardly warranted by his knowledge of the subject."

But before following the scientific footsteps of the *British Medical Journal* in its attack upon Mr. KIDD, and discussing the arrangements it brings forward in support of the possibility of acclimatisation, it will be well to pause a moment to consider the exact nature of the proposition.

In the first place we may mention that there are many places lying within the tropics of Cancer and Capricorn,

which have climates by no means tropical, such as many of the hill stations of India and the high tablelands of Africa; these of course have nothing whatever to do with the point at issue, nor would we consider it necessary to allude to them, were it not that a contemporary has solved the question of acclimatisation in the affirmative, to its own great satisfaction, by pointing to the possibility of Europeans settling in such pleasant climates.

The question is, can the white man colonise the plains of India and the plains of Africa in the same way as he has done Canada and the United States, not, can he dwell in comfort in the Nilgiris, or at Newera Elia?

By colonising in this sense it is meant, not that the white man should be a mere supervisor of labour, but that he himself should be the labourer; that he with his family should take up the land and be tillers of the soil, the hewers of wood and the drawers of water, that they should live there from generation to generation and perpetuate their race without degeneration.

It is of this that the *British Medical Journal* is so confident of the possibility, and the following are some of the arguments it advances. "Setting aside theories," it says "is not the revolution which improved sanitation has wrought in all tropical climates, a striking proof of what can be done to make acclimatisation possible" as a proof of this it remarks that, "The death-rate of European troops in the tropics which used to be from 100 to 129 per 1000, is now as low as 12 per 1000 in India."

The argument appears to us to be about as bad and as weak a one as could possibly be brought forward. Putting aside the fact that the reduced mortality in India is largely due to the mere alteration of the terms of service, the change from long service to short, the condition of the soldier in India is as different from the condition of a colonist as it could well be.

Now the average time that each soldier stays in India is under five years. The strength of the European troops is roughly 70,000 and every year about 15,000 go home. In 1896, 1950 men were saved the chance of dying in the country by being invalided to England, under these circumstances the lowered death-rate can hardly be fairly quoted as evidence in favour of acclimatisation, in as far as it may be attributed to improved sanitation, it must be admitted that amongst the chief causes which have contributed to make India healthier to the soldier, are those which have been directed to protecting him from meteorological influences, such as improved housing, improved clothing, more care in exposing him to tropical heat, and increased facilities for removing him from the elevated temperature of the plains to the coolness of hill stations.

But to all these influences the *British Medical Journal* denies the possession of any noxious properties, in its eyes the all prevailing microbe is the only or chief danger, and sanitation is only sanitation when directed against some micro-organism.

Few hot house plants are more carefully looked after than is the British soldier in India, and the proportion of care lavished on protecting him from microbes, is small, compared with that which, as the result of a dearly bought experience, is expended upon protecting him from the effects of the climate.

Poor as this argument is what are we to think of the following? "The Englishman transplanted to America and Australia differs already as much from his prototype in physical and psychical characters, but surely he has not degenerated."

The writer we presume refers to the descendants of the "transplanted Englishman" not to the original worthy himself who probably had not time to prove the gospel of acclimatisation by the physical and psychical changes alluded to, and if he had, would no doubt have ceased to be an Englishman.

But the most extraordinary part of the thing is that the places brought forward to prove the possibility of acclimatisation in the tropics, are not in the tropics at all.

America is a very vague geographical expression, but then we have seen that this journal despises geographers. Well the only parts of America that have been colonised by Englishmen are Canada and the United States and they are both well outside the tropics.

The greater part of Australia lies outside the tropics, and it is in this part only that colonisation has been successful. It is well known that in the tropical parts of Queensland the labour is done by imported blacks.

It is the same with the Boers who are held up as examples of successful tropical colonists, only a very small part of the Boer territory is in the tropics. Such are some of the arguments on which the *British Medical Journal* relies to prove to us the possibility of the acclimatisation of white men in the tropics, nor are the remainder any more convincing.

As a final *coup de grace* we are informed that "Already more than 10,000,000 white men and their descendants are settled within the tropics." As the *British Medical Journal*, like Dr. MANSON, uses the word tropics in a sense peculiar to itself, it is not worth while trying to test the accuracy of the figures; it is certain however that, to whatever race these white men may belong, they are neither Englishmen nor their descendants.

The theories of the *British Medical Journal* impress us as little as their facts. We are told that, "Dr. SAMBON brought forward a large amount of weighty evidence that the causes of disease, deterioration, and deaths in the tropics are due not so much to the influence of climate as to pathogenic germs" Dr SAMBON has gained some notoriety for himself by his wild speculations regarding sunstroke, which he believes to be an infectious disease, with a specific microbe of course; but we do not on this account see any reason to accept him as a prophet. The *British Medical Journal* however accepts him blindly and subscribes to his doctrine in the following words.

"There appears to be good reason, however, to believe that the real enemy is the microbe; and, if so we may hope to fight against it in the tropics as successfully as has already been done in temperate zones by sanitation and the gradual acquisition of immunity."

The above sentence has a peculiar ring of Dr. MANSON, and it would not surprise us to learn that the article we are venturing to criticise is from his distinguished pen, which would explain the loose way in which the word tropics is used.

Dr. MANSON appears to have become strangely optimistic as to the possibility of white men colonising the tropics since he has taken up his residence in England.

The views expressed by him, in the introduction to his "Tropical Diseases" are really at the bottom of the whole subject.

"Who can doubt," he says, "that just as the fauna and flora of the tropical world are infinitely richer in species than those of colder climates, so there is a corresponding distribution in the wealth and poverty of pathogenic organisms?"

We do not believe that there is a particle of evidence in support of this wild generalisation.

From all that we know of the primitive inhabitants of tropical regions, their diseases are fewer in number, and simpler in nature than our own. The extraordinary rapidity with which their flesh heals after wounds of the most severe description is universally admitted, and affords strong *prima facia* evidence of the absence of virulent micro-organisms.

What diseases have the savages of Africa to compare in infectiousness or destructiveness with our exanthemata? Some of the African tribes are remarkable for their splendid physique, while in health and longevity they rival any European people.

It is all nonsense to talk of there being a poverty of pathogenic organisms in temperate climates, and a wealth of them in the tropics; history tells us that destructive diseases have been more frequently conveyed from whites to blacks, from civilised to uncivilised communities than the reverse.

To ascribe these things to acquired immunity is merely a blind or an admission that the savage has succeeded where the white man has failed.

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QUACKERY AND QUACK ADVERTISING IN INDIA.

On the 17th May last, Sir Walter Foster, M D., in the House of Commons, asked the Secretary of State for India if he was aware that at present uneducated and unqualified persons have as much right to practise medicine in India as fully qualified practitioners; and whether in view of the danger to which the Indian People are thereby exposed, he would consider the advisability of instituting a system of registration for medical practitioners, similar to that which exists in Great Britain and Ireland.

Lord George Hamilton replied; "The answer to the first branch of the question is in the affirmative and that to the second branch in the negative. It would be, in my judgment, impossible in the present condition of India to prevent the people of that country from resorting to native practitioners, even though they may be regarded by Europeans as not fully educated or qualified for the work they undertake."

The reply of the Secretary of State for India appears to call for one or two remarks.

In the first place all native practitioners in India cannot be looked upon as unqualified. Is Lord George Hamilton aware that in India, in the Punjab University, there is a special course for students of Oriental medicine, where a knowledge of the Yunani or Vaidya systems of medicine is insisted upon and where examinations are held for Hakims and Vaidyas, Umdat-ul-Hukama or Bishak, Maha-Bhishak and Zobdat-ul-Hukama.

Men who have attended such courses and obtained the the above titles, though native practitioners, cannot be held to be unqualified, and they are quite as entitled as anyone else to be protected against the invasion of their sphere by impostors.

In the second place if the reason given by the noble Lord was generally accepted as rendering registration either unnecessary or impossible, it must be clear to the meanest intelligence that registration would exist nowhere, for in no country in the world is it possible to prevent people from resorting to unqualified and uneducated quacks and swindlers for the treatment of their ailments.

Quackery is rampant in every civilised country in the world, and in spite of the crusade against it, which becomes keener every day, it thrives. Its roots derive their nourishment from the superstitions of the dark ages through which we have passed, and its victims are attracted by the gaudy flowers of its fraudulent advertisements.

Nothing but gradual enlightenment and education can overcome the dense ignorance, superstition and love of the miraculous, which lead fools to pin their faith upon the glaring advertisements of unscrupulous charlatans.

It would be an interesting study, but foreign to our present purpose, to trace the evolution of quackery, to point out its insidious wiles, and to show how it appeals to and feeds, like a loathsome parasite, upon the weakest and most unhealthy parts of human nature; the morbid appetite, the depraved imagination, the diseased mind and the illused and suffering body.

Quackery is as old as the human race, and the struggle against it must be long and bitter before it finally succumbs; and yet, although amongst educated men there can be no question of the ungauged amount of harm it does, in spite of the voice of civilised humanity being against it, we see the Secretary of State for India in his official place in the House of Commons, proclaiming its legalisation in India.

Legal Quackery.

For this is what the Secretary of State's answer plainly amounts to, neither more nor less. The status of the Quack in India is as good, according to him, as that of the fully qualified medical practitioner.

India is unique in being the only country under civilised rule where quackery is legal; it is certainly curious that such a retrograde departure could have been inaugurated at a time when the cry for reform and improvement in all things connected with medicine, echoes loudly from every country where the English tongue is spoken.

More curious still is it to note that this strange declaration has been passed over in silence by the English Medical Press. This strange silence is certainly not encouraging to the cause of Medical Reform in India.

Let us now turn to the consideration of a certain class of quack literature which is scattered broadcast throughout the length and breadth of India, under the guise of some of these systems of native medicine which Lord George Hamilton is so anxious to foster and cherish.

In the first place we have a pamphlet of 56 pages which calls itself the "Ayurveda Sangraha." "A monthly Journal of Medicine." It is nothing more than a mass of quack advertisements, wretchedly printed and adorned with grotesque illustrations.

It is conducted we are informed by Kaviraj Nogendra Nath Sen Gupta.

[illegible] this gentleman introduces to himself and [illegible] and mysterious, they are as follows :—"Government Medical Diploma holder. Member Surgical [illegible] (London)', Society of Chemical Industry, (London), Paris Chemical Society, Indian Medical Association, Calcutta Medical Society, Author of "Kaviraji Siksha," Dattari Siksha," and Examiner, Hindu System of Medicine, 'Lala Sitaram Tol Institution,' Delhi."

This man claims to hold a Government Medical Diploma, and this claim has been accepted and reiterated by almost the whole of the Indian lay press and by the leading Calcutta daily, the *Englishman*.

As far as we can ascertain the claim is unfounded, he has no recognised university or collegiate diploma in medicine or surgery, and is apparently an advertising quack

It is true that his name is at present in the roll of membership of the Indian Medical Association, he there appears as an L. M. S. This is a degree granted only by the Calcutta University, but the name of Kaviraj N. N Sen Gupta, is not to be found in the Calcutta University Calendar.

The presumption is that he has at times illegally assumed this title and the attention of the University authorities and of the Council of the Indian Medical Association is therefore drawn to the matter, and the result we hope to be able to publish at an early date

As for the other Societies to which he claims to belong, we know nothing about them, except that they have no standing in the medical profession.

Fifteen pages of the pamphlet before us are taken up with press puffs of the most plausible description, to which pernicious system, as we have remarked, the Calcutta *Englishman* lends itself The changes are rung on the numerous titles he lays claims to and his books are reviewed

We hear learn that the "Dactari Siksha," "is a big Vade Mecum of the Medical Science," and that the language is easy, clear and melodious," another paper says "the language is easy, sweet and charte' (whatever that may be) and that Babu K N. N Sen Gupta "has begun to create an epoch in the medical world"

The *Hindoo Patriot* tells us that the "Kaviraji Siksha" is a compilation from various well known Ayurvedic works; somewhat unkindly it ends its review of the book with the remarks, "Kaviraj Nagendra Nath Sen has a fair knowledge of English. With slight assistance he may achieve the desideratum," even in time we suppose he may come up to the standard of the *Hindoo Patriot* itself.

The *Pratibha* says "he is a specialist in *curing* many *incurable* diseases." The *Pratibha* is nearer the mark than it thinks, for this is exactly what he professes to be

The love of natives for a title of any kind is forcibly brought to notice by the constant repetition of the phrase "he is a Government Medical Diploma holder"

We must not omit to mention that Kaviraj N N Sen Gupta poses as a philanthropist. We are told that he has started a "Free Ayurvedic Institution where lessons in Western and Eastern medical science will be imparted to boys free of charge by competent teachers of eminent scholarship." He does not, we learn, want *pecuniary* (sic) aid, but only "the sympathy and moral support of the aristocracy and gentry of India."

The following is an extract from [illegible] this age when Eastern science and literature, [illegible] (sic) by the Great German Philosopher, Schopenhauer, and in his ecstasy of admiration for the Upanishadas have produced a wonderful influence over Western thought," &c.

The Lieutenant-Governor's Name Brought in.

What astonishes us most of all in the pamphlet before us, is to find that even the Lieutenant-Governor of Bengal is made to subserve the advertising tactics of this man.

Occupying the most prominent place in the front page, we are given the following "copy of a letter from the Private Secretary to His Honor the Lieutenant-Governor of Bengal," dated Belvedere, 30th April 1898 :—

Sir,—I beg to acknowledge with thanks the receipt of four bottles of your Kesranjan Oil forwarded for His Honor the Lieutenant Governor with your letter of the 29th instant

Yours faithfully, A H. Gayer, *Private Secretary.*

Surely it is a monstrous and scandalous thing that the Lieutenant-Governor should thus lend himself, through the medium of his Private Secretary, to assist the tricks and knavery of any unscrupulous charlatan.

We are not uncharitable enough to imagine, or even to hint, that Sir John Woodburn indulges in quack remedies himself from choice, but that his Private Secretary Mr Gayer should be fooled, by a present of four bottles of oil, into letting the Lieutenant-Governor's name appear throughout India as a patron and supporter of a common quack, is discreditable in the extreme, and we feel certain that the use made of his name only requires to be made public to be instantly repudiated

In our next issue we will sample some of our Quack's much vaunted remedies and then pass on to others of the same fraternity

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ATYPICAL MALARIA AS SEEN COMING FROM OUR MILITARY HOSPITALS.

One of the results of the American War in Cuba has been the importation of cases of malaria into New York, an interesting communication concerning which appears from the pen of Dr D. W. Wynkoop under the above heading in the *New York Medical Record.*

"For the second time in the history of this country," Dr Wynkoop says, "a manifestation of malaria, which formerly was rare in all our Northern and Western States, to-day is common there."

Its severity, its fatality, and close resemblance to typhoid fever during certain stages are marked features of the disease.

The following description of the algide form is drawn from the cases that have been under his own observation supplemented by information derived from those in charge of hospital camps.

"*Definition.*—An infectious disease characterised by; (*a*) sudden onset with few prodromal symptoms; (*b*) paroxysms of fever with no regular type as far as time is concerned; (*c*) the typical malaria chill usually absent; (*d*) gastric disturbance with enteritis;

(e) a chronic diarrhœa with enlarged spleen; (f) a tendency to come and death in the third or fourth attack; (g) skin disturbances; (h) the crescentic form of this hæmatozoon always found; (i) the presence of this form of plasmodium in the blood of those apparently cured of their attack.

Etiology.—One may question the mosquito theory of entrance of the organism into the body, as most of those recently active in the Cuban war are unanimous in saying that they encountered few mosquitoes while on the island.

Few sailors have contracted this algide type of malaria, except those who have had considerable shore duty while in Cuba. It has been practically confined to those in the army who have lived in Cuba, though some have undoubtedly contracted the disease while in camp at Chickamauga. In Alabama and several of our Southern States this form of fever exists, although it is rarely spoken of as malarial fever; they say there that a person dies of a congestive chill.

Duration of Incubation is very uncertain. Many who have gone through the campaign with no sign of the disease have had it develop after their return to the States. This may be accounted for by the fact that it was the practice of most of the soldiers to take from fifteen to thirty grains of quinine a day while in Cuba, but on their return home they ceased taking the drug. It is possible that this amount of quinine, although taken at irregular intervals, was sufficient to keep the disease from manifesting itself, yet not sufficient to eradicate it.

Symptoms.—Mode of onset. The patient generally says that he was feeling perfectly well up to 11 A. M. He went in for bathing and returned to mess in an hour. After dinner he began to feel weak and he went to his tent to lie down. By 4 P.M. his head felt dizzy and he had pains in his back and legs. This pain continues with increased severity and his dizziness changes to headache. On his admission to hospital at 8 P. M it will be found that his temperature is 15°F, his pulse 120, and his respiration 28.

Chill is usually slight and often absent.

Fever.—The rise in temperature is usually a rapid one ending at 105° F., though in many cases it may go as high as 106° F., and in some a little higher; it ranges between 103° and 106F. With the end of the rise in temperature we are not to expect a rapid fall. The temperature may stay at this high point or near it for an hour or two, and then slowly fall, taking from ten to twenty hours before it gets near normal. A drenching perspiration accompanies this fall and keeps up even after the temperature is below 99° F. The patient lies in a state of profound prostration. The second day after this we find an afternoon rise in temperature up to about 101° F. This continues with a morning fall for possibly a week or ten days, if no quinine has been administered during this period. The second high rise in temperature should be looked for about this time. It will act in the same way as the first, with the difference of being probably higher with greater prostration. There is no fixed duration of time between the high temperatures. As a rule it is from five to ten days, apparently being influenced by the general condition and resistance of the patient. We have a third high rise and usually a fourth, the interval becoming shorter, and shorter. Death usually follows the fourth rise of temperature.

Under the action of quinine (given hypodermatically by preference when we find hyperpyrexia) we are able to control this temperature and usually prevent any excessive elevation of temperature following the initial attack. It is on the strict and prolonged administration of this drug that success in dealing with cases depends.

Abdominal Symptoms.

The spleen is always found enlarged and more or less sensitive to the touch. In percussing over the abdomen we find tenderness in various parts—in some cases shifting from day to day, in others showing a persistence over the ileum—a point which causes one to think of typhoid fever, especially in consideration of several other symptoms I shall mention later on. The second day after the initial high rise in temperature we have usually gastritis and enteritis as complications. In many cases I have seen the stools almost characteristic of typhoid—the pea-soup variety and frothy. Under the action of quinine the stools become gradually darker and more firm. The patient's tongue is heavily coated but is moist. In many of the cases the kidneys refuse to do proper work, and in one I had suppression of urine for thirty-six hours.

Mental Condition.

After the first rise and fall of temperature the patient is left in a very apathetic and dejected condition. He takes little interest in his surroundings, and sleeps a good deal of the time. He has no desire for food but is always thirsty. With the second rise in temperature he becomes delirious. With the third and fourth he becomes comatose. Many patients who are apparently cured (though in reality not), after having been up and about for a week or two, will be brought into the hospital in a comatose condition, this having come on within less than an hour, and in this condition they may expire. This is by far the most important feature to remember in connection with this atypical form of malaria. The blame lies on the physician who allows his patient to go about before the protozoon is eradicated from the system. Many sudden deaths of soldiers on furlough in our cities can be put down to this score.

Skin Disturbances.

In some cases there has been an erythematous rash of short duration on various portions of the trunk, often on one hip. This rash was followed by itching of the part.

Blood Examination.

It showed the plasmodium malariæ in every case. It differed from that in our ordinary form of malaria by the constant appearance of the crescentic protozoon. The examination of the blood of those who had one or two previous attacks and were at the time of examination feeling perfectly well and doing their ordinary work, showed in several cases the crescentic form of the protozoon. From this we might justly infer that patients having had one or more attacks of this atypical form of malarial fever could not be considered free from the same, till examination two months after the last dose of quinine showed their blood free from these organisms.

[illegible]

The [illegible] could mistake this form of malaria during certain of its stages for typhoid fever. In fact I am convinced that many are at the present moment undergoing treatment for a supposed typhoid fever, when in reality the above condition exists. With the knowledge at their hands and exposure these men have gone through, and on account of their lowered vitality, we sometimes [illegible] to make the diagnosis of an irregular typhoid fever than to consider the disease as a possible malaria. An examination of the patient's blood will enable one to arrive at a correct diagnosis.

Malarial fevers of this very severe and fatal description are rarely reported even from the most malarious parts of the Indian Empire.

The above description, however, tallies very closely with that given by Manson, (Tropical Diseases) of malignant infections (Aestivo-Autumnal of the Italians). According to him, the crescentic form of the protozoon is only present in malignant infections, it does not cause fever, it is usually associated with marked cachexia, and not readily influenced by quinine. Further in such cases the fever is liable to be very irregular, the rigor stage to be less marked, the pyrexial stage prolonged, and there is a great tendency to relapses at more or less definite intervals of from eight to fourteen days. While at any time pernicious symptoms of the gravest character may declare themselves.

It is to be remarked that the evidence, as far as it goes, is against the idea that mosquitoes were in any way responsible for the infection.

Fevers of this description in the Southern States are spoken of as "congestive chills." In connection with this nomenclature it is noteworthy that in our author's cases the disease usually appeared shortly after bathing, apparently irrespective of the age or condition of the parasites. The course of events appears generally to have been,—patient perfectly well up to 11 A.M., then went in for bathing, at 4 A.M., general pains and dizziness and at 8 P.M. high fever.

We read, "that it was the practice of most of the soldiers to take from 15 to 30 grains of quinine a day while in Cuba." We presume that most of the men who came under our author's care had done so, for otherwise the fact would certainly have been mentioned, yet even in these large doses quinine appears to have failed to prove itself an effective preventive.

The author lays particular stress upon the close resemblance to typhoid, but does not mention if the typhoid bacillus was looked for.

The whole subject of this typhoid form of Malaria, closely connected with the crescentic form of the protozoon is extremely interesting, and now that attention has been so ably drawn to it by Dr. Wenyon we will look for some further enlightenment from our energetic confrères in New York.

[illegible]

In our correspondence columns will [illegible] proof of a most pernicious effect to [illegible] already over-deluged country of [illegible] practitioners, a diploma-mill for [illegible] to apply for them, certain "diplomas" to practice medicine. These documents are to bear the hall-mark of America, a country which, though [illegible] had the unfortunate reputation of harbouring a few [illegible] traders in "diplomas" has not only fairly wiped off the reproach, but has advanced the standard of its colleges and its teachers, to a very high and enviable level. It is a disgrace to our great American cousins, that their consular representatives in India do not instantly give a decisive blow to these questionable fortune hunters, who in the name of America, seek to delude Indian medical students into purchasing parchments and going through the veriest mimicry of a so-called "examination," in the belief that some genuine "College" in that far off land is conferring on them on the real dignity of a Doctorate in Medicine. We appeal to American Medical Colleges and to American Consul Generals to expose and drive out these fraudulent impostors. Apart from these so-called American diploma sellers in Bombay, and very honorably distinguished from them, we find two Societies in Calcutta honestly endeavoring to struggle into the position of teaching medical corporations. We refer to the Calcutta Medical School which is a fairly flourishing and honorably conducted institution, and the "College of Physicians and Surgeons of Bengal." The Calcutta Medical School is a small but well-conducted vernacular school. It is officered entirely by Bengalee gentlemen, all of whom are graduates of the Calcutta University. It was established 13 years ago in Lower Circular Road. All the subjects which form the curriculum of the Native Government Medical School—The Campbell Medical School of Sealdah—are taught in it. For some years now this indigenous independent school has been granting diplomas to its alumni.

This diploma—the L.C.M.S., or Licentiate of the Calcutta Medical School—is given after four years of study, and candidates have to pass a very fair examination before they receive this passport to practice their profession. The test applied, is, we believe quite equal to that of the Campbell Medical School, which seems to serve the same purpose as the Calcutta Medical School, namely, that of educating a class of vernacular practitioners, whose vocation is among the poorer classes of natives in the rural districts, or who enter the subordinate native service of Government as hospital assistants. The Calcutta Medical School has made material progress during the past two years, for though not nearly as well equipped as the Campbell Medical School, and though not possessing such an excellent hospital for clinical teaching, it now owns a complete though small arrangement of class rooms for anatomy, dissections, physiology, chemistry, materia medica, pathology, as well as an out-door dispensary. It has a small hospital for [illegible] beds but its students are permitted to attend the clinical facilities offered by the various Government [illegible] hospitals in the city. Altogether we find that though the Calcutta Medical School is sadly in need of immediate and urgently necessary improvements, in every

[illegible] *Indo-Anglian* arrangements [illegible] teaching Medicine [illegible] of in Bengalee, it is an [illegible] praiseworthy effort on the part [illegible], which is deserving of encouragement and support both from the public and from the State.

There [illegible] in the same street another indigenous institution styled, "The College of Physicians and Surgeons of Bengal." Here too we find enterprising Bengalee gentlemen, all graduates of Indian Universities and some with British diplomas, making an honest effort to raise a teaching medical institution, with higher and more ambitious aims than its indigenous neighbour to which we have referred. We have recently inspected both these schools and we must admit that while admiring the boldness and enterprise of their originators, we were struck with the apparent uselessness of having two such societies. The School is flourishing and gives abundant evidence of financial prosperity, for it has 400 students on its rolls, while the "College" seems to be in a most deplorable and unpromising condition We learnt that it had been in "existence" for 2½ years, that now there were 40 students on its rolls, who paid 3 Rupees a year for their tuition! that seven Babus were their teachers. The class rooms, the furniture, the "bottles," the stuffed monkeys, bears, &c, and the dingy, dirty ghostly appearance of the "rooms," the filthy dirt-laden wilderness of waste land around the barn-like building, styled a "College," are all too torturing to describe. How on earth a single Bengalee "student" attends such a place, is beyond our imagination to conceive. Clearly, nothing is or can be "taught" to men in such a place, and yet we found "Notices' in a box with a glass paned front announcing that certain "students" were "requested" to appear at the First L C & P Examination" So that this "institution" intends granting Diplomas The whole farce seems too absurd for serious attention Yet the subject is fraught with the most dangerous warnings to the public and to the Government. We are strongly of opinion that these two "schools" should unite. It is utterly impossible for the "College" to do any good, but united to the "School," a system of education could be usefully carried on and after a time an examining body could be formed, supervised and controlled by Government, and granting a certificate or diploma of qualification to practice Medicine, Surgery and Midwifery. We are further strongly of opinion that the Government should retire from educating this lower grade of practitioners and abolish its paid staff at the Campbell Medical School and Hospital, handing over its own institution to the combined staff of the Calcutta Medical School and its more ambitious though less successful neighbour. Such a step would greatly encourage indigenous medical enterprise and open a very fruitful avenue for the natural development of medical science among the natives of Bengal.

The whole system of the education of the lower ranks of medical practitioners and medical subordinates in State service in this country, sadly and urgently requires the [illegible] attention of the Government, and [illegible] than follow the suggested model [illegible] the Indian Medical Association, which [illegible] an entire scheme for the reform of [illegible] local medical profession before the [illegible] Government.

[illegible] NEWS.

PROFESSOR OF SURGERY AND CHIEF SURGEON IN CALCUTTA.

We learn from Simla that Dr. R. D. MURRAY is confirmed in his officiating appointment as Professor of Surgery in the Calcutta Medical College, though he is not to hold the position of *First* Surgeon to the Medical College Hospital Dr. MURRAY is to be *one* of the surgeons but *not chief* Surgeon. The titles of First and Second Surgeon are henceforth to be abolished. This is the "sop to Cerberus" which the Government of India has thought meet to throw down in mitigation of a most unpardonable and unconscionable blunder. The highest principles of efficiency, the sacred demands of justice, the pre-eminent claims of the hundreds of medical students, who trusting to the honesty of the medical administration of this country, entered the College in the firm belief that they would be taught surgery by a skilled and experienced *surgeon*, have all been sacrificed and [illegible], before the altar of that monster goddess of Indian officialism, INTEREST.

On behalf of every medical practitioner, both European and Indian, and on behalf of every student of the Calcutta Medical College, we protest against the action of Mr. RISLEY, C.S., of Bengal, and also against the conduct of SURGEON-GENERAL HARVEY in this matter of Dr. MURRAY'S appointment as Professor of Surgery and as the representative Surgeon of this great city. Never was a worse job perpetrated, though many iniquitous jobs have been done in the Calcutta Medical College and Hospital before to-day. There is no excuse for this gross injustice to Calcutta, for the medical authorities were only too well aware of the transparent unfitness of the man for his unfortunate promotion. Surely the records of the Office of the Inspector-General of Civil Hospitals in Bengal and the written objections forwarded to the Office of the Director-General of the Indian Medical Service, bear us out in our contention But we have not as yet done with this unsavoury piece of maladministration The telegraph warned Dr HARVEY of the collosal folly of his office in confirming Dr. MURRAY'S nomination, and there is therefore nothing to plead in extenuation of this educational blunder, which places the reputation of the Calcutta Medical College at a terrible stake, by making a laughing stock of its surgical representative, for we venture to state that no European practitioner in Calcutta feels the faintest confidence in calling in the consultative surgical genius of the *Gazette* manufactured, "professor" whom it hath pleased the RISLEY *cum* HARVEY cabinet to honor.

Calcutta is now in the unenviable position of having no "Star" (Official "Star" we mean of course) in its Surgical or Medical firmament, and like the Macedonians we might well raise the missionary cry to London, Dublin and Edinburgh, "come over and help us," for the city is in dire straits for an official consulting surgeon and a consulting physician, when the Mahatmas of Simla, Messrs HARVEY and RISLEY have to pitchfork G. Ps. (General Practitioners) into the dignified position of Professors and Consultants. Mistakes like these place powerful weapons in the hands of the advocates for medical reform in India, for they forge the dynamite bombs that will soon explode and with their disintegrating and devastating destruction, efface every vestige of the shameful monopolies of the Indian Medical Service, that for nearly a century have dwarfed the real growth and development of medical science and of the independent medical profession of this country.

THE CALCUTTA "ENGLISHMAN" ON DR MURRAY'S APPOINTMENT.

SINCE writing the above, we find the *Englishman* of the 9th November offers an "*apologium*" for Lieut.-Colonel MURRAY'S appointment. It states among other matters that Colonel MURRAY studied *modern surgery* under "Lord" LISTER in 1873? That must have been modern surgery with a vengeance. It reminds us that there was then no "Lord" of "antiseptic" surgery and that the appearance of "aseptic" surgery is quite as *modern* as the appearance of the "Lord" at whose feet our "modern" M. B. of 1873 learnt only the *A, B, C* of what most surgeons know and understand as *modern* surgery. We are further reminded that in all probability the writer of the MURRAY 'apologium" and the subject of his "ditty," might both be engaged to indite a new version of the story of the triumphal entry of the animal tribe into Noah's Ark having special reference to "modern" surgery in Calcutta. It might begin with—

Murray and the *Englishman* entered the Ark,
Calcutta looked on and wondered,
Harvey and Risley worked in the dark,
And Surgery was "modernly" murdered

In order to correctly and clearly expose the "flaws' of the advertisement we refer to, (and which the *Morning Post* repeats) we reproduce *verbatim* the eulogistic paragraph on Dr. MURRAY'S appointment referred to above —

"Lieutenant-Colonel R. D MURRAY, I M S, who has been confirmed in his officiating appointment as Professor of Surgery in the Calcutta Medical College and First Surgeon to the Calcutta Medical College Hospital, has a distinguished record. He commenced his career as an Honours Graduate in Medicine and Surgery in the Edinburgh University in 1873, having studied modern surgery under its founder, Lord LISTER, and in 1874 was appointed Senior Resident Physician and Clinical Tutor in the Edinburgh Royal Infirmary. He then resolved to enter the Army and in 1875 passed into Netley at the head of the list. Finding in a Military Hospital insufficient scope for his energies, he in 1876 entered the Civil Department under the Bengal Government, where he has since remained except for a brief interval in 1886, when he was ordered to Burma on active service In this short experience of Field duties, he was posted to the charge of a Field Hospital at Mandalay, and in that capacity performed his new duties in a fashion that procured him mention in despatches Excluding this period he served from 1885 to 1888 as First Resident Surgeon in the Presidency General Hospital and Superintendent of Asylums In 1890 he was appointed Civil Surgeon of Gaya, being afterwards appointed to the important post of Civil Surgeon of Howrah. During the absence on furlough of Colonel O'BRIEN, he officiated for him at the Medical College and Hospital."

Now after all we have said in objection to DR MURRAY'S nomination, we feel compelled to allude in explanation to the above paragraph. To start with, this statement was never written by any member of the *Englishman* staff. It emanated either from the Director-General's Office at Simla or from some highly interested "medical" personage in Calcutta to whom these peculiar little "personal" details were intimately known. In whatever way they may temporarily serve their advertising purposes, we feel bound to challenge the statements of the *Englishman* on purely public grounds, for we hold that Lieutenant-Colonel MURRAY I. M. S. is *not* qualified to be either a "professor" of surgery nor a surgeon to an educational hospital. We once more affirm that personally we have nothing against Dr. MURRAY. We know him as a general practitioner, we give him all the credit due to a good civil medical officer, his character is unimpeachable and his many gentlemanly qualities and genial kind heartedness are worthy of a high measure of praise. It is a fatal mistake however to endeavor to justify the culpable action of the Bengal Secretariat and the Medical Administration at Simla by misleading the public by means of statements in the lay press which are tantamount to a *suggestio falsi* by a *suppressio veri*.

The *Englishman* begins with a statement which is *false*. It says (1) "Lieutenant Colonel R. D. MURRAY has been confirmed in his officiating appointment as Professor of Surgery and *First* Surgeon to the Calcutta Medical College Hospital." Now to quote the *true* "*Gazette*" notification from the *Pioneer*, we find —

"Lieutenant-Colonel R D MURRAY, M B, I.M.S, (Bengal), is confirmed in the appointment of Professor of Surgery, Medical College, Calcutta, and *ex-officio* Surgeon to the College Hospital."

It is therefore *ex-officio* "Surgeon" and not "First" It makes a difference, and an important and significant difference in view of all that has been written in this journal against Dr. MURRAY'S *fitness* for the posts he has been "helped" into. (2) The *Englishman* says Dr MURRAY "has a distinguished record" Where, when and how? Look at the available *records* of professional work—the medical press, the medical directories, the annals of medical and surgical science—and we look in vain for a "*record*" of any kind, but as to 'a distinguished *record*,' that is indeed a flight of fancy (3) The *Englishman* says "He (Dr. R D. MURRAY) commenced his career as an *Honours* graduate in Medicine and Surgery in the Edinburgh University in 1873" We have searched in vain in the official record of the medical profession (the Medical Register of the General Medical Council) for the admission of the fact that ROBERT DAVIDSON MURRAY M B, M S, Edin., who was registered on the 17th November 1873, (just a quarter of a century ago) is an "Honours' graduate. Nor do we find any such record against his name in that other unerring register—CHURCHILL'S Medical Directory. Where did the *Englishman's* paragraphist gather the flattering information that R D MURRAY was an "Honours" man? His professional 'record" in both these professional guides is as barren and waste as the sands of Sahara. And Dr. MURRAY is not M.D, of his alma mater yet. (4) The *Englishman* goes on about RISLEY'S "pet surgeon" " having studied *modern* surgery under its founder, Lord LISTER." Shades of SYME deliver us! The "Surgery" of a quarter of a century ago is "*modern*" to the *Englishman* and its paragraphist, but who is he who knowing anything of the past five years, will call the expoded teachings of Mr. LISTER of 1873 (the "Lord' of to-day) "modern." To prove that Dr MURRAY, if he trusts the *Englishman's* valuation of the "modern" surgical teaching he underwent in Mr. LISTER'S wards in the Edinburgh Infirmary in 1873, is trusting to a broken reed, we have but to review the history of LISTER'S work at and after that period. In 1875 he published his first book on "The Germ Theory of Fermentative changes," and up to 1879 his theories were not only disbelieved but very hotly disputed. LISTER, as everyone who knows anything of "ancient" surgery knows, changed his ideas very materially, so materially indeed that all his pet schemes for surgical treatment, the schemes of 1873, that modern era of the *Englishman* and "Professor" MURRAY, have been absolutely abandoned for a technique of a totally different character (5) "He" (*Professor* MURRAY) "then received

as enter the army and in 1878 passed into Netley at the head of the list," so sings the *Englishman* once again, and once again a false note. The Army List tells us that Surgeon-Lieutenant-Colonel GEORGE RANKING stands at the head of MURRAY'S "*batch*" as the Herbert Prizeman, so the suggestion of the *Englishman* that MURRAY passed out of Netley "at the head of the list" is wrong and calculated to mislead the Calcutta public. Now we think we have sufficiently exposed the "statements" of the *Englishman* and we will for the present allow the stupidity and the foolhardiness of Messrs. RISLEY and HARVEY to await the exposures that their folly necessitates being made both at the India Office in London, and in the Chamber of the General Medical Council of Great Britain.

THE BACTERIOLOGY OF CIRRHOSIS OF THE LIVER.

IN our pages, October 1st 1898, we announced that Professor J. G. ADAMI of Montreal claimed to have discovered a distinctive microbe in cases of Hepatic Cirrhosis, some further information on the subject was communicated to the meeting of the British Medical Association at Edinburgh, in a paper by the discoverer.

The paper was read by Professor WM. OSLER of Baltimore.

It was pointed out that not a single observer had been able to produce in animals, by means of alcohol, anything at all resembling the extreme deposit of fibrous tissue met with in typical hobnailed liver.

On the other hand, evidence was accumulating, especially in India, that extreme cirrhosis may attack children and adults who have never taken a particle of alcohol.

Some French pathologists, notably HANOT have regarded the enlarged cirrhotic liver which it associated with jaundice as being of infectious origin, and have made use of the term, le foie infectieux.

The author's first researches were made in connection with a very remarkable disease affecting cattle in a limited area in Nova Scotia, the so-called Pictou cattle disease, of which the main lesion is a singularly extensive cirrhosis of the liver. This disease appears to have been endemic for forty years in this district, slowly spreading from one animal to another. "The first symptom noticed is a bitterness in the milk and in time the beast dies slowly from exhaustion." The author killed and examined some thirty animals, the main lesions being an extreme condition of generalised hepatic cirrhosis, not only periportal but pericellular, the organ being enlarged and smooth; the gall-bladder was full, and fæces were stained and a moderate amount of ascitis was present. Numerous follicular ulcers were present in the fourth or true stomach. These gave the impression that the earliest lesions are the gastric changes, which are followed by the infection of the abdominal lymphatic system and portal area. The spleen was not markedly enlarged. From all the animals a characteristic micro-organism was obtained. It was a polymorphic organism, its most usual form being a short bacillus with polar staining, resembling in some respects the micro-organism of hæmorrhagic septicæmia in the lower animals, but differing in essential features. It was pathogenic for rabbits, guinea-pigs, and mice. The author was struck with the clinical similarity between this disease and portal cirrhosis in man, and he has since endeavoured to reveal a microbe in cases of the latter. In one case a microbe was procured, but it died on the fifth day. The chief difficulty lay in the staining of the micro-organism in the tissues, all colours tried having faded so rapidly. This was overcome by bleaching very deeply stained sections in the sunlight for a short time daily for two weeks or more. In this way, using carbolised fuchsin, the author had been able to discover the same characteristic organism in the cells of all the cirrhotic livers he had examined during the last three years—26 in number—whether of the small shrunken type or the large hobnailed type, whether associated with jaundice and without ascites or associated with ascites and without jaundice.

The microbe is extraordinarily minute, requiring some experience on the part of the observer and the highest powers of the microscope ($\frac{1}{12}$ or $\frac{1}{16}$ in.) to discover it in the liver cells, in which, however, it is to be found in great abundance. According to the depth of the stain so does it appear, either as an ovoid bacillus (which might easily be mistaken for some stained deposit in the liver cells) or as a minute diplococcus surrounded by a distinct halo. The author knows of no organism so minute, save that recently described by NOCARD and ROUX as being the causative agent of the contagious pleuro-pneumonia in cattle, and the strain upon the eye of the observer is very severe. The question as to whether the micro-organisms in the human and bovine livers are identical is impossible to decide absolutely at present. It must suffice for the present to state that a characteristic microbe is present in the Pictou cattle disease—a disease having certain close resemblances to progressive cirrhosis of the liver in man—and that large numbers of a micro-organism have been revealed by special methods devised by the author in the lower cells in cases of cirrhosis in the human being; and, finally, that these two micro-organisms greatly resemble each other under the microscope.

In the discussion which followed, Dr. ROSENSTEIN (*Leyden*) thought that alcohol as a factor in the production of cirrhosis of the liver was very much overrated. In Holland, where enormous quantities of alcohol were drunk, cirrhosis was not met with in like proportion.—Dr. OSLER (Baltimore) thought that the possibly bacterial origin of some kinds of cirrhosis was worth bearing in mind.

THE NEGRO DEATH-RATE IN AMERICA.

TIME was when the alarming increase of the Negro population in America filled the statesman and philosopher with the gravest anxiety, and was supposed to be pregnant with the most serious danger to the future of the white race; now the outlook appears to be entirely the other way.

It is no longer the wonderful prolificness of the negro which is attracting attention, but on the contrary his excessive death-rate

At a conference held at Hampton by leading members of the negro community, a paper discussing this subject was presented by Dr FURNESS J. SHADD, of Washington.

He pointed out that even under the most favourable sanitary conditions, the death-rate of negroes is more than double that of whites. He continued : "Among the most fruitful causes of this alarming death-rate are the following : Infant mortality, tuberculosis, scrofula, specific infection, gastro-intestinal diseases, heredity, and environment.......... My observation leads me to believe that more factors inimical to the race are found within than without."......... "Consumption is the greatest enemy the negro has except his vices. . . . My experience teaches me that the negro cannot stand local tuberculous infection without running great risk of pulmonary complications, and, furthermore, I think that the mulatto is more susceptible than are the blacks."

"The condition of the negro in all the large cities is a theme worthy the attention of each of us. I know him as he is under the shadow of the goddess of liberty within the District of Columbia. The habits, the disposition, the clannish congregation of most of the race, compel them to inhabit parts of the city densely populated, from which they may easily go at all hours of the night from house to house, from church to

church, to reach kindred spirits, whose only object in life is to eke out a mere living, with endless time after work for the gratification of their pleasures. Hence we find them living in alleys and courts, where families of more than a dozen often occupy very narrow quarters. The sanitary conditions of these houses are frightful. Can we wonder that death claims many who are so situated."

Such are some of the causes mentioned by DR. SHADD to explain the decadence of the American Negro. The question from the scientific aspect is one of the deepest interest.

At the present moment we have enthusiasts in England proclaiming their new doctrine, that the proportionately larger number of microbes in the tropics is the only bar to their colonization by white men; here we have the reverse case, the Negro who can flourish in the intensely microbic tropics degenerating and dying out in the comparatively microbe-free regions of the Southern States.

That races die out when great changes are introduced into their social conditions, and when they are suddenly brought into contact with, what we call, advanced civilisation, is beyond contention, but we think that some more convincing explanation than the microbic one is necessary to account for these things.

RACE INCIDENCE OF PLAGUE IN BOMBAY.

AN endeavour is made in the final Report of the Bombay plague committee to assign a cause for the different degrees of severity with which different sections of the population suffered from the disease.

It is pointed out that the Hindus of Western India take their origin from two territorial divisions:—1, Maharastra and Carnatic, and 2 Gujeratha, and the varying climatic and physical conditions of these two territorial divisions have their effect on the constitution and character of the inhabitants.

The Hindu traders of Mandvi were the first sufferers, and in the first two epidemics well-to-do Gujerat Hindus suffered more than the corresponding classes from other districts.

The excessive mortality amongst the Gujerates is ascribed by the Report to "want of nervous vigour in their soft fleshy bodies, and perhaps to the indoor life that many of them lead."

Of all classes the Jains suffered most, the following is the reason given:—"The true explanation seems to be that while in the census of 1891, the name of Shravak, with a total of 25,000, is confined to those who are Jains by religion, in the health figures the term Shravak is used loosely to include all Hindu traders, except Bhattias and Lohanas. The fact is, that the total population represented by Shravaks in the health returns is probably nearer 50,000 than 25,000."

Dock labourers are supposed to have suffered inordinately, because they are often very exhausted at the end of their days work. They get their meals irregularly, frequently have no rooms and sleep in passages or verandahs in bad localities. When attacked they often stick to their work till completely exhausted.

Hindus of all castes from the N.-W. Provinces and Oudh also suffered heavily, and in their case the cause assigned is their poor food and their residence in affected localities, often to guard houses deserted by their occupants through fear of plague.

Mahomedans and Parsees suffered from their dislike of going to hospital. A number of sick Parsees were secretly removed from affected to non-affected quarters of the town, and thus was set in motion what the report calls a "Parsee Plague Current." However, the leaders of the community atoned for the malpractices of their less enlightened brethren by the energy with which they fought and organized for relief and health camps. As to the Christian community, they were also severe sufferers in both epidemics, but Christians observe that one main source of infection among the Christians came through the rodent and other servants in the houses of rich Parsees. They contracted plague in the discharge of their duties, and were sent to their own homes to die. But this was not the whole source of infection among the Christian community, for, says the report, "when human *vahans* or carriers were guarded against, plague rode in on a sick rat." The Committee offers a tribute of respect and admiration to the conduct of the Christian communities during both epidemics. It is remarked that "whoever the patient, and however well and dearly cared for at home, if the case was declared plague or suspicious, wife, daughter, or son were voluntarily sent to hospital, and all arrangements to disinfect were attended to without demur." It would have been well for Bombay if the example of the Christians had been more widely imitated.

PROGRESS OF PLAGUE IN BOMBAY.

THE number of deaths recorded from Plague in Bombay city for the week ending 18th October was 150, against 240 for the week ending 11th October.

This is a decrease of 90; while the total mortality has fallen from 990 to 828, a decrease of 162.

This sudden improvement in the general health is as pleasing as it is unexpected and its continuance will be eagerly watched for. For the week ending 28th October the deaths fell to 104.

The "Times of India" gives a very credible explanation of this remarkable falling off in the plague mortality, it is as follows:—

"In searching for a sufficient explanation of how a spreading plague has received a sudden check, we are met by the difficulty that spreading plagues remain uninfluenced by suddenly applied sanitary measures, or by sudden climatic changes, and the conclusion has been pretty generally arrived at that spreading plagues are never checked or "stamped out." But the difficulty of finding an explanation as to how or why a plague suddenly showed a decline is removed by considering the people apart from the plague. The plague may be holding its grounds when, of course, the mortality would increase during the period of spread; but the people may change their relation to the plague, and if this change is extensively made, the mortality may be diminished in consequence of such a change. This change and its consequences may be illustrated by a reference to what has actually occurred in Bombay during the last three or four weeks. It is in this period that the rains ceased, and this cessation has been followed by hot and very close weather, especially at nights. As soon as the rains ceased, the labouring population, amongst whom the plague has chiefly prevailed, resumed their usual habit of sleeping on the roads and on open spaces outside the houses. At present, nearly all available places near the houses of the labouring poor are largely filled with nocturnal sleepers. A ramble one night this week through the labouring quarter of the town showed that this well-known practice was once more in full swing. We are assured that not less than 100,000 persons were sleeping out that night, some on the public roads, some on open spaces near the houses, and some in open verandahs. A large portion of the labouring poor had thus suddenly changed their position with reference to the plague, for whereas during the rains they slept indoors in the houses they now sleep in the open. The infection being in the houses, and numbers also, the people who slept in the open

[illegible] have probably, in [illegible] escaped plague.

The [illegible] would, of course, account for plague being more severe in the cold season, as then the population is crowded together in unventilated dwellings.

ALMOST BURIED ALIVE!

SAYS the London *Nursing Record* :—"Many persons have the utmost horror of being buried alive, and apparently imagine that this is a result which not infrequently occurs. Of course there are well authenticated instances in which this terrible mistake has been made, but in this country, at any rate, with our habit of delayed sepulture, it must be extremely rare In tropical climates, where burial usually takes place on the day of death, it is conceivable that the accident may occur more frequently. The following statement, recently published, by Mr. Chew, of Calcutta, is a case in point —

"I died," says Mr. ROGER G. S. CHEW, "as it was supposed, on January 18th, 1874, and was laid out for burial, as the most careful examination failed to show the slightest traces of life I had been in this state for twenty hours, and in another three hours would have been closed up for ever, when my eldest sister, who was leaning over the head of my coffin crying over me, declared she saw my lips move The friends who had come to take their last look at me tried to persuade her it was only fancy, but, as she persisted, Dr DONALDSON was sent for to convince her that I was really dead. For some unexplained reason he had me taken out of my coffin and examined very carefully from head to foot Noticing a peculiar, soft, fluctuating swelling at the base of my neck, just where the clavicles meet the sternum, he went to his brougham, came back with his case of instruments, and, before any one could stop him or ask what he was going to do, laid open the tumour and plunged in a tracheotomy tube, when a quantity of pus escaped, and, releasing the pressure on the carotids and thyroid, was followed by a rush of blood and some movement on my part that startled the doctor Restoratives were used, and I was slowly nursed back to life, but the tracheotomy tube (I still carry the scar) was not finally removed till September, 1875"

Says the *Nursing Record* in comment —'The public have the remedy for any such accident in their own hands, for they can insist upon Parliament making it illegal for any body to be buried until it has been examined by a medical expert"

THE MEDICAL SERVICES IN INDIA.

THE *British Medical Journal* says —"The marked success of the now long-established medical colleges in India and the steadily increasing number of qualified medical men that they are yearly turning out has led the Government to reconsider the question of their being more largely employed in responsible official posts. A very important step in this direction has been sanctioned in a recent Government resolution, which, in addition to minor improvements in the pay and prospects of the civil assistant surgeons, also increases the number of permanent civil surgeoncies that will in future be held by them from 5 to 19, and further intimates a hope that it will shortly be found possible to raise this figure to 22. The pay in these very responsible posts, which will consist of medical charge of districts, the population of which not infrequently amounts to upwards of a million, will vary from Rs. 350, when in temporary charge, to a consolidated pay of Rs. 500 in permanent charge, the latter figure being only Rs. 50 less than that of a commissioned officer of the Indian Medical Service of under twelve years' service who is in permanent civil employment. The greatly improved prospects of this deserving class of indigenous practitioners is the logical outcome of the excellent work of the medical schools of India, and will doubtless greatly stimulate the entrance of a better class of natives for study at the medical colleges—an object which it has long been the wish of the Government to attain. On the other hand, the effect of this measure in decreasing to a considerable extent the number of civil posts hitherto reserved for the officers of the Indian Medical Service must not be overlooked For some years past both the number of civil posts which are open to the service, as well as their emoluments, have steadily been decreasing, and the service has been becoming more and more a military one very similar to the Royal Army Medical Corps, but with the disadvantage of continuous service in India. This new measure will greatly intensify the difficulty of obtaining civil employment, with a view to which it is safe to say at least three-quarters of those who compete for the service enter, though only about half of them are able to obtain it permanently. In such a case as this the interests of the service must necessarily give way to that of the public welfare, but we fear that this measure will be very far from helping to restore the steadily decreasing popularity of the Indian Medical Service"

A SPECIAL PLAGUE COMMISSION FOR INDIA.

SAYS the *British Medical Journal* :—"It has been determined to appoint a Special Commission, to consist of five members, to conduct investigations regarding plague in India. The specific duty of the Commission will be to inquire into the origin of the various outbreaks of plague, and the manner in which the disease is spread An official statement also is required as to the efficacy of the serum treatment and the prevention of plague by means of inoculation. So far as the nominations to serve on this Commission have been made public two Indian civilians, Messrs. J. R. SEWWETT and A CUMINE, have already been appointed, but it is understood that three other members will be nominated by the Secretary of State for India to proceed from this country, of whom one will act as chairman while two will be experts. We congratulate the Indian Government upon the step they have taken, and hope that neither pecuniary considerations nor official prerogative will hamper the authorities in obtaining men of ability to take up the work. There is plenty of work for the Commission to do. Plague, as Dr. SIMPSON in his address at Edinburgh stated, has demonstrated the absolute necessity for a trained sanitary service for India, and although the intended Commission may work out the scientific bearings of the epidemic of plague, it must be remembered that plague is but one of the epidemics which ever threaten India. Plague is but an expression of the general insanitary state, and any Governmental inquiry which does not deal with the general relief of the insanitation of India will but touch the fringe of the evil. A Sanitary Service, complete in all its branches, administrative, investigative, and scientific, is required in India. The Commission about to take up the work may fulfil in some measure one of these—the investigative; but mere investigation, without a staff of local health officers, medical inspectors, and a full staff of "subordinates," can show but little practical results. If the Government of India have merely appointed this Commission to make inquiries into the question, we are afraid much valuable time is being wasted. In India at the present moment two or three dozen medical men are employed specially by the Government for plague work. We would recommend that these medical men, who have by this time become acquainted with what insanitation in India means, be enrolled as health officers, to carry out immediately the suggestions that may

be made by the members of the Plague Commission. In this way a nucleus, at any rate, of a military service for India would be formed and the recommendations of the Commissioners put into execution without delay."

THE INDIAN MEDICAL SERVICE.

Another writes in the *British Medical Journal*:—"Now that your efforts on behalf of the Army Medical Staff have come to such a successful issue, will you kindly bring to notice some of the grievances of the Indian service? There can be no doubt that service is not now regarded as highly as it was twenty-five years ago. This is largely on account of so-called economies, among which may be enumerated Excessive reduction of administration and other lucrative appointments; the difficulty of getting leave or furlough except on medical certificate, the cutting down of allowances to the lowest scale, as witnessed in the last campaign incessant transfers and removals, delay in carrying promotions on vacancies. I consider that there is a want of *esprit de corps* in the Indian service which prevents united effort as in the Army Medical Service. The competition for the Indian Medical Service is gradually falling off, because the conditions of service are not good enough The remedies may be briefly summarised as follows

1. The Surgeon-General with the Government of India should be Secretary to Government in the Medical Department,
2. Inspector-generals of civil hospitals should be secretaries in the medical department to their respective local governments,
3. The strength of the service should be materially increased.
4. Officers in civil employ should draw their full pay, instead of having allowances docked under the idea they can be recouped by private fees.
5. Transfers should be much reduced,
6. Officers under the rank of major should draw horse allowance.
7. A general increase of pay should be made

There are other reforms that might be suggested, but it is a notable fact that during the past twenty years the officers who have found advancement have been those who have advised the cutting down of appointments and allowances!"

The *British Medical Journal* thus sums up its correspondent's grievances which seem to hinge upon two points, which may account for a waning popularity of the I M S. —

1. Indian medical appointments are no longer sufficiently numerous or lucrative.
2. The establishment is decidedly undermanned."

BOMBAY MEDICAL UNION ON THE BENEFITS OF INOCULATION.

The Bombay Medical Union, after a discussion extending over three or four meetings, passed on the 8th November the following resolution: "That this meeting is of opinion that, considering the data now available and the satisfactory results of the observations collected regarding the protective effect of Professor HAFFKINE'S plague prophylactic, the time has arrived for the profession to make a definite pronouncement on the subject and to invite the public to resort freely to protective treatment as the only safeguard against the plague The immunity derived from inoculation, when done with a full dose, appears to last for at least six months, but there is a possibility of its lasting much longer. From observations collected lately, it appears that a second inoculation, done ten days or so after the first, further reduces the incidence of plague in those who resort to inoculation, and a third, if such be practicable, would increase the immunity still further. The public are, therefore, to be invited to resort to at least two inoculations, and extend to a third if practicable. The duration of the protection is also likely to be enhanced by such a repetition. This meeting of medical men, who have had wide experience of inoculation on persons of all positions, ages, and condition, declares emphatically that the rumours of inoculation originating different diseases are devoid of any foundation; that considering the nature of the prophylactic, which does not contain any living germs, such an eventuality is absolutely impossible; and that there are no facts to show that inoculation aggravates any existing ailments, despite the rare and isolated instances which may at first suggest such an idea" Four native doctors opposed the resolution.

TUBERCULOSIS AND PSEUDO-TUBERCULOSIS.

Bacteriology makes yearly advances on so large a scale that the clinician, surgeon, and practitioner must rely more and more on those who make a speciality of the science, for even the professional pathologist is becoming handicapped. For several years physicians have talked glibly of the bacillus tuberculosis, and apparently on safe grounds, for it seemed as though that microbe had been proved to be a "good species," as zoologists would say, as definite as felis leo or ilex aquifolia, and with as definite specific habits and properties. Dr. FLEXNER, of Baltimore, has recently detected an organism in tuberculous deposits from a man who died with extensive consolidation in both lungs, the symptoms being precisely those characteristic of pulmonary tuberculosis. This germ is figured and described in the July number of the New York *Journal of Experimental Medicine*. It is not simply another species of the genus bacillus, to which B. tuberculosis belongs, on the contrary, it is included in a totally different class of micro organisms, the streptothrices as defined by Kruse The genus streptothrix includes S. actinomyces, associated with a well-known disease, and S. Madurae, found in Madura foot After a careful description of the micro-organism, which he terms S. pseudo-tuberculosa, and a full account of the histological changes with which he found it associated, Dr FLEXNER concludes that this species is the cause of the pathological process which he detected and that especially in peritoneal deposits, the pathological picture of this disease, which he terms "pseudo-tuberculosis hominis streptothricia," resembles so nearly tuberculosis in human beings that the two diseases can be separated only by the demonstration of the causative micro-organism in each case; yet Dr FLEXNER thinks that possibly at some future time a clinical picture differing from that of true tuberculosis may come to be established for this disease.

TREATMENT OF PERITONSILLAR ABSCESS.

THE following method is advocated by Dr. DUNBAR ROY. As the majority of abscesses follow from tonsillitis, his efforts are always to the abortion of this inflammation, and this he accomplishes, if at all, by the administration of a good dose of calomel followed by a saline purge. The tonsil and surrounding pillars are painted thoroughly with a sixty-gram solution of nitrate of silver, and this is repeated once daily. He starts early with hot gargles of vinegar and hot water, as hot as can be borne, and then hot fomentations are applied externally. Salol and phenacetine always make the patient feel more comfortable, and for this reason alone he prescribes them.

As to incisions, he has never opened a peritonsillar abscess at any point except above and posteriorly to the tonsil, notwithstanding such eminent authority as he quoted to the contrary. Nor, furthermore, does he make deep incisions with a knife, but simply a small puncture about an eighth of

[illegible] this opening [illegible] described. If [illegible] will readily make its way, and the [illegible] at the opening. If pus is [illegible] incision is enlarged and the abscess [illegible] than make a deep incision [illegible] has seen such an incision followed by [illegible] and no pus found, and if the patient is at all nervous, be it man or woman, the sight of spitting out [illegible] of blood is extremely alarming."

FAITH-HEALING.

We learn from the *British Medical Journal* that :—"An inquest held at Camberley on Saturday last brought to light an astounding and melancholy instance of credulity among people who from their position and education ought to have known better. Major CECIL LESTER, aged 88, Instructor of Military Topography at Sandhurst, was the patient and victim. It appears that he was suffering from tuberculous peritonitis, and was being attended by Lieutenant-Colonels CLARKE and GILLESPIE, R.A.M.C., up to September 5th. On that date they were told their services would no longer be required, as a "Christian Scientist" had been sent for. Mrs. ESTHER GRANT, living at ALBERT GATE MANSIONS, was called as a witness, and deposed that :

On the September 5th she received a telegram to attend the deceased to give Christian Scientist treatment. She commenced her treatment at once before she saw the patient.

The coroner : Before you saw him ?

Witness : Yes, directly I got the wire.

The Coroner : I should like to know how you treated him.

Witness : By what we should call taking up the right thought of the omnipotence and love of God. The witness proceeding, said she had no experience in the treatment of peritonitis, from which the patient's sister told her he was suffering............They made a charge of a guinea a-week for the treatment. No drugs of any kind were administered to the deceased............She continued the treatment while she was away in London...........Nothing beyond Christian Science treatment was done to relieve the sufferer.

The British Medical Journal goes on to say :—"The only consolation one can derive from this depressing exhibition of folly and cruelty is that it gave the jury an opportunity of expressing "their strong sense of abhorrence of the so-called treatment of the deceased by Mrs. GRANT, as representing the Christian Scientist Society, in not taking any material means for alleviating the sufferings of the patient." To attempt to reason with such crass superstition would be waste of time. We can only hope that the law, which has been many times brought to bear upon the poor uneducated, and obviously sincere "Peculiar People" will not look on with indifference at similar practices amongst the well-to-do and well-educated."

SELF-INDUCED INSTRUMENTAL ABORTION.

Dr. [illegible], of Chester relates the following case of self-induced abortion in the *Medical Times & Hospital Gazette* :—"I was telephoned for one evening, some two years ago, between eight and nine o'clock, to see a woman. When I arrived at the address given me, I found a young married woman in bed, complaining of abdominal pain. She had a temperature of about 100 deg. F., a quick pulse, and slightly furred tongue. On investigating the cause of her condition I learnt [illegible] weeks pregnant, and had been taking the [illegible] to get rid of the [illegible]. She determined [illegible] failed to accomplish her desire, to [illegible] interference. The instrument used [illegible] needle, which she said [illegible] it. The process caused [illegible] pain. [illegible] her [illegible] could [illegible] formation [illegible] of the [illegible] maintained [illegible] everything had gone away. This had [illegible] four days before I was sent for. The discharge, when I saw her, was not markedly offensive, and was not very free. [illegible] perfectly well.

She had acquired venereal trouble from [illegible] during her second pregnancy, which had been [illegible] to the child. She had, consequently, made up her mind never to have any more children. I spoke very sharply to her about the criminality and danger of her procedure, but her only reply was that she would rather die than bring another child into the world.

HEPATECTOMY.

In the course of a paper on Partial Hepatectomy for Cancer, Mr. MAYO ROBSON (Leeds) enunciated the following conclusions.

1. Seeing that statistics agree in showing the frequent association of gallstones and primary cancer of the gall-bladder and liver, it is desirable that cases of cholelithiasis should be treated surgically at an earlier stage than has hitherto been the custom. 2. In all cases of tumour of the gall-bladder, even if unaccompanied by symptoms, an operation is advisable, and the obstruction, usually a calculus, should be removed. 3. If these rules were followed, probably primary cancer of the gall-bladder and liver would be rarer. 4. If early operation in cases of tumour of the gall-bladder were followed out, then, even if primary cancer had commenced, it would be in an early stage, and a complete recovery by partial hepatectomy might be hoped for. 5. An exploratory operation, even in a patient seriously ill with a localised tumour in the region of the gall-bladder, is worth advocating, as though malignant disease may be feared, the disease may be only inflammatory and therefore capable of relief. 6. If there are any secondary nodules in the liver, or if adjoining viscera are seen to be invaded, the operation had better be no more than exploratory.

THE ROYAL ARMY MEDICAL CORPS.

The Secretary of State for War has, in the exercise of the power specially reserved to him, recently requested certain medical bodies to nominate persons for admission to the Royal Army Medical Corps without examination. The following medical bodies were each asked to nominate two candidates : St. Thomas's Hospital, St. Bartholomew's Hospital, Guy's Hospital, Owens College, Manchester ; Glasgow University, Edinburgh University, Trinity College, Dublin ; and the Royal College of Surgeons in Ireland. The nominations of the body last named have not yet been formally received, and St. Thomas' Hospital and Edinburgh University have only nominated one candidate each. Aberdeen University was invited to supply one of these deficiencies, but has not found it possible to do so in the limited time [illegible] available, for it is desired that all the gentlemen nominated should join the class now being held at the Army Medical School at Netley. Some, indeed, have already done so. These gentlemen will rank after the candidates successful at the examination in August, and their places, when they receive their commissions next February, will be determined by the results of the examination in special subjects held at Netley at the conclusion of the present course. The full complement of the corps is not yet made up, and a considerable number of commissions will, it is understood, be offered at the competition for admission to Netley next February.

MOSQUITOES AND MALARIA.

It is encouraging to find the New York Medical Record write as follows of the labours of Dr. Ronald Ross, I.M.S. :—

"The account of the researches of Surgeon-Major Ross in the matter of an extra-anthropic host of the malarial plasmodium read by Dr. Patrick Manson in the section on tropical diseases of the British Medical Association, and contained in our special report of the Edinburgh meeting, is one that cannot fail to interest our readers everywhere. Not only is the subject of malaria one of perennial concern to practitioners in many parts of the United States, but the method pursued by this patient worker, and that by which he achieved such brilliant results, is an example of what a truly scientific investigation should be. Dr. Ross did not content himself with the observation that there is no malaria in certain districts where mosquitoes do not bite—shrewd guesses based upon such coincidences had been made by Marchiafava and Manson years before Koch gravely announced the theory as his own—but he followed the plasmodium in all its evolutions and its travels through the body of the mosquito. It is true his studies were, for several reasons, made with the plasmodia pathogenic to birds, but the results may fairly be applied to man, and we have as a result the actual demonstration that, in whatever other ways malaria may enter the human body, one way at least is through the proboscides of the Culicidæ."

RAILWAY MEDICAL OFFICERS AND THEIR STATUS.

We notice with much regret and surprise, the omission of Railway Medical Officers as part of the "Graded List of Superior Officers" in the "Lists" recently published by the various State Railways of the country. The omission may be accidental, as medical officers are subject to frequent transfers, but the bare fact of such omission from the "List of Superior Officers" leads to the natural supposition and the very obvious conclusion, that medical officers on State railways are *not* superior officers but *subordinates*. Now as engine drivers, guards and clerks are the only classes excluded from the "List of Superior Officers," the exclusion of medical officers brings them on the same social and official level as these classes, and they therefore cease to command that consideration and respect among railway employes which their professional position deserves. Naturally there is much heartburning among railway medical officers owing to this invidious state of things in regard to their status. We have no desire to make comparisions between the various occupants of the "List of Superior Officers" of State Railways, but we feel that that list can suffer in no way by the admission into its fold of all Railway Medical Officers. They certainly can claim a position there by virtue of their being gazetted officers, and we sincerely trust that attention having been drawn to a very just cause of offence, it will be removed by those in authority on our railway administrations.

THE INDEPENDENT MEDICAL COLLEGE OF CHICAGO IN BOMBAY!

The *Times of India* says :—"We learn from the advertisement columns of a contemporary that it is proposed to hold an examination in Bombay in December next, for the M.D. degree of the "Independent Medical College, Chicago."

The gentleman running the show calls himself the secretary of the representative committee, and we learn that the examination is to be held under the supervision of a representative committee appointed by the college authorities. As we have heard a good deal from time to time of bogus American degrees, we should be glad to know more of the gentleman's credentials, and to see the names of the representative committee.

Perambulating colleges of this description are a novelty in India, and we think it would be better if they confined their wanderings to their own country.

India has already a superfluity of medical colleges and medical diplomas of its own, and can very well do without the latest exhibition of Yankee enterprise.

We trust that this innovation will impress upon the government the absolute necessity of doing something to systematise Medical Education and Medical degrees in India."

SUPERINTENDENT OF THE MILITARY MEDICAL CADETS OF CALCUTTA.

Major H. C. Hodgkins, I. M. S. the popular and successful Superintendent of the Calcutta Military Medical Cadets, is on the eve of his retirement from the service, and the time has come for appointing his successor. The post is an exceedingly onerous one and is surrounded with many difficulties which call for an exhibition of kindliness and firmness, supported by a personal individuality that will command respect. Major Hodgkins has filled his difficult office with marked ability and conspicuous success, so that our European Military Cadets at the Calcutta Medical College now enjoy a reputation for sobriety, industry and integrity such as they were never so largely credited with before. Rowdyism has died out and our young military friends are doing well in both lecture room and hospital work. A serious responsibility rests with the Director-General I. M. S. in nominating Major Hodgkins' successor, and we earnestly hope that no second rate man will be appointed. We need an officer of sound English education, thorough English manners, gentlemanly bearing and one well up in professional work. He should be a strict disciplinarian but not a bully or a martinet. A careless choice may disharmonise the working of the whole class and disorganise the many years of patient labor which Major Hodgkins has spent in building up the reputation of this class.

MEDICINAL CURE OF STERILITY.

Many a household is rendered unhappy by the absence of children. This is sometimes owing to the husband, and sometimes owing to the wife, but in many cases it is almost impossible to determine the real cause of the trouble. Here Jones, of Edinburgh, counsels not to forget the sedative affinity of belladonna toward the female sexual organs, and gives an opinion that the drug is followed by more or less benefit in very disease to which these parts are liable ; and in married women who, though apparently enjoying the best of health and never suffering from any irregularity of the sexual organs, are yet sterile, the exhibition of belladonna internally for some weeks is so frequently followed by pregnancy as to preclude considering the occurrence as a mere coincidence. Though advancing no theory in regard to the matter, Jones has noticed that during the exhibition of the drug the external genitals become more relaxed and the os and cervix more pliable and softened.

INOCULATION FOR PLAGUE.

We take the following from the *British Medical Journal* :—"W. G. B. writes : I have a friend about to proceed to India, and as he must land, even for a short time, at some one of the ports where plague is present, can I recommend him to be inoculated there before proceeding up country by rail, or will it be unnecessary for him to be inoculated, as he will be for so short a time exposed to the infection ? In the event of being inoculated how long would he be detained before he could resume his journey ?

The *British Medical Journal* referred this letter to Mr. James Cantlie, who writes: "I would recommend the proced

[illegible] as soon as India is reached. Bombay is the port where they are most readily done. Inoculation will not involve a delay of more than three days, which is absolutely necessary. It is well to get off disembarking by train for three days after being inoculated. If a journey is to be made by sea after inoculation no delay is necessary."

THE WORK OF CIVIL SURGEONS.

Colonel Hendley, Inspector General of Civil Hospitals in Bengal, is of opinion that there is no reason why Civil Surgeons should not do more inspection, which, he thinks, would be easy without detriment to their other duties, if they arranged their tours in a more systematic manner than they seem to do at present. Sir John Woodburn fully concurs in this opinion. His Honour observes that medical subordinates at outlying stations cannot be expected to do their work efficiently without proper supervision, any more than officers of the same standing in other Departments and His Honour holds that it is just as necessary for a Civil Surgeon to inspect his dispensaries as for a District Officer to inspect his sub-divisions or a Superintendent of Police, his *thanas*. Nor is it sufficient to examine merely the dispensary register, and the state of instruments and drugs. A Civil Surgeon should always visit a dispensary when patients are present and he should require the officer in charge to examine them in his presence and make sure that the examination is performed efficiently and not perfunctorily. There seems to be reason to fear that very few Civil Surgeons do their inspection work properly and carefully, and we note that the subject is receiving the earnest attention of the Inspector-General. The Lieutenant-Governor desires to assure Dr. Hendley of the full support of Government in his efforts to effect what His Honour justly considers to be a much needed reform.

GOVERNMENT RECOGNITION OF INOCULATION.

The Government have recently given a practical demonstration of their previously expressed belief in the efficacy of inoculation.

By a resolution issued in September, inoculated persons may be exempted from segregation and from observation when travelling, subject to the disinfection of their clothes.

The Bengal Government by a resolution dated the 31st October ordered the exemption from detention at plague observation camps of persons holding inoculation certificates, except for such a period as may be required to disinfect baggage and clothing that may be considered suspicious.

NEW MEMBERS OF THE INDIAN MEDICAL ASSOCIATION.

The following gentlemen have joined the Association since our last publication :—

Abdul Razak, C.M.S., Civil Hospital, Aden.

Benoonath Das, C.M.S., Sokiatenga Garden, Upper Assam.

J. Venkatiswami Naidu, L.M.S., Bapatla, Kistna District.

Saik Eam, C.M.S., Civil Dispensary, Dedaye, Thongwe, Lower Burma.

Khaja Latifuddin Saith, C.M.S., Madura, South India.

J. H. O'Leary, Assistant Surgeon, Station Hospital, Allahabad.

Kaly Mavala Chuckerbutty, C.M.S., Tippick Tea Estate, Talap, Post Office, Dibrugarh, Assam.

Ghulam Ali, L.M.S., Military Hospital, Patiala.

K. Kannan Nambiyar, L.M.S., Feroke, Malabar.

Ahmad Hussain, C.M.S., Kohat Mountain Battery, Fort Lockhart.

Nyalari Anchaiyya, C.M.S., Lunatic Asylum, Vizagapatam, Madras.

INJURIES OF THE ELBOW-JOINT.

In the course of a discussion on this subject before the British Medical Association at Edinburgh, Professor Chiene remarked that injuries in the neighbourhood of the elbow-joint could be treated in three positions. 1. The fully extended position was best for severe cases in which it was necessary to keep the patient in bed; if necessary, traction and a weight and pulley might be used as in the lower limb. 2. The rectangular position was suitable for cases of fracture of the olecranon *without displacement*. 3. In all other fractures the fully flexed position is best; no anterior pad should be used beyond a little lint: and the limb should be fixed to the chest with a layer of lint between. After a week massage might be employed and a little movement may be attempted.

GERMAN COMMERCIALISM.

Says the *New York Medical Record* :—Another illustration of the degradation of German science, which has been so conspicuous in the open alliances between Koch and other bacteriologists and the manufacturing chemists, is furnished by the attempts of Behring to establish a monopoly in diphtheria antitoxin. After many failures he has at last secured a patent of the manufacture of this remedy in the United States, and now thinks he is in position, with loaded syringe, to demand of every defenceless babe its money or its life. We do not believe the courts will legalise any such impudent attempt at brigandage.

UNORGANIZED CHARITY.

The medical profession is about the only calling in life that is not, or need not be, dependent upon organization to enable it to give safely, wisely and quickly. The needy are always with us, and all that is needed is a plenty of this world's goods and a kindly temperament, for as the poet says :—

So many gods, so many creeds,
So many paths that twist and wind,
While just the art of being kind
Leaves all the other arts behind.

DOCTOR AND CLERGYMAN.

Here is a little "jeu d'esprit" about the Doctor and the Clergyman :—

Doctor and Parson hand in hand
Most fittingly we find;
The one the suffering body cures,
The other tends the mind.

The Parson points the way to heaven;
And then, with tender care,
The Doctor consummates the work,
And sends the patient there!

PLAGUE IN BANGALORE AND MADRAS.

Plague continues to maintain its hold on Bangalore, the following are the returns for the 19th to the 24th October:—

October	19th	59	cases	56	deaths.
"	20th	85	"	49	"
"	21st	89	"	26	"
"	22nd	36	"	35	"
"	23rd	26	"	32	"
"	24th	35	"	48	"

up to the 23rd, 11,000 persons had been inoculated. Inquiries it is said equally with rats carry the infection.

Up to the 26th October no case of plague had been officially declared in Madras Town.

In the Madras Presidency plague has been reported at the following places. Two cases at Cuddalore, North Arcot District, Three cases at Pallivasal, Wallajah taluq, one fatal case at Kannanangalam, one case at Vellore, one a Tellar, and two at Guntakal.

[illegible]

The following is a list of the [illegible] recent examination of the [illegible]

1st [illegible], Aswini [illegible] 2nd [illegible] [illegible] Nath Bhattacharji [illegible] Chandra [illegible] 1454; 3rd [illegible] [illegible] 1420.

[illegible] *Certificate Examination, 1st Division, in order of merit*: [illegible], Aswini Kumar; [illegible], Nogendra [illegible]; [illegible], Bama Charan; [illegible], Jatindra Nath; [illegible], Bhagabati Charan; Chowdhury, Surendra [illegible]; [illegible], Jotish Chandra; Pal, Sriman Chandra; [illegible], Rajani [illegible]; Ghosh, Jogesh Chandra.

2nd Division, in alphabetical order:—Abdur, Rahaman; Banerji, Sarat Chandra; Banerji, Bihari Lal; Banerji, Kissori Mohan; [illegible]; Banerji, Bisseswar; Chakravarty, [illegible]; Chakravarty, [illegible] Lal; Chandra, [illegible]; Chatterji, Krisna Lal; Chatterji, Jotindra Narain; [illegible]; Chatterji, Dijendra Nath; Datta, Gosto Behari; Dey, Brojendra Kumar; Dey, Bankim Chandra; Ganguli, Jotish Chandra; Ganguli, Nritya Gopal; Ghosal, [illegible] Lal; Ghosh, [illegible] Krisna; Ghosh, Jogendra Nath; Ghosh, Hem Chandra; Ghosh, Gojendra Nath; Ghosh, Upendra Nath; Ghosh, Atal Chandra; Gupta, Satya Kinkar; Kuar, Narain Pada; Majumdar, Baroda Prosad; Mukerji, Baroda Prosad; [illegible], Aswini Kumar; Pal, Ambica Charan; Pal, Srish Chandra; Pan, Upendra Nath; Protihar, Gosta Behari; Roy, [illegible] Chandra; Shaha, Satya Charan; Sen, Jotindra Nath; Sen, [illegible] Kumar.

[illegible] License Examination 1st Division in order of merit:—Sen, Jagadish Chandra; Mukerji, Durgagati; Mukerji, Ashutosh.

2nd Division in alphabetical order:—Adhicary, Parna Chandra. Asbab, Uddin; Banerji, Nibaran Chandra; Banerji, Jotindra Nath; Banerji, Phani Bhushan; Banerji, Sarat Chandra; Bhattacharji, Jotindra Nath; Bhattacharji, Surendra Nath; Chakravarty, Rajani Kanta; Chakravarty, Hari Das; Chanak, Tincouri; Chandra, Radharaman; Chatterji, Upendra Nath; Chatterji, Surendra Nath; Chatterji, Ashutosh, No 1; Chatterji, Ashutosh No. 2; Das Gupta, Ananta Kumar; Datta Charu Chandra; Dey, Jotindra Nath; Dey Bala, Rajendra Chandra; Gan, Amar Nath; Ghosh, Nabakumar; Ghosh, Upendra Nath; Ghosh, Nakuleswar; Ghosh, Kanti Chandra; Ghosh, Devendra Nath; Gupta, Rishikesh; Kar, Guru Nath; Karmoker, Rupsal; Mattra, Mohendra Narain; Mittra, Aswini Kumar; Mitter, Moni Lal; Mondal, Nanda Lal; Mukerji, Rasik Lal; Pal, Kissory Mohan; Roy, Golock Behari; Sadhu, Ratanray; Samanta, Norendra Narain; Sen Gupta, Probhat Chandra; Saha, Shashadhar; Saha, Gopendra Nath; Saha, Jogendra Nath; Sutradhar, Nandakumar; Tarafdar, Parbati Nath.

[illegible] L.C.M.S. Examination, 2nd Division, in alphabetical order:—Banerji, Sushil Kumar; Banerji, Srish Chandra; Bhattacharji, Makhan Lal; Bhoumic, Jotindra Mohan; Biswas, Jogendra Nath; Chukravarty, Purna Chandra; Dalal, Gopal Chandra; Ghosh, Charu Chandra; Ghosh, Upendra Chandra; Mondol, Binode Behari; Samyal, Jogesh Chandra; Sen, [illegible] Kanta; Sen Gupta, Rajendra Lal; Talukdar, Amjed Ali.

2nd Certificate Examination, 1st Division:—Bhattacharji, Monmotha Nath.

2nd Divisions, in alphabetical order:—Adhicary, Ramrenu, Bala, Priya Nath; Banerji, Phani Bhusan; Banerji, Khetra Nath; Banikya, Akhil Chandra; Bhaduri, Prantundhu; Bhandari, Hem Chandra; Bhattacharji, Kali Charan; Chakravarty, Hem Chandra; Chakravarty, Srish Chandra; Das Bairagy, Binode Behari; Ghosh, Upendra Chandra I.; Ghosh, Jadu Nath; Ghosh, Gosta Behari; Ghosh, Hari Das; Kundu, Oya Nath; Kundu, Keshab Lal; Lahiri, Hourish Chandra; Mohomed, Abbas Ali; Mattra, [illegible] Nath; Mitra, Baroda Kanta; Mitra, Probodh Chandra; Mukerji, Rampada; Mukerji Mati Lal; Mukerji, Gyanendra Nath; Mukerji, Manibhusan; Neogy, Kartick Chandra; Pal, [illegible] Chandra; Pal, Amulya Nath; Roy, Haripado; Roy, Gunendra Nath; Roy, Arnnodoi; Roy, Surendra Nath; Saraswati, Hari [illegible]; Sircar, Gopal Chandra; Sircar, Jotindra Nath; Sircar, [illegible]; Shaha, Mohanta Chandra; Singha, Kalidas; Singha, [illegible] Nath; Singha, Haran Chandra; Talapatra, Beyja Behari.

[illegible]

[illegible] collected [illegible] scheme which will [illegible] in consequence [illegible] into abeyance. The General Committee [illegible] to collect seventy-seven thousand rupees, and are powerless to act on this without Government assistance. It is understood that the Government of India [illegible] prepared to give a grant, unless the Institute is [illegible] guaranteed for its maintenance.

SHORT ITEMS AND PERSONALITIES.

Dr. T. Gilbart Smith has been elected Chairman of Council of the Irish Medical Schools and Graduates' Association in succession to Dr. Phineas Abraham, whose three years' tenure of office terminated at the end of this month. Sir William MacCormac, Bart., K.C.V.O., will be the guest of the Association at the autumn banquet of the Association, which will take place on November 23rd at the Café Monico, when the chair will be taken by the President, Dr. [illegible] Hapther.

Mr. Frederick Treves has resigned the office of Surgeon to the London Hospital, which he has held for the last fourteen years, having previously served for five years as Assistant Surgeon. The retirement of Mr. Treves six years before the expiration of his term of office will be a loss to the hospital and medical school in connection with which his early reputation was made; but we understand that he has found the claims of private practice incompatible with the exacting duties of surgeon to a large hospital.

Surgeon-General W. Taylor, M.D., A.M.S., who was Principal Medical Officer of the Khartoum Expedition, is about to proceed to India, having been selected to succeed Surgeon-General A. A. Gore, M.D., as Principal Medical Officer of the British Force at Army Headquarters, Surgeon-General Robert Harvey has been formally confirmed in the appointment of Director-General of the Indian Medical Service at Headquarters, Simla, in succession to Surgeon-General Cleghorn, retired.

The *London Gazette* announces that the Queen has appointed Sir William McCormac, Bart., President of the Royal College of Surgeons, and Sir Francis Henry Laking, M.D., to be Knights Commander of the Royal Victorian Order, and Mr. Alfred Downing Fripp and Fleet-Surgeon Alfred Gideon Delmege, M.D., to be Members of the Fourth Class of the same Order, in recognition of their services in connection with the recent accident met with by the Prince of Wales.

It is announced that the new gown to be worn by Fellows of the Royal College of Surgeons on ceremonial occasions will be of black stuff with crimson satin facings of a regulation shape and shade. Fellows who are graduates of any university may wear, instead of the fellow's gown, the gowns representing their degrees, provided they are more attractive in appearance than the former.

The Home authorities have approved of the following composition of the Plague Commission:—Professor Fraser, Edinburgh University, as President; Professor Wright, Netley College; Dr. Ruffer, Egyptian Sanitary Department; Mr. J. P. Hewett, Home Secretary; Mr. Cummins, C.S., Bombay, as Members; and Mr. Hallifax, Deputy Commissioner, Lahore Secretary.

Sir John Banks, K.C.B., Regius Professor of Medicine in the University of Dublin has resigned that position, which he has held for many years with great distinction. The Board has accepted his resignation with the expression of deep regret. Sir Francis Cruise and Dr. [illegible] (King's Professor of Medicine in the Medical School) are mentioned as candidates for the office.

Dr. Arnold Caddy, F.R.C.S., [illegible] tice in Calcutta [illegible] through Paris, Berlin [illegible] largely [illegible] are will be pleased [illegible] wards be a frequent [illegible]

The brought of the 21st Lancers (Private Pedder), who was instrumental in saving the life of Major Pinches, R.A.M.C. is reported, to recommended for the Victoria Cross. Major Pinches had one horse shot under him and another wounded. Private Pedder displayed great bravery in catching two stray horses amidst the dervishes in order that Major Pinches might escape.

While Dr. Sheridan was making a vaginal examination of a young woman he had been called in to at Stradone, Ireland, her mother locked the door of the room and then gave him in custody on a charge of rape. The Magistrate completely exonerated Dr. Sheridan who left the court without a stain on his character and was welcomed home by the fife and drum bands of the town.

A man who paid a Vienna specialist 147 marks (*i.e.* Rs. 100) for curing him of tapeworm sued the doctor for a return of 84 marks (Rs. 60) on the plea that the worm was only a short one. The doctor said he did not remove tapeworms at so much per yard; but finally returned 10 marks (*i.e.* Rs. 6¾).

According to Dr. Sebrwald a speed of 12 feet per second or a distance of 25 to 30 miles on the level in one day is quite sufficient for one who rides the bicycle for recreation, and 105 miles per day more than enough for a trained rider, while the maximal riding endurance of trained riders is 322 miles in 24 hours or 24 miles per hour.

The scope of inquiry of the Plague Commission includes the origin of the different outbreaks, the way the disease spreads, and the effects of prophylactic curative serums will be tried The Commission reaches Bombay by the end of the present month.

Persistent dysphagia of 21 days or more according to Dr J. Garel, is diagnostic of syphilis and is often the first and only sign the patient notes. Unless it be due to incipient cancer or tuberculosis, the pain in swallowing vanishes with 48 hours' treatment with Potassium Iodide.

Colonel F. H. Fenn, R A. M C., now at Peshawar, has been offered and has accepted the post of Surgeon to Lord Curzon Colonel Fenn filled this post during Lord Lansdowne's Viceroyalty, and will be well remembered as an extremely popular member of his staff

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Mrs. Powell, widow of Apothecary William Powell, aged 66, died in the Bangalore city plague hospital the other day, and was buried outside the plague camp by the Rev. W. Muspratt, the authorities refusing permission to bury in the cemetery.

An examination for 22 appointments in Her Majesty's Indian Medical Service will be held in London in February 1899. Copies of the regulations for the examination, and information as to pay, etc, can be obtained on application to the Under-Secretary of State, India Office.

Of all the countries in the world it is Servia which contains the most centenarians. Among its less than 1,300,000 inhabitants, there are actually 575 persons whose age exceeds 100 years. In little Switzerland there is not a single person whose years number five score.

It has been officially announced from the War Office that the positions of Director-General of the Army Medical Department and of the Veterinary Department will, in future, be held for five years only, unless that period is specially extended for an additional two years.

Surgeon-General W. Taylor, M.D., A.M.S., Principal Medical Officer of the Khartoum Expedition, has been selected to succeed Surgeon-General A. A. Gore, M.D. as Principal Medical Officer of the British Forces at Army Headquarters.

Says the *New York Medical Record*:—The Bengalee have no knuckle. Jews as a rule have large ones. In Greeks the thumb only has one.

Major Herbert Jekyl Dyson, I. M. S. L.R.C.P., London 1882, M.R.C.S. 1882 F.R.C.S. 1884; Sanitary Commissioner of Bengal, is the son of a well-known Anglo-Indian Schoolmaster of Hooghly in Bengal

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We acknowledge with our best thanks, the kindness and courtesy of Dr. Max Simon, M.D., the Principal Civil Medical Officer of the Straits Settlements in sending us the Civil Hospital Reports of his administration.

We have to acknowledge with our best thanks the kindness and courtesy of the Bengal Government in ordering that the *Indian Medical Record* shall in future be supplied with copies of its Sanitary and Medical Reports free of cost

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Several cases of enteric have occurred here recently among the troops at Poona and Kirkee. A committee of medical men has been appointed to inquire into the causes of enteric fever. It is expected their reports will appear very shortly.

Under the new law any body who sells, causes to be sold or gives tobacco or cigarettes to any person under 18 years of age, will, in New York City, be liable to $10 fine or 10 days' imprisonment or both.

Professor Tracukel tells of a slightly built virgin, æt. 30, whose right breast was 14 and the left one 17 inches in diameter, while the greatest circumference of either was 45 inches.

Lieutenant-Colonel J Lewtas, I.M.S., Civil Surgeon of Darjeeling, is allowed privilege leave for ninety days, with effect from the 1st December 1898.

Little Doctor Cecil Robert Stevens of Eden Hospital fame, has parted with his "speciality" and has gone to *winter* in Darjeeling during the absence of Dr. J. Lewtas, the popular Civil Surgeon of that sanatorium.

Charles Monks, L.R.C.S., (Ireland) Surgeon-Lieutenant-Colonel, I.M.S., and Bakhshi Isaac Rahim, Kings College, London, passed the second examination of the Board of the R.C.S. Eng. for the F.R.C.S. in Anatomy and Physiology on the 10th October last

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In France it is a punishable offence for any one to give infants under one year any form of solid food unless such be ordered by a prescription written by a legally qualified medical man.

The Prussian Minister of Finance, Herr Von Miquel, has proposed a plan for taxing professors of medicine who also practise. He thinks that any professor enjoying a practice worth $5000 per annum should receive no salary.

Dr. John William Moore, M.A., M.D., F.R.C.P., has been elected President of the Royal College of Physicians in Ireland, a most worthy nomination. Dr. Moore is the talented Editor of the *Dublin Journal of Medical Science*.

Colonel R. [illegible] Wright, I.M.S. [illegible] Army a few years ago, has returned to India and has purchased a fine [illegible] at Ootacamund, where he and his wife (India's [illegible] authoress on [illegible]) will now continue to reside.

[illegible] Surgeon-Lieutenant-Colonel, I. M. S., writes :—"I [illegible] had not read till to-day (8th Nov.) your article on the I. M. S., as an Army Medical Corps" in the *Record* of the [illegible] October. Having read it now I wish to say I quite agree with every word of it and wish your scheme all success"

It has been decided that the Administrative control of the Office of Imperial Bacteriologist shall be transferred from the Inspector-General in the Civil Veterinary Department, to the Director-General of the Indian Medical Service.

[illegible] gives it as his conclusion that the safest plan of management of all cases of appendicitis, take them as they come, is the immediate removal of the appendix and the drainage of the infected cavities.

The Committee of the Bengal Chamber of Commerce, in connection with the New Calcutta Municipal bill, have recommended that one of the four Government nominees on the General Committee should be an Anglo-Indian.

According to Webber in the *Lancet*, of twenty-four tetanus patients treated with anti-toxin, twelve recovered and twelve died. The less violent the symptoms the better the results.

We are glad to note that Mr B Pestonjee L M S, Ceylon, has been admitted a Member of the Royal College of Surgeons, England.

Surgeon-General Harvey, Director-General of the Indian Medical Service, left Simla on 30th October on his autumn tour, which will last six weeks.

Dr. Whitmarsh of London, has been found guilty of having performed an illegal operation, and has been sentenced to death, the jury recommending him to mercy.

Mr J. P. Hewett will not after all come out in the *Caledonia*, but arrives with the plague specialists about three weeks hence.

Doctor C. H. Joubert, Calcutta's only Gynecologist and Midwifery "professor" has come back to the land of "rupees," and as some Frenchmen say "of regrets"

The University of Paris has been endowed with sufficient funds to enable five of its professors to each take a trip around the world.

Prof Koch, the famous bacteriologist, is pursuing his study of malaria in the Milan hospitals and intends to spend several months in Italy.

It is stated by a writer of authority, that the insipidity of boiled water may be removed by passing it when cold through a filter, by which it is aerated.

Several cases of hydrophobia have occurred at Shanghai recently, and have given rise to an agitation for the muzzling of dogs.

The nurse who [illegible] plague [illegible] on the 22nd October, died of the disease. There has been no further spread of the pestilence.

H. H. the Nizam's Government have sanctioned the immediate construction of a complete and thoroughly equipped Pasteur Institute for Hyderabad.

Captain Smith, I.M.S., 11th Bengal Infantry, will officiate for Dr. Lingard as Imperial Bacteriologist.

The *Indian Planters' Gazette* says :—" Major F. S. Peck (late Doctor) returned from privilege leave on Monday night." Late *doctor* to be sure !

Dr W. J. Smyly, M.D., F.R.C.P., has been elected Vice-President of the Royal College of Physicians in Ireland.

It is rumoured that Dr. Arnold Caddy's brother will soon join him in practice in Calcutta.

Assistant Surgeon Amrit Singh, M B, has been appointed Superintendent of Civil Hospitals in the Nabha State.

Lieutenant-Colonel P. J Damania, I M S, Bombay, has applied to retire

Captain W. H. Orr, I. M. S., succeeds Major Wyville Thompson as Medical Officer, Lawrence Asylum, Sanawar.

Section of the cervical sympathetic is the latest mode of treating exophthalmic goitre.

Major O'Dwyer, I M. S, retires on the 30th November

Medical Practitioners throughout the Indian Empire, and members of the Local Medical Services are kindly requested to send Original Articles and Clinical Reports of cases for publication in the Indian Medical Record. This must be done if the local medical profession is to remove the reproach being cast upon it of apathy and neglect of its duty in literary matters.

Members of the Indian Medical Association whose subscriptions are in arrears are requested to forward their dues to the Treasurer without delay.

Please send all communications for the Indian Medical Record whether for the Editor, Proprietor or Manager, to 80, Park Street, Calcutta.

Defaulting subscribers to the *Record* are requested to send in their dues before the close of 1898.

Will all readers of *Record* kindly return the printed postcards sent them for the new Weekly Record.

JAMES SYME, LATE BOX.

JAMES SYME, whose name is one of the greatest on the roll of surgical fame, was born on November 7th, 1799, in Edinburgh, where his father had been a Writer to the Signet. He received his literary education at the High School of Edinburgh that "ungrateful nurse" of so many celebrated men. As a boy he was fond of dissecting animals, and of chemical experiments. At the age of eighteen he discovered a new solvent of caoutchouc obtained by the distillation of coal tar; by means of this he made a silk cloak waterproof, so that, in his own words, it "afforded complete protection from the heaviest rain and could be employed as a pitcher by turning up the skirt." He was fully aware of the commercial value of his discovery, for he characteristically adds: "My friends talked of a patent, but being then about to commence the study of a profession with which considerations of trade in those days did not seem consistent," he preferred to give it freely to the world ("Annals of Philosophy," March 5th, 1818). Not long afterwards the invention was patented by MACKINTOSH of Glasgow

SYME began the study of human anatomy under Dr. BARCLAY, and he made such progress that in his nineteenth year he was able to take charge of a dissecting room opened by his distant cousin, ROBERT LISTON. His professional studies were, however, somewhat irregular according to the standard of our day when the General Medical Council weighs heavily upon medical mankind. It does not appear that he ever attended a course of lectures on surgery. His training seems to have been almost entirely practical. Thus, in 1820, he was House Physician to the Fever Hospital, a post of honour and also of danger, in which many young men of high promise lost their lives. Afterwards he was resident clerk in the Royal Infirmary. In 1822 he became a Member of the Royal College of Surgeons of England, and visited the principal schools of France and Germany. In 1826 he became a Fellow of the Edinburgh College of Surgeons. At this time he was chiefly occupied in teaching anatomy; but surgery was not neglected, for on September 2nd, 1828, he amputated at the hip-joint, this being the first time that formidable operation was performed in Scotland. He entered into a partnership with Lonsdale, but this was speedily dissolved owing to incompatibility of temper. SYME then, in conjunction with Dr. M'Gillivray, set up a medical school in which he lectured on anatomy and surgery. He determined to devote himself entirely to surgery, in spite of the fact that his quarrel with LISTON closed the door of the Royal Infirmary against him. Nothing in SYME'S life shows better what manner of man he was than the way in which he set about overcoming an obstacle which to a man less strong and less confident in himself might well have appeared insuperable. His lectures had already gained for him some reputation as a teacher, and he had some private means: on the strength of this he established a private surgical hospital, and gave further hostages to fortune by taking unto himself a wife—and also a carriage. His bold strategy was justified by its success.

The report for the first year of his hospital, Minto House, which had accommodation for 24 in-patients, shows a total of 1,900 out-door cases, 265 in-door, and 95 operations. The reports of this hospital, published during the four years of his occupation, afford striking evidence of his surgical enterprise. Students came in crowds; and so great was SYME'S fame that when in 1833 an opening occurred in the Infirmary he could not be refused admittance On LISTON leaving Edinburgh for London in 1834, SYME remained in command of the field, and he kept it thirty-six years later—with one brief interruption—till his death.

The interruption referred to occurred in 1847, when the death of LISTON led to his being invited to succeed that great surgeon at University College Hospital, London. It is pleasant to think that some years before LISTON had expressed a hope that their "old sores might not be merely plastered over but be soundly cicatrised," and SYME had done his part in the healing process SYME'S career in London was short His first visit to the operating theatre which had been the scene of his predecessor's triumphs, in his own words, "strongly suggested the idea of a bear-pit in the Zoological Gardens" Yet the students, if a trifle disorderly, gave an enthusiastic welcome to their new teacher But he was never at home in London, and in a few months he found a pretext for resignation in the action of the authorities who wished to burden him with the distasteful duty of delivering systematic as well as clinical lectures. He shook the dust of Gower Street off his feet and returned to Edinburgh, where he was at once reinstated in the chair which he had vacated. Soon afterwards he was elected President of the Edinburgh Medico-Chirurgical Society. Other honours were showered upon him. The title-page of one his works, published in the early 'sixties, described him as "Surgeon in Ordinary to the Queen in Scotland; Professor of Clinical Surgery in the University of Edinburgh, Member of the General Medical Council for the University of Aberdeen and Edinburgh; Knight of the Danish Order of Dannebrog; Hon. Member of the Royal Belgian Academy of Medicine; Hon. Member of the Russian University of Cracow; Foreign Associate of the Surgical Society of Paris; Hon. Member of the Medical Society of Hamburg; Hon. Member of the Med-

cal Society of Stockholm; Hon. Member of the Medical Society of Bombay; Hon. Member of the Medical Society of Athens; Hon. Member of the Medical Institute of Egypt; Hon. Member of the Royal Medical Society of Edinburgh, etc." He was elected a Fellow of the Royal College of Surgeons of England under the new charter in 1843, an honor which corresponds with the "James I.'s creation," among baronets. The honorary degree of M.D. was conferred on him by the University of Dublin in 1867, and in 1869 by the University of Bonn. Oxford gave him an honorary D.C.L. in 1869.

SYME was still busily engaged in the practice and teaching of his profession and active in controversy when his years were threescore and ten. Then came a stroke of hemiplegia and though he recovered, other attacks followed. He died on June 26th, 1870.

Of SYME'S achievements in surgery, only the most cursory review can be given here. He was as has been said, the first surgeon in Scotland who amputated at the hip-joint; he was also the first in Great Britain who excised the superior maxillary bone. He was also the first who performed subcutaneous division of the sterno-mastoid muscle for wry-neck, and who successfully removed a tumour of the clavicle by disarticulating that bone from the sternum. His method of amputating at the ankle-joint is recognised as a great improvement in the surgery of the lower extremity; it may be mentioned that the second case in which he performed this operation was that of Professor GEORGE WILSON, whose account of his sensations on the occasion is a *locus classicus* in the literature of pre-anæsthetic surgery. Some of SYME'S greatest operative triumphs were won in dealing with aneurysms. In 1857 he treated a traumatic aneurysm of the carotid too low for proximal ligature by incision and ligature at the wound. In 1859 and 1860 he cut into two large maxillary aneurysms, and tied the artery in each case at the spot successfully. In 1861 he treated two cases of gluteal aneurysm, one by the old operation, the other by the Hunterian, both successfully. In 1862 he cut into an iliac aneurysm and tied the common internal and external iliac arteries. In 1897 he published the thirty fifth of a series of successful cases of ligature of the superficial femoral for popliteal aneurysm. He twice at least performed amputation at the shoulder joint successfully for aneurysm. He was a pioneer in the excision of joints; he did much to rescue diseases of the rectum from the hands of quacks; he was a successful lithotomist and improved the treatment of urethral stricture. To him also we owe some of the earliest researches on the formation of new bone from the periosteum. Of his surgical works, two at least may be read with the greatest profit at the present day. His "Principles of Surgery," which was first published in 1832, is one of the most remarkable books ever produced on the subject, and even from the purely literary point of view may be commended as a model of terseness and lucidity of style. It is characteristic of SYME that this book, instead of growing in bulk in successive editions, became smaller each time the author had the opportunity of pruning away what he considered to be redundancies. In 1847 he collected his miscellaneous writings in a volume entitled "Contributions to the Pathology and Practice of Surgery." In 1866 he delivered the address on surgery at the annual meeting of the British Medical Association, which was held that year at Leamington. One of his last contributions to surgical literature was a paper entitled "Illustrations of the Antiseptic Principle of Treatment in Surgery," which was published in the *British Medical Journal* (1869, vol. i.).

As a surgeon, SYME was the incarnation of the hardheadedness and canniness characteristic of his nation. He was not showy, but he was sure—alike in judgement and in execution. As an operator he never made any display, but he knew what he meant to do, and he did it quietly and effectively. He thought only of the patient, and, whatever the emergency, was never flurried. Of his extraordinary power as a clinical teacher the best proof is the fact that he left his mark on a whole generation of teachers. In addition to the principles and methods which he taught his pupils, he was in himself a constant lesson to them of scientific honesty and straightforward simplicity of character. No man was ever less of a charlatan. In his later years he was, perhaps, a little too suspicious of novelty, but he was always open to conviction, and he was one of the first to recognise the importance of the work of his distinguished son-in-law, Lord LISTER.

Though to strangers his manner was cold, this was due to shyness, and to the fact that, like the Iron Duke, with whom he had a good deal in common in the character of his mind, he had "no small talk." He was a man of genuine kindness of heart, and was most genial to those whom he knew well. His one "hobby" outside his professional work was a fondness for flowers; he was a successful as well as an enthusiastic horticulturist.

SYME was one of the first members of the General Medical Council, and he was a great advocate of medical reform. He was a man of strong opinions, which he was given to expressing in strong language, and was rather apt to see in difference of opinion a proof not only of intellectual deficiency but of moral depravity. He was ever a fighter, and battered his enemies with pamphlets which are now happily forgotten.

In person SYME was below the middle height, but of well-knit, active frame. His hands were small and not very powerful, but he could make them do what he wanted them to do. The best description of the real man is that given by Dr JOHN BROWN in "Rab and his Friends";—

"Everywhere, personally, professionally and publicly, reality is his aim and attainment. He is one of the men—they are all too few—who desire to be on the side of truth rather than to have truth on their side, and whose personal and private worth are always better understood than expressed. It has been happily said of him that he never wastes a word, a drop of ink, or a drop of blood, and his is the strongest, exactest, truest, immediatest, and safest intellect dedicated by its possessor to the surgical cure of mankind I have ever yet met with. He will, I firmly believe, leave an inheritance of good done and mischief destroyed, of truth in theory and practice established, and of error in the same exposed and ended, such as no one since JOHN HUNTER has been gifted to bequeath to his fellow-men. As an instrument for discovering truth I have never seen his perspicacity equalled. His mental eye is achromatic and admits into the judging mind a pure white light, and records an undisturbed, uncoloured image, undiminished and unrefracted in its passage, and he has the moral power, courage, and conscience to use and devote such an inestimable instrument aright."

VITAL STATISTICS OF CALCUTTA.

Abstract of Returns from Principal Towns in Calcutta during the week ending 15th October to the 5th November 1896.

Week ending	Cholera.	Deaths.				Small-pox.	Fevers.	Bowel complaints.	All other diseases.	Total.	Total Deaths from all causes since 1st January.	Annual Rate of Mortality per 1,000 of Population.
		Sporadic.		Epidemic.								
	Spo-radic.	Seizures.	Deaths.	Seizures.	Deaths.							
15th Oct. ...	2	...	...	...	...	...	114	45	186	350	5,81,560	26·7
22nd Oct. ...	3	...	...	...	...	...	105	69	207	377	...	28·8
29th Oct. ...	4	...	...	...	...	...	148	63	192	407	...	31·1
5th Nov. ...	...	...	...	...	...	...	125	51	191	367	...	28·0

Current Medical Literature.

MEDICINE.

Angina Pectoris: Its Diagnosis and Treatment.

HORATIO C. WOOD, thinks that if true angina pectoris be due to increased intraventricular pressure the arterial system and not the heart should play the chief role; digitalis *must* be death to the heart in angina-pectoris since it is opposed to aconite which can altogether do away with intraventricular pressure and nitrate of amyl which relieves the aorta and takes away the resistance of the heart. RENDU (*Phil. Monthly Cyclop of Practical Medicine*) insists on true angina pectoris being always associated with cardiac lesions which do not always yield appreciable physical signs of their existence while, autopsy alone discloses and lays down the following as most reliable for differential diagnosis.

TRUE ANGINA PECTORIS.	PSEUDO ANGINA PECTORIS.
(1) Is very rare before the age of 40.	(1) May occur at any age.
(2) The pain commences always in the heart.	(2) It is ascribed to the arm and radiates in several directions.
(3) The attacks are infrequent and patient likely to succumb in the second or third attack.	(3) Are common and *per-se* seldom fatal.
(4) It is generally induced by effort, emotion and disorders of digestion.	(4) By malaria, rheumatism, infectious disease &c.
(5) It occurs in the day time.	(5) Generally nocturnal.
(6) The sufferers are pale and can neither stir nor breathe.	(6) They are agitated, get up from bed and run to the window for fresh air.

TROCK (*La Rif. Medical*) noticed a peculiar musical heart-murmur resembling a feeble groan or the chirp of a chicken and J. H. MUSSER (*Amer. Jour. Med. Sci.*) who thinks the pain is chiefly due to increased intraventricular pressure, infers the presence of dilatation of the heart by the physical signs of displaced apex-beat, gallop-rhythm, a soft regurgitant in the tricuspid or mitral area, by venous phenomena and by the congestions, cyanosis and dropsy that attend angina pectoris.

Treatment differs considerably. J. B. BRADBURY, (*British Medical Journal*) recommends 1 gm. tablets of erythroltetra nitrate taken every 3 hours as a prophylactic; but [illegible] exhibition in alcoholic solution. W. W. [illegible] (*Medical Record*) found hypodermic injection of 1-75 grain of [illegible] gave prompt relief and BRUNTON (*Lancet, Vol.*) argues that angina depends on calcification of the coronary arteries suggests demineralization of these arteries by increasing the elimination of the lime by putting patient on a diet that is poor in lime and giving him lactic acid internally while MUSSER (*Amer. Jour. Med. Sci.*) finds that digitalis is of doubtful value and thinks that it should not be given in angina pectoris unless an excess of dilatation be present.—*Med. Rec.*

Non-Surgical Treatment of Boils, Carbuncles and Felons.

ADJURING the profession to bear well in mind the salient fact that though microbes can produce many diseases, there is a disturbance—not always easy to determine in nutrition before every illness, and microbes can only act where the health has deteriorated through various pathogenic processes. Dr. L. DUNCAN BULKLEY cautions against the too free use of the knife and poultice, both of which he has avoided for over ten years as boils, carbuncles and felons in the majority of instances are but suppurative external indications of deeper seated disease and patient persistent investigation helping to elicit the particular departure from health will generally afford the line upon which successful treatment will rest. The cause may be in overwork, worry, dissipation involving late hours and irregular feeding, or it may depend on assimilative and digestive difficulties, where iron is chiefly needed. Sulphide of calcium if perfectly good and fresh may be given with advantage and STARTIN's mixture (Ex. R Ferri Sulph. 3j, Mag. Sulph. 3vj., Acid Sulph Dil 3iv; Syrup Zinziberis 3iv; Aquæ ad 3iii. Sig. teaspoonful after meals) preceded by a good mercurial purge (R Pulv. Ipecac gra. ii. Massæ hydrargyri gra x; Ext. Colocynth Co gm. xiij. Div. in pil. no iv. Sig. 2 first night and remainder next night) will work wonders. With these measures and careful attention to diet and mode of life the tendency to suppurative processes may be quickly overcome.—*Gaillard's Med. Jour.*

Intermittent cold in Typhoid Fever.

As the continuous use of the ice-bag tends to congestion or sloughing of the skin A. J. DOWNES places the ice-bag for 90 minutes at a time over the ileum and begining of the colon and removes it for 30 minutes; but if the temperature rise to 103°F. and over the ice-bag is removed for only 30 minutes at a time. In either case the time during which the ice-bags are on and off amounts to 2 hours and sponging the body with ice-water and alcohol during the intermission forms an essential part of the treatment. So long as the temperature exceeds 102°F. two spongings daily should be given. J. MURRAY GIBBES (*Austral Medical Gazette*) attains alternate freezing and thawing by placing his patient on a tube mattress, and covering him with a second one. Cold water, a freezing mixture or water heated to various degrees of temperature is forced through the tubes so as to gradually bring the air surrounding the patient to the required temperature, just as it does in cold-storage-rooms. *Therap. Gazette.*

SURGERY.

Surgical treatment of Typhoid fever.

As the result of ulceration of lymphatic accumulations may be in the form of diarrhœa, future constitutional disturbances, suppurative, abscesses and even perforations of the extremely tender and inflamed typhoid bowel are well as result in exhaustion and death. Dietic statistics favor all active interference except the control of hæmorrhages or active diarrhœa; but though the regrets that there is no sign pathognomic of intestinal perforation which occurs in at least 2 per cent of typhoid patients and proves fatal in 82 per cent of such cases, FINNEY (*John Hopkins Hospital Bull.*) notes that the last 2 feet of the ileum is the most common seat of this lesion which is usually accompanied by a marked increase in the leucocytes found in the blood at the time, when the white corpuscles should have sunk to their lowest point; but he places most dependence, for diagnostic purpose, upon sudden acute pain in the abdomen accompanied by symptoms of collapse and an abrupt fall in temperature, and says that the best time for operative interference is immediately after the patient recovers from the shock attending perforation, when the ileum should be first overhauled and a suture taken over all suspicious looking patches, though there is no absolute necessity to prolong the operation by paring the edges of the perforation, while MONOD and VANVERT endorse these views and declare for surgical intervention immediately after perforation is suspected, JOHN B. DEAVER urges that to wait operative measures till full corroborative evidence of perforation obtained is culpably fatal, as septic peritonitis with an abdomen filled with pus is sure to follow and end in death.—*Rev. de Chir.*

Modification of the Technique of Vaginal Hysterectomy.

DR. DOYEN read a paper on this. He said that the had been obliged to remove the uterus by vaginal hysterectomy in cases in which the adnexa has been removed by laparotomy and now he performed total ablation. Three operations might be performed per vaginam (1) simple incision into the pus focus (2) unilateral ablation of the adnexa (3) total vaginal castration. In performing laparotomy, he used the Trendelenburg position In vaginal hysterectomy, he crushed the broad ligaments with special forceps, and left the forceps on for forty or fifty seconds. He closed the peritoneal cavity entirely.

Venesection.

KRONIG begins a study of this subject. He refers to the authorities who have recently advocated venesection in certain cases, and first discusses its use in acute pneumonia The effect of œdema of the lung, or a very massive exudation compressing the capillaries, is such as to cause an insufficient exchange of gases, thence a co-intoxication. With this is associated a mechanical difficulty. For a time the reserve force of the right ventricle can overcome these difficulties, but when exhaustion sets in there is dilatation, and then commences the danger to the patient. The blood is driven into the left auricle with difficulty, and the heart muscle is insufficiently nourished. The pressure in the pulmonary circulation increases, and that in the aorta diminishes. To overcome these dangers two expedients are had recourse to, namely, (1) to increase the power of the right ventricle by stimulants and cardiac tonics, and (2) if this does not succeed, to reduce the mass of the blood by venesection. Often venesection then produces a diminution of the cyanosis and of the dyspnœa, and the pulse gains in strength. The author believes that the best time for venesection is near the time of the crisis. It should be superadded [illegible] He refers to three apparently hopeless cases [illegible] section was followed by recovery. Again, in mediastinic affections of the heart and lungs the pulmonary circulation may become overloaded. Here venesection may give even better results than in acute pneumonia. Occasionally in heart disease sudden exhaustion may occur in a heart hitherto acting relatively well. Cyanosis, smallness of the pulse, intermitting respiration, may lead quickly to death. By a relapse section the right heart is relieved. The author refers to two such cases. The one occurred in a man, aged 53, who was seized with sudden and most severe dyspnœa. After a bleeding to 200 c.cm. the cyanosis rapidly disappeared. In the other case a girl, aged 16, with heart disease, was suddenly seized with great cyanosis. The radial pulse could not be felt, and there was Cheyne-Stokes breathing; 350 c.cm. of blood was withdrawn, camphor injections given, and artificial respiration practised. On the following morning there was no trace of the severe symptoms of the day before. There is a group of cases in which the cardiac tonics do not act satisfactorily. The author refers to one case in which the patient appeared almost moribund. Digitalis failed to relieve him until venesection had been performed, when it yielded the best results, and the patient lived for two years.—*Brit. Med. Jour.*

Scientific Treatment of Chronic Gonorrhœa.

VALENTINE has published an article upon "Chronic Gonorrhœa," of which the following is a summary:

1. There are no incurable cases of chronic urethritis.
2. All drugs suggested for the treatment of chronic gonorrhœa are soon relegated to merited oblivion.
3. The only efficacious method of treating chronic gonorrhœa is by dilations, as proposed by Oberlander, followed by irrigations, without a catheter, of the urethra or bladder or both.
4. Urethral fever or other disturbance does not supervene after urethral instrumentation followed by irrigation,
5. Carefully conducted dilations and irrigations are not painful.
6. Gradual, careful pressure by dilators is preferable to the use of sounds in the majority of cases.
7. The effect of dilations is to stimulate absorption of the infiltrations.
8. Functional disturbance and nervous symptoms are improved very early in the treatment.
9. Chronic urethritis can be exceptionally diagnosed and successfully treated, but never pronounced cured without the aid of the urethroscope.—*Med. News.*

Exophthalmic Goitre Treated by Resection of the Two Cervical Sympathetics.

GERARD-MARCHANT treated a patient with exophthalmic goiter by resection of the inferior portion of the right and left superior cervical ganglia with about two inches of the nerves, an improvement in the eye condition was noticeable almost immediately, and this increased until the exophthalmos was very slight indeed. The pulse decreased from 80 to 100 to a constant rate of 80.

In the same number of this Journal, CHAUFFARD mentions a similar case occuring in a man. Quenu performed a bilateral operation as above described. The immediate results were scarcely noticeable. Two and a half months later an attack of tachycardia came on, and the patient was given a bottle of digitalis with instructions regarding its use. He took nearly the whole contents of the bottle, and died, some hours later of acute digitalism. However, he lived long enough to demonstrate the failure of the operation.—*Med. News*

OBSTETRICS AND GYNÆCOLOGY.

Under the Obstetrical Society.

COMPLAINING that text books have too little to say of this condition which occurs in one of three forms :—(1) fœtid discharges without hæmorrhage (2) leucorrhœa with slight hæmorrhage and (3) those in which hæmorrhage is the main if not the only symptom, J. HALLIDAY CROOM M D, F.R.C.P., lays down the following points for differential diagnosis between malignant disease and post-climacteric hæmorrhage — In primary cancer the (1) uterus is sensitive, distinctly enlarged, early becomes fixed and heavy and (2) presents neoplasm and other irregularities, while (3) periodic and severe pain is an early and prominent symptom and (4) real floodings are very common ; but (5) fœtid discharges are unusual in the early stages because the os is closed and the surface of the cancer protected from external influences, hence (6) medicines fail and operation is imperative.

Whereas in senile uterine catarrh the (1) uterus is normal or only slightly enlarged, freely movable throughout and (2) presents no irregularities while (3) the pain is either irregular and colicky or slight and constant and (4) real floodings are less frequent and less severe , but (5) the fœtid discharge is an early and prominent symptom and (6) operation is very seldom needed as appropriate remedies cause rapid improvement in from 7 to 14 days.

While he insists that senile uterine catarrh is not prodromatic of cancer he finds it wrong to prophesy that a woman who has been free from uterine affections during her menstrual life will continue to remain so after her menopause when the organs usually atrophy. For treatment he advocates rest, hot douches and the administration of arsenic, strophanthus and chian turpentine, but thinks nothing more beneficial than the application of escharotics by dressed sounds or, better still, curettage of the hypertrophied, succulent and easily detachable mucous membrane, with subsequent packing and drainage.

Treatment of Ectopic Gestation.

Dr HAGGARD concludes a communication on " Ectopic Gestation" with the following recommendations —1 In unruptured ectopic gestation the vaginal operation, if congenial to the surgeon, may be elected 2 In non active cases of encysted hæmatocele vaginal section and drainage is the operation of choice 3 The situation of the mass low down, and the broad, roomy vaginæ of parous women are favourable to the lower route 4 Before evacuating ectopic collections *per vaginam* preparation for abdominal section should be made. 5 In free or uncontrollable hæmorrhage, after removing the products of ectopic gestation vaginally, the abdomen should be opened at once 6 When abdominal section is necessary after colpotomy the preliminary vaginal incision (*a*) will confirm the diagnosis , (*b*) facilitate the abdominal work by removing clots through the vagina instead of through the abdomen , and (*c*) establish an efficient avenue for drainage 7 The vaginal operation in appropriate cases is attended with less mortality.—*Amer. Gyn. and Obst. Jour.*

Pessary in the Uterus for Fifteen Years.

R. M. BOYES places on record the case of a woman, aged 76 years, who had long suffered from leucorrhœa. It was thought from her age and the fœtid nature of the discharge that cancer of the uterus existed. In the vagina a metallic stem was found passing into the cervical canal, and the patient recollected that fifteen years previously a pessary had been inserted for prolapse. It was found impossible to withdraw the pessary, as the distal portion of it was imbedded in the cervical tissues. A [illegible] incision was made in the anterior vaginal fornix the bladder was stripped off, and then the cervix was divided with scissors in the median line and the foreign body removed. There was purulent endometritis, and so douches were used and the vagina packed with iodoform gauze. There was complete recovery. The pessary must have been sucked into the uterus.—*Brit. Med. Jour.*

Pathology of Eclampsia.

A STUDY of 500 cases shows that hæmorrhage is the distinguishing feature of the changes found in the various organs, and that among the complications broncho-pneumonia and cerebral hæmorrhage are the principal causes of death Bacteriological investigation results negatively except in mixed infection. Chemical investigation of the blood and of the toxicity of the urine and serum is still in the preliminary stages, and the present knowledge of eclampsia does not justify sweeping conclusions in regard to its etiology. In 368 cases only 7 had sound kidneys , there was nephritis in 46 per cent , chronic inflammatory processes in 11.6 per cent. Changes in the liver, mostly hæmorrhagic, were noted in 218 cases. Hæmorrhage into the brain was noted in 28 4 per cent , intracranial hæmorrhage in 35.3 per cent. The stomach, intestines, spleen pancreas, suprarenals, and genitalia are also frequently found to have been the seat of hæmorrhage, and even the skin, mucous membrane, muscles, serous surfaces, and thyroid gland —*Monthly Cyclopædia.*

The Curette after Abortion and Delivery.

BUTTNER has observed 28 cases where the operator was GLAEVECKE He finds that the use of the curette is free from danger if carried out with proper precautions. It permanently stops hæmorrhage after abortion or delivery, and, as a rule, the catamenia return soon, and continue normally, contrary to what is so often seen in mismanaged cases. A skilful use of the curette likewise prevents those morbid changes which are the cause of sterility.—*Brit. Med. Jour.*

Functional Activity of the Mammary Glands of an Infant.

WAS noticed by Dr. J B GRAVES in a baby girl, who was born on 28th January 1898, but was just a week old when her unusually developed mammary glands began to secrete so abundantly that her mother is obliged to pump the milk out of both glands at least once daily and still this was done the babe was very fretful. This milk appears identical with mother's milk and the child is robust and as well conditioned as healthy babies are at her age.—*Med. Rec.*

Living Premature Infants.

IN proof of the premise that a strong premature infant can clear the pulmonary vesicles and live, VILLEMIN (*Ann. de Gyn. et de Obstet*) showed the Paris Obstetrical Society a fine mentally and physically developed child aged 31 months which weighed 956 grames (less than 2 lbs) at birth in the 5.5 or 6 months of gestation but was brought up by the *sonvenus* and careful feeding. CHARPENTIER also reared up an infant that weighed 27 ounces at birth when its respiration was purely bronchial.—*Brit. Med. Jour.*

[illegible] AND BACTERIOLOGY.

[illegible] *in* [illegible] *Malaria.*

[illegible] remarks [illegible] his own [illegible] investigations [illegible] him [illegible] Captain [illegible] of a white man [illegible] at Sierra Leone, [illegible] GEO. THIN [illegible] of the pernicious malaria of the West Coast of Africa is identical with the parasite [illegible] by MARCHIAFAVA and CELLI to the [illegible] of Italy and notes that hepatic elimination [illegible] ochre of the pigment of the [illegible] by the parasite which complete[illegible] the polycholia observed by [illegible] only [illegible] the circulation by leaving [illegible] performed by the endothelium of the vessels but also transporting the pigment into the perivascular lymphatic spaces leads to acute tumour and augmented function rendering recovery and repair impossible till all the pigment and parasitic deposit is cleared off by oxygenation within the white corpuscles.

Microscopic examination of the tissues above referred to showed:—Brain, surface covered with lymph with rarefaction of the fibres of the brain substance and the capillaries and cerebral vessels simply blocked with white corpuscles and the parasites in every stage of development from the spores to maturity. The *spleen* was almost diffluent, very dark and soft. Its connective tissue did not seem to be changed though the pulp was materially infected and a very large number of pigment bearing leucocytes accumulated around *but did not enter* the malphigian follicles which were apparently unchanged. The *liver* was much enlarged. With the exception of a small area surrounding the central vein of the lobule where they were vacuolated or in various phases of necrotic degeneration, the hepatic cells were healthy and well preserved; but there was an enormous quantity of pigment distributed between the rows of these cells, while the capillary vessels between the rows of liver cells contained many white corpuscles laden with pigment spheres and masses of various sizes, and the endothelial cells of the capillaries also contained pigment. The *kidneys* were slightly enlarged, congested and the epithelium of the convoluted tubules were in all the stages of necrosis, while the glomeruli were normal and a few very small pigment spheres and granules were contained in the endothelium of the capillaries, but there was no small-cell infiltration nor inflammatory changes in the connective tissue, and very few parasites were found in the blood vessels of the kidney.—*Medico-Chir. Trans.*

The Great Omentum.

ADAMI has carefully examined this structure in 150 consecutive autopsies. The considerable variations in size which it may show are often more apparent than real, unusually small sizes being often due to a ravelling of it, and unusually large sizes to a much distended stomach. Its vascularity is greater than the membrane itself requires, and thus it readily plays an important part in inflammations of the abdominal organs. It quickly and frequently forms adhesions and readily shifts its position, so that it can readily apply itself to an inflamed area, and, becoming adherent to it, thus limit and shut off inflammation or suppuration from the rest of the peritoneal cavity. It readily pours out lymph leucocytes upon its surface which most favour adhesions. This power is largely lost in very acute disturbances, such as typhoid fever, and in some exhausting diseases, when serous rather than fibrinous exudation [illegible]. He gives particulars of the position of the [illegible] with [illegible] out of [illegible] [illegible] paper, [illegible] distinct protective role. [illegible] death [illegible] inoculated [illegible] died, whereas similar [illegible] removal of the omentum did not [illegible]

Current Methods of [illegible]

1. SUCCESS in the examination of [illegible] experience.

2. The best stain for blood parasites, [illegible] is the double eosin and methylene blue.

3. For staining granules in white cells, EHRLICH'S triacid stain is to be employed.

4. The hematocrite is more convenient than the [illegible]tometer, and gives as good results; it deserves a separate place in the clinical examination of the blood.

5. The type of malarial fever endemic in New York and suburbs is nearly always the tertian. The quartan type and the crescent form occur at a great distance from the city.

6. The microscope enables us to distinguish between the various types of the blood diseases.—DR. H. HEIMAN, *in Post Graduate.*

Biology of the Tubercle Bacillus.

THE tubercle bacillus has long been known to secrete a cellulose capsule, which is a characteristic of aerobic microbes, whereas those which are anaerobic are distinguished by the formation of volatile gases, such as marsh gas, sulphuretted, hydrogen, phosphoretted hydrogen and ammonia. The author finds that tubercle bacilli grow readily on a new medium, consisting of crude lecithin rendered germ-free by repeated warming to 50.C. At first only traces of volatile gases are given off; but after five or six days, if the access of air is prevented, the presence of phosphoretted hydrogen can be demonstrated by the contained gases blackening paper impregnated with silver, but not lead. The author concludes that the tubercle bacillus is capably anaerobic, and can give rise to reduction as well oxidation products. The formation of phosphoretted hydrogen is much more marked in the case of the cholera bacillus, and it is suggested that the symptoms of cholera intoxication may be due to that gas. Similarly it is possible that this and other gases may be the causes of the symptoms of other bacterial infections. If this is the case, treatment should aim at neutralizing them as well as at increasing the resistance of the tissues to them. It is this new suggestion which the author considers may lead to most important results.—DR. MAASSMANN, *in Post-Graduate.*

Primary Pleural Carcinoma.

Is a rare affection an instance of which was found by BENDA in a patient who died of pyemia after operation for a broad pleural tumour which did not grow into the lung and had no metastases. Small cysts were here and there visible in the tumour which grew from the upper layers of the pleura, only though in some places the elastic tissue was [illegible] without the growth reaching the lung substance. The surface of this tumour, which in some respects resembled cutaneous, verical and ovarian carcinoma, was papillary and covered with cylindrical epithelium while the stoma was rich in vessels and no lumen was visible [illegible] cells which were arranged in alveoli and in rows. The glandular cell-rows could be followed [illegible] pleural epithelium and the cylindrical cells of the [illegible] gradually over into the flat pleural cells.—[illegible]

MEDICAL AND MEDICO-LEGAL TOPICS AND JURISPRUDENCE.

A Sanitary Barber-shop.

According to Bronson the conditions existing in barber-shops are responsible for the spread of many diseases, not merely of the skin, hair, and beard, but infectious maladies as well. He suggests the following rules for practical guidance of barbers and legislators, since he considers that a barber-shop is properly subject to public control. The barber himself should be free from epilepsy, spasms of any kind, drunkenness, and infectious diseases. Persons afflicted with contagious diseases of the skin, hair, beard, or genitals, should not be allowed in a public shop, but should be attended to at their homes, where they should have all their own instruments. In the shop all brushes and combs should be made of good material, so that they may withstand frequent disinfection. Puff-balls should be replaced by balls of absorbent cotton, which should be thrown away after they have been once used. Towels, etc., should be freshly laundered for each person, unless paper napkins are employed and used only once. Combs should be cleaned and disinfected with corrosive-sublimate solution after each use. Shears, razors, and clippers should be boiled or wiped thoroughly with alcohol after each use. A barber should never wipe the razor upon his hand. Brushes to dust away the cut hair from the neck should be forbidden. A barber should pay special attention to the cleanliness of his own hands and person, and should be instructed in the appearances of diseases of the skin, scalp, beard and genitals.—*Med. News.*

The early training of the Mentally Defective.

BERNARD considers the early training of the mentally defective of the utmost importance. The evidences of departure from the normal may be detected in infants at the beginning of life by a careful study of the unconscious and instinctive muscular actions, and the mode in which the various child-emotions are expressed; also by the process of growth—muscular, physical, and mental, and by carefully studying the powers of speech at the age of speech-development. BERNARD advises methods of corrective suggestion and appeals to imitativeness in order to gradually guide the pathologic toward the physiologic. This should be accomplished through the adoption of a well-ordered and comprehensive domestic treatment, begun with the earliest recognition of any pathologic condition. Early mental sanitation diminishes the frequency of occurrence of insanity. The creation of a "time-table" for infants is advised, including rules for guidance before dentition, during and immediately after dentition, and rules to apply up to the third and fourth years of life, at which stage the books for the mentally defective now in use can be applied.—*Phil. Med. Jour.*

Treatment of Poor Patients in Sanatoria.

NETTER and BEAULAVON urged the necessity of treating indigent sufferers from tuberculosis in sanitoria on the following grounds: (1) The sanitorium ensures the isolation of the patient, who otherwise constitutes a danger to society; (2) the sanatorium alone, owing to its special arrangements makes it possible to give the tuberculous patient the care which he needs; (3) the sanatorium, which is especially intended for the more curable cases, affords a means of realizing a substantial, financial and social gain, as has been shown by the results obtained by Assurance companies against invalidism and old age. Isolation hospitals and pavilions as at present established meet only one of the requirements of the case, namely, that which has reference to the danger to society caused by the tuberculous. They have the serious drawback that they necessitate a very heavy expenditure which would probably not be forthcoming for the creation of sanatoria, which would afford a satisfactory solution of the problem. Every effort should be made by the medical profession to send to sanatoria tuberculous cases at the beginning of the disease, when they offer the best chances of cure. With the view of securing this object, the question of providing for the support of the families of the patients during the stay of the breadwinners in sanatoria will have to be considered.—*Brit. Med. Jour.*

Milk: its Absorption vs. its Digestion.

MILK alone is sufficient to meet the needs of the body. Intravenous injection of fresh milk has been safely practised, showing that the economy can assimilate it without previous digestion and absorption. Working on this theory, the author has adopted the following plan for the rapid absorption of milk without previous curdling and digestion. A number of hours after a meal (usually three or four) the food disappears from the stomach, with all gastric juice, and the mucous surface becomes alkaline. This is the "alkaline tide" of the stomach. If at this time milk, free from fat, fresh and alkaline, and at the temperature of the body, be taken, it will excite no secretion of gastric or pancreatic juice on account of its freedom from all irritant qualities, and it will, therefore, pass at once in an unaltered state into the absorbents and system. This saves nature much work and avoids the disturbances of coagulation. It enters the blood-current more quickly, and in no way disturbs the appetite for regular meals, even increasing the latter. Milk can thus be taken by patients who cannot take it with their meals, BULKEY.—*Monthly Cyclopædia.*

Euthanasia.

SWAN-LIKE the wild Indian chants his own requiem and stoically meets the grim destroyer; while viewed from its most favourable aspects by civilized races death is intensified by abject fear, and depicted as a horrible ordeal accompanied by agonizing pain, wasting and hopeless struggling to resist the king of terrors; but as Dr. P. C. MAINE truly points out that no matter how intense the individual's previous suffering may have been, final dissolution in over 90 per cent. of human beings is utterly painless and is immediately preceded by a blissful unconsciousness, which may last for a few minutes or for several hours, while the mysterious force we call life slowly takes leave of its last citadel, the heart.

Many things legally right are morally wrong and *vice versa*, and instead of being mercifully and without their knowledge passed from suffering into rest by a fatal portion when all known palliative measures have failed, persons going through the mental and physical agonies of incurable affections and painful diseases and deformities which make life unbearable and themselves a heavy burden on their friends and relations, are condemned to either suffer on and on in vain, longing for relief in final dissolution which will not come *in rerum natura* or seek relief in suicide.

Excessive pain blunts, hardens and brutalises the spirit of man and if as clinical critics assert God sends pain to discipline and purify us, the discoverers and employers of ether, chloroform and other anæsthetics are guilty of blasphemous impiety. "Look" says Dr. MAINE "at the thousands of diseased, suffering, tortured human beings who crawl on and cumber this fair earth as the offspring of human ignorance, brutality, guilt and shame. Walk through the insane asylums. Go to the children's hospital and see the poor little innocents malformed, racked and tortured from no fault of their own. It is preposterous to think that God loves to behold the agonies of infants or to afflict them with terrible wasting diseases without the possibility of permanent restoration or even relief by speedy death." Brute creation recognises while reasoning man ignores that it is the acme of kindness and wisdom to put such sufferers to death; but to either kill such beings or let them kill themselves, equally infringes the law which has not yet reached that *just* stage of perfection that should ordain that when a committee of competent medical men have fully decided that an afflicted person is utterly beyond all hope of cure though he may linger on in agony for months and years it were wiser to quietly dispatch him than to cruelly prolong his suffering by deferring the death he hourly and daily prays for to terminate his pain.—*Med. Age.*

[illegible]

SCHWIM[illegible] sore [illegible] [illegible] the [illegible] secondary [illegible] years [illegible] treated. [illegible] the severity of [illegible] subsequent stages of the disease [illegible] should undergo the same medical [illegible] that the discovery of the organism [illegible] of gonorrhoea has led to no improvement [illegible] of these disorders, and considers [illegible] of a bacterial cause for syphilis [illegible] present empirical treatment.

[illegible] of treatment, with which the question [illegible] of marriage is bound up, SCHWIM[illegible] two cases in which, after prolonged treatment [illegible] freedom from [illegible], patients were allowed to marry, no infection of the [illegible] took place, and each had two healthy children. Nevertheless each developed eight years after infection further syphilitic mischief, in one case affecting the testicle, in the other the periosteum. He concludes that the most prolonged treatment (three years Fournier, five years [illegible]) cannot absolutely protect against relapses. As [illegible] treatment is very depressing both physically and morally, he considers two years enough, but does not recommend marriage till the end of the third or fourth year. —[illegible] Med. Jour.

Quicklime as a Source of Heat in Therapeutics

DR. K. MAJEWSKI, an Austrian army surgeon, suggests the idea of giving both the sick and the wounded the benefit of the heat developed when quicklime is slaked with water. This phenomenon, as is well known, results in the disengagement of as much as 160C. of heat, and over. The vessel employed by Dr. MAJEWSKI is made of tin, flat and rounded. It can be closed hermetically. This is half filled with broken quicklime of good quality, and water is slowly poured on to it until the total amount reaches 60 per cent. of the weight of the lime. When the process of hydration is finished, the emission of steam ceases, and the mass in the vessel is found to have doubled in volume, and to have become transformed into a homogeneous white powder. The apparatus is then [illegible] four hours later, it is still found to possess a higher temperature than the body. This circumstance may obviously be turned to practical use, more especially in times of war or epidemics. The lime which has already been utilised as a source of heat, may still serve as a disinfectant. —Gaillard's Med. Jour.

Opium in the Diarrhœa of Children.

F. W. CHAMBERLAIN offers the following as contra-indications for the use of opium in the diarrheal diseases of children:

1. In the early stages of an acute diarrhœa, before the intestinal canal is cleansed.

2. When the passages are infrequent and have a bad odor.

3. With a high temperature or cerebral symptoms.

4. When its use is followed by increase of temperature or by more offensive passages.

Per contra, opium is indicated: (1) When the passages are frequent and painful, or (2) [illegible]; (3) in dyspeptic diarrhœa, with castor-oil or [illegible]; (4) in late stages, when the passages are small [illegible]

[illegible] as soon as [illegible]

Many [illegible] opium [illegible] but to prevent [illegible] from the intestine. When indicated [illegible] sufficient to relieve pain and [illegible] prescribed separately, in order that [illegible] as often as necessary, the effect of one dose [illegible] ing before another is administered, [illegible] less that four hours.—Amer. Med.-Surg. Bull.

Purgative Pill.

DR. D. E. RUFF, of Junction City, Ore., [illegible] in the Medical Brief, the appended formula:—

℞	Podophyllin	...	... [illegible]
	Leptandrin	...	... [illegible]
	Ext. colocynth co.	...	... [illegible]
	Ext. hyoscyam.	...	... [illegible]
	Ol. menth. pip., gtt.	...	... [illegible]

M. ft. pil. no. ix.

Sig.: 1 for a laxative, 2 for a purgative, and 3 for a drastic effect.

Tonic Pills in Locomotor Ataxia.

For the tonic treatment prescribed after a course of mercurials the following formula is used by ERB:—

℞	Ferri lactatis	...	... gr. xl-gr. lxxx.
	Ext. cinchonæ	...	... ℈i-gr. lxxx.
	Ext. nucis vomicæ	...	... gr. v-gr. xv.
	Ext. gentianæ	...	... q. s.

M. Ft. pil. No. XL. Sig. One or two pills three times a day after meals.

Lutaud's Lotion for Pruritus Vulvæ.

The *Journal de medecine de Paris* gives the following formula:—

℞	Distilled water		...	500 parts;
	Chloral hydrate,	each	...	10 „
	Tincture of eucalyptus,			
	Cocaine hydrochloride		...	1 part.

Quinine and Jaborandi Hair-tonic.

Tr. jaborandi	...	...	℥j.
Tr. cantharidis	...	...	℥j.
Quin. sulph.	...	...	℈j.
Aq. coloniensis	...	...	℥j.
Ess. bouquet	...	...	℥iv.
Aq. ad	...	...	Oj.

Filter bright.

Eau de Quinine.

Bals. Peru	...	...	℥ij.
Glycerine	...	...	℥iv.
Tincture cinchona	...	...	℥iv.
Bay rum	...	...	℥viij.
Water	...	...	℥iv.

Macerate seven days with frequent shaking, and filter bright.

Hair Wash.

"SAID to be particularly good for weakness of the hair, and to prevent its falling out":—

Tincture of capsicum	...	[illegible]
Tincture of cantharides	...	[illegible]
Essence of white rose	...	[illegible]
Glycerin	...	[illegible]
Rectified spirit	...	[illegible]
Water to	...	[illegible]

Mix, add a little mag. carb. levis, shake, and after a few hours filter.

[illegible]

[illegible]

M.

Sig. [illegible]

[illegible]

THE ANGLO-INDIAN [illegible].

[illegible] THE DEAR OLD FLAG.

To the Editor, "Indian Medical Record."

Sir,—That stalwart and veteran champion of the Anglo-Indian cause—*The Bengal Times*, says:—"Remarks an [illegible] and very able contemporary—*Indian Medical Record*—It has been definitely settled that, delegates from all Anglo-Indian Associations will meet in conference at Allahabad, on 27th to 30th December next. Great political issues hang upon the results or this gathering [illegible]. If our representatives are true-hearted, fearless patriots, an opportunity is close at hand to make a very strong impression upon our Indian Government, that our Domiciled European Community will no longer brook such injustice as is being heaped upon its members in every branch of State service. Our cry must be the absolute EQUALITY of our Domiciled British and European Community, with imported Britishers. Let this be raised with no uncertain sound and every grievance, no matter how great or how small, will disappear the very instant the Government of India issues its edict that there shall henceforth be an equality of rights and privileges in India, both for the imported Britisher and his kith and kin in the land. This MUST be granted, and the time is coming when the Government dare not refuse it." This para., though sufficiently strong and pointed for all practical purposes, does not display that ornate emphasis and elastic suggestiveness we are apt to associate with our contemporary's able strictures. indeed, it falls far short of his standard; nevertheless, its meaning cannot very well be misunderstood. Whether or not Government *dare* refuse to recognise any such demand, it is most certain that, a cry of this nature, concentrated by a common impulse of indignation into a text for radical reform, and focussed into a remonstrance giving point and direction to emotions hitherto sighing in vain for practical expression and blended into one voice, though coming from all sections of India's domiciled communities, cannot fail of effect. But then, that cry must not suffer itself to be hushed in India. Its echoes must not be lost in the corridors of our Circumlocution Office nor brook that stifling, chilling response—"Declines to interfere," or one or other of those stereotypes with which we are all so familiar—"The Viceroy and Governor-General-in Council regrets he is unable to re-open this question," —or "I am directed to inform the memorialists that this matter was disposed of in Home Department A —100 dated 31st April, 2,000 B. C." This kind of shuffling will not do for earnest men bent upon a determined purpose. Elsewhere, we treat this subject at greater length.

[illegible] days have been few, and divided by wide intervals of time, in the history of Anglo-India, and—if we may be forgiven for employing a term, happily, [illegible] Eurasia. Deluded by false hopes, [illegible] without [illegible] and [illegible] they [illegible] them [illegible] like, they [illegible] them more [illegible] before, toiling on from year to year, in [illegible] anticipation of that better time to which we all look forward with such yearning desire, they have [illegible] their Queen and country, accepting their [illegible] like draught cattle, unresistingly, and uncomplainingly, awaiting in loyal faith the advent of that day, when their rulers, seeing the value of their work, and their [illegible] usefulness as departmental chiefs, at [illegible] more valuable and more eligible, will awake to a sense of decency and gratitude to reward their zeal and efficiency. Their endurance has been fruitless, their recompense, broken promises; their patience has been in vain. Hopes deferred, and deferred indefinitely, have caused their heart-sickness to develop a depression necessitating retirement from office with all possible celerity. Without leaders, without personal influence or Parliamentary interest they have perforce been silent when they have seen younger and less capable, imported men, put over their heads usurping praises and prizes which natural justice would demand as their own right, a right, truth and honesty and fair dealing have already repeatedly pronounced to be theirs indisputably, but which a Government that professes to be all things to all men, under pressure, thinks it may invade with impunity to serve party purposes and please friends in Council, here and at home. Few, indeed, have been our countrymen's red letter days in India and full, rather of a longing for unconsumated hopes, than of any solid delights of fruition. For this, there is a reckoning in store for some one and it should be exacted without subtraction of a jot, or a tittle. Anglo Indians and domiciled Europeans have become a drug in the labour market of India, and answering that inexorable law of supply and demand, they must bide their time, till some unforeseen political complication shall arise and their services be needed. At present, we have Baboodom at our own rates, which we can lower at will; what care we for Anglo-India, says a thrifty paternal and beneficent Government. It is only when hard knocks are being dealt out, and deadly [illegible] are brought into play; only when Baboodom [illegible] retires into seclusion—and very close seclusion, indeed, that we need feel concerned about soliciting back Anglo-Indians. We know, like the poet, they are always with us, and in their worst moods, a few kind and inspiriting words will easily arouse their enthusiasm, while Baboodom sucks its sustenance through a pen at its office desk with a punkah overhead and a somnolent coolie at the end of a string for diversion, and as an exercise of that commendable virtue, *patience*. Whilst Baboodom is discussing its *jalabees*, Anglo-India may be safely entrusted with field operations to risk and to lose their lives under a patriotic inspiration of duty. Verily, nature has her revenges, as well as her compensations. No ruler of India has understood the proper control of [illegible] passion or grasped that problem which deals with the right government of men, or how to divert [illegible] of disaffection arising from disappointed ambition, into resourceful streams of sympathy, of loyal [illegible], of devoted attachment. Whilst accomplished [illegible] have devoted energy to [illegible] purposes, and have pushed [illegible] their ultimate [illegible]

fire of disloyalty has been secretly smouldering and even now may burst into flame, unprecedented in its devastation. India is not in such a condition of security as we and her best friends could wish to see her. Let our loyal advocates and readers remember per words at Allahabad when they meet in Conference, and decline to be silenced by a fear of offending Government. Our readers will not object to candour, if it be legitimate, or to expressions of opinion, if they are discreet. Our exponents should do their duty fearlessly, yet temperately. They will have before them an opening that, if rightly followed up, may lead to an Annual Congress that ere long may prove itself a valuable auxiliary to our home Parliament. We have received an assurance that we are to be there, though subsequent enquiry has not elicited any further information. Whether we are there or not our duty is plain. We urge upon our friends to insist upon their rights, not as favours, not as concessions, or privileges, but as claims upon a Government that but for them would inevitably have collapsed in 1857-58. India was being wrested from British dominion when Anglo-India, in her non-combatant communities, stepped boldly forward, cast herself into the breach and helped our brave soldiers, shoulder to shoulder, to recover a possession that England felt was slowely yet surely slipping through her fingers and upon which her grasp had been most materially loosened. If we avail ourselves of what this Conference will indubitably offer us—an opportunity for amalgamating our forces, and of meeting annually for purposes of self-protection—a great and creditable work will be done and our labours will result in a well deserved triumph. Our representatives should bear all this fully in mind."

Let the Government of India and the India Office be careful how they make their next move.

Yours &c., ANGLO-INDIAN.

———:o:———

TRUE ANGLO-INDIAN LOYALTY. THE IMBECILE CRY OF THE *SATURDAY JOURNAL*.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SPURRED on to an eloquent defence of Anglo-Indian loyalty by the recent strictures of the *Record* on that Journal's imbecile remarks, *The Bengal Times* gives utterance to this noble and fearless exposition of the truest sentiments which actuate the Domiciled British Community of India in its action towards the Government :—The *Bengal Times* say :—

"Quoting from a weekly contemporary—*Saturday Journal*—of Calcutta, we note :—

"The plague has left Calcutta, and the unpleasant controversies that have arisen in connection with it may very well be dropped. There is, however, one indirect issue arising out of the wicked charge levied against the Government of manufacturing plague, that I would like to draw attention to. The statement weakened the hands of the authorities in dealing with the natives, large numbers of whom, already violently opposed to the plague regulations came to believe that the Government was acting merely from a capricious desire to annoy. Now, is it, or is it not the duty of every European in this country, or all who have white blood in their veins, to rally in times of danger to the support of the Government? A weekly medical paper, published in Calcutta and circulating among Anglo-Indians has the following comment on the notification declaring Calcutta no longer infected :—"No More Official Plague in Calcutta. The Government Declaration that the City is Free. Official Plague Hospital factory still to be kept open." One of the first duties of the Anglo-Indian and Eurasian community to the consideration of the Government, has been its steadfast loyalty to the Crown. I hope, then, that the leaders of that community in Calcutta and elsewhere, will come forward to publicly disassociate themselves from these persistent efforts to charge the Government with lying and fraud, and to play into the hands of the most seditious and disaffected sections of the native press."

"Heartily endorsing what our Saturday contemporary advances' that all plague controversy may now cease, we are unable to agree with him in his strictures, as respects Government and our domiciled Anglo-Indian community, in their relative positions ; that is, if he really intends to convey what his words seem to imply, which we apprehend he does *not*. It is his desire, doubtless, to deprecate further attempts to impale Government as having, under official authority, excited panic and an altogether unjustable stampede amongst several classes of natives ; and he advises that Europeans should cease to give currency to this charge ; but his words have been unhappily chosen, his inelegant, ungrammatical sentences incongruously grouped, so they may be read as giving a different meaning to his exhortation. No sensible person can, for one moment, doubt that, our Anglo-Indians have been badly treated ; that their merits have been overlooked ; that their just aspirations have been rebuffed by an irritating reiteration, disclaiming power to confer preferment, and by a doubtful allegation that, power as regards Indian patronage, has been monopolised by our Secretary of State for India, hence that natives of India—meaning natives of aboriginal descent, without European connection, are preferred to those of European blood ; nevertheless, we should never advise anything like desertion of our old flag, in order to promote sedition amongst natives. Our first claim as her Majesty's subjects, because of our loyalty—which goes without saying—is on her representatives out here ; not because we have been and are loyal, in any abstract sense, but because our permanent stay in India is in some measure, a deterrent to open resistance to constitutional display, and properly considered enforcement of authority. It is, and can never be otherwise than assumed that, we are one with our rulers in the cause of peace, good order, and just and efficient administration ; that whoever might hesitate, we at all events, could never be otherwise than true to our to national traditions, and that our chivalry, not to call it our patriotism, would revolt at seeing our sovereign defied through those to whom she has entrusted authority ; and its unnecessary to add, this would, in any case, be a natural feeling amongst us. It seems to be somewhat superfluous to counsel us how to comport ourselves in any emergency, no matter how originating. We can never forget who and what we are, and how our status has been won for us by our ancestors ; how we have inherited rights sanctified by the voluntary self-sacrifice of heroes and martyrs, or how it behoves us to maintain them in their integrity. Why should we seek to neutralise our

[illegible] it [illegible] that [illegible] [illegible] [illegible] Is it not for Govern-[illegible] to [illegible] have so willingly [illegible]. It was not to support any particular [illegible] policy our heroes left their bones whitening [illegible] tropical sun. No, Heaven forbid. It was to up-hold [illegible] glory, our prestige as Britons, our man-hood [illegible] worthy sons of immolated fathers, who have be-queathed to us a glorious heritage by a sacrifice of their lives. And this example we will follow, leaving an inheri-tance of honour to our children. We could not ally our-selves with our country's foes, in view to redress our wrongs—however grievous they may be. Look at poor, [illegible] Ireland, that cries loudly for justice, and resorts to private and dastardly assassination to gain her ends. Does not she present us with a deplorable and shameful picture of impotent, political fury madly directed, and brilliant talent, devoted to ignoble purposes? And shall we seek in dishonour, what is not quite within compass by manly and intelligent effort; what was won in honour and ratified in bloodshed? Shall we resort to despicable weapons because our rulers have broken faith with us? Nay, rather, let it be our boast that we have been cleanly right through, and have won our cause as patriots should win—with truth, with self-res-pect, and with justice, encouraging and supporting our endeavours, and with true manliness of principle inspi-ring our efforts, and supplying fresh incentives to further noble aims. Our weekly (weakly?) friend may mean exactly contrary to what he expresses, and a second reading of his slipshod utterances, suggests a possibi-lity that his intention is loyal. We trust it is, and that others may not, like ourself, be lead astray by his careless and inconsequential writing, to any possi-ble misapprehension of this motive. If he mean well, it is superfluous to enjoin a spirit of devotion that has never been wanting. There is not any need to express a hope that Anglo-Indians will do what they always have done, and that they will act under a sense of burning wrong as they always have acted—with patience and with submission to lawful authority, but with a full determination to right their wrongs by lawful means; with courage and loyalty, never compromising their own good name, by sullying a cause which must even-tually succeed; and whose success means happiness to thousands, aye, to millions yet unborn."

Yours, &c., ANGLO-INDIAN PATRIOT.

———:o:———

THE TYRANNY OF CONFIDENTIAL REPORTS AND THE HARM THEY DO.

To the Editor, "Indian Medical Record."

Sir,—May I crave your kind indulgence for publica-tion of a sad tale telling how a beneficial rule is subjected to abuse, and I would feel greatly obligated to you for advice as to the course I should adopt to gain redress.

I am a Civil Hospital Assistant of 22 year's standing with never a black mark against my name until Septem-ber 1[illegible], when, for reasons known to himself alone, the Civil Surgeon of the station to which I was attached [illegible] [illegible] the idea of my rising popularity and taking a violent dislike to me, not only refused to recom-mend [illegible] [illegible] [illegible] enjoyed, but also [illegible] looking [illegible] faults (?) in my [illegible] of the Civil and Police Hospitals.

Nothing [illegible] I was wigged for anything, no matter how trivial, that took place in the hospital during my absence on other duties, and the climax was reached when I was called upon to explain why the underpaid menial establishment would not [illegible] work better and why the hospital bill included certain items which I had received verbal instructions to obtain; but which order the Civil Surgeon now denies having given.

I have not a very good command of English and there being no one whom I could consult or get to dictate my explanation for me, I made a bare statements of facts and submitted my humble protest against being censured, for what was not my fault, through the Civil Surgeon whose endorsement or remarks I was not permitted to see.

As a subordinate I knew that my word would never carry any weight in official gaze against any statements made by a Commissioned Officer of the Indian Medical Service, and I fully expected my protest would be re-turned to me with the caution to "not let it occur again;" but I was not prepared to be suspended for writing a supposed-to-be insubordinate letter and to very shortly after be hunted off to Famine duty, without my travelling expenses being paid me.

It is evident that some confidential bad report must have preceded my arrival at my new station, where the Civil Surgeon received me in a manner that convinced me that he was far from pleased at my being transferred to his charge and on the close of the famine operations I was sent away for plague duty to Hurdwar, where I met the same disheartening reception as I had received at my last station.

While at Hurdwar, I was again suspended on the old charge and peremptorily transferred—presumably with a bad report, to my present station where I was later on in-formed that I was—without any attempt at trial or being given an opportunity to defend myself—sentenced to be reduced to the 2nd grade for six months and my re-instatement to 1st grade to be subject to the favourable report of the Civil Surgeon, but when the six months had expired that officer not only refused to recommend me for reinstatement and declined to state his reasons, but also suggested that I should be kept on the 2nd grade for a further six months.

The work becoming more heavy than a ruptured man could do with safety to himself, I asked to be placed be-fore an invaliding board, but the Civil Surgeon declined to examine me and refused to forward my application to the Inspector-General of Civil Hospitals whom I next addressed directly, but he returned my application with the remark. "No notice can be taken on a subordinate's petition when sent direct" and as I had no wish for my hernia to become larger and painful I was compelled to tender my resignation. More especially when it has become apparent that every attempt to right myself in the eyes of the Inspector General would be misinterpreted into insubordination.

The chief difficulty in my case is that while "bad reports" followed me [illegible] a thousand and one things were done to make my life unbearable, there was nothing

[illegible] when [illegible] either [illegible] subordinates [illegible] Civil Surgeon refused to [illegible] my complaint [illegible] Inspector General, who declines to notice anything that does not come through the office of the Civil Surgeon.

I am not the only one Sir, of my unfortunate class who has been made to suffer through misconstruction of the English used in his reports or explanations, and if you can help me in this matter you will also benefit a large class of men like myself.

Yours &c., DESPAIR.

(You should immediately recall your resignation and submit printed memorials through your civil surgeon to the Director General I. M. S. the Inspector General of your Circle and the Local Government. If the Civil Surgeon refuses to forward your memorial, lay your case before the Local Government direct and in the event of your not thereby obtaining redress, we feel sure the Indian Medical Association will do its best to help you.—Ed. I.M.R.)

———:o:———

AN INDEPENDENT MEDICAL COLLEGE IN BOMBAY.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The following letter speaks for itself. It was the direct outcome of a comment on it by the *Times of India*, of what appeared a bogus institution:

"Sir,—As I have been appointed by the Independent Medical College, Chicago, to be a member of their Representative Committee in Bombay, it is my duty to give an explanation to the leader which appeared in your yesterday's issue.

The authorities of the Independent Medical College have decided to have a Representative Committee here, in order that the business may be carried out in a legitimate manner.

Since some time back the rumour is circulating that the M. D. degree of that College can be obtained by anybody on payment of £20. To prevent such frauds some persons have suggested to the College authorities the necessity of having a committee who would select candidates for the examination and supervise it.

The following is an extract from a letter Dr. PATHARE, one of the graduates of that College, received from the Principal :—"We have decided to send to India two of our professors, Drs. Z. A. VAN NOPPEN and FRANK E. LYON, to investigate possible frauds and further abuse. Moreover, they will be there expressly for the purpose of establishing in India branches of our institution."

When the two Professors (who are expected in November next) will be here, the committee will be composed of the following persons, including myself :—Professor D. A. L. VAN NOPPEN, Ph.D., M.D.; Professor FRANK E. LYON, M.D.; Dr. D. KHOTE, B.A., L.M. & S.; and Dr. N. PATHARE, M.D.

Now our duty will be only as supervisors and not as examiners; of course the oral will be conducted by the two Professors. I enclose herewith a leaflet on which is printed the rules and terms under which candidates will be admitted, &c. I hope you will publish it in order that the public may see the conditions.

The rules, as you will see, will not give an easy opportunity, as is believed, to each and everybody to obtain that degree.

Let us now wait for the nature of the questions and the results before we can form an opinion of the value of that degree.

Yours, &c., LIONEL D'AVOINE.

BYCULLA, 3, RIPON ROAD, [illegible] October.

Here follows the *Times of India's* comment on the above letter :—

"Our invitation to the organizers of the examination to be held in Bombay under the Independent Medical College of Chicago has not been without result. A letter which appears in another column in explanation of the undertaking partially satisfies curiosity on the subject, but it leaves something unexplained. Thus, the gentleman who vouches for the *bona-fide* character of the examination, has done himself the injustice of leaving the public to suppose that he is a medical man. Yet Mr. LIONEL D'AVOINE is modest enough to lay claim to no medical title. He is, we understand, a gentleman who, having been born and brought up in Mauritius, has not yet had the opportunity of obtaining a degree. But he has gone through three or four years' useful toil in a Mauritius hospital, and is just so much of a medical man as that experience has made him. Doubtless when we have Dr. Z. A. VAN NOPPEN and Dr. FRANK E. LYON from Chicago sitting in an upper chamber in Mazagon, assisting two local medical men and the gentleman from Mauritius to supervise this examination, we shall have an imposing array of talent and professional prestige. All the same quite enough has been said here about the Independent Medical College of Chicago to enable medical students in Bombay to judge what its degrees are worth."

Now Mr. EDITOR, what is your opinion of this new movement?

Yours, &c., A BOMBAY L.M. & S.,

(We cannot admit that we have the smallest respect for irresponsible cliques of this stamp. On the very face of it, this movement in Bombay, bears the stamp of irresponsibility and deserves to be publicly condemned. It would never do to have an American diploma mill inaugurated in this country. We are positively certain that every respectable Medical College in America will disapprove of the tactics of this invertebrate corporation which offers to do business in medical examinations and diplomas through an agent, as its secretary, who himself is not a qualified medical man.—Ed., I.M.R.)

———:o:———

TOBACCO-ASH IN COBRA-BITES.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Referring to the queries raised by Mr. RAM DHARI SINHA L. T. M. S., on page 354 of your 16th October 1898 issue, I would call his attention to the fact that the tobacco-ash Mr. TRICUMLAL MAGANLAL C. M. S., alludes to on page 245 is not merely burned tobacco leaves, but the mineral residue obtained by the slow combustion, in presence of inspired azote, of a combination of tobacco leaves with *goor* (*i.e.*, unclarified country sugar) spices, lime, and certain odorous mixtures, whose composition is preserved as a trade secret.

I have not had the time nor opportunity to chemically examine *all* the various kinds of tobacco prepared for *hookah* smoking, but a large number of those that I have analysed, contained varying proportions of nicotine, picric acid, narcotin, opium, chundoo, ganja, calcium chloride, potash and sodium salts in combination with chlorine, phosphorus and sulphur and organic acids, and on five occasions I found estimable traces of stramonium, brucine, aconitin, and capsicin. Most of these are claimed as antidotes to cobra venom; but up to date there is no posi-

tive [illegible] of them—not even Calmette's Co. Ol. [illegible] or Fraser's antevenin—is infallible or even curative in a [illegible] per cent. proportion of the cases treated.

Many things that are physiological antidotes are not chemically so and vice versa, and fire frequently alters the physiological properties without changing the proportionate chemical constitution of the inorganic constituents of organic bodies; while a great deal depends on how the firing is effected. Thus burned or unburned, the mineral and alkaloid constituents of the tobacco leaf which makes a Burma cigar, remain the same; but in separate glasses of beer or potable spirits let us (*a*) steep a Burmah cigar for 2 hours, (*b*) throw in the ashes of a similar cigar that had been burned by smoking or (*c*) by incineration, and note the physiological effects of any one of the above solutions on a human subject —(1) will nauseate him and produce the symptoms Mr Ram Dhari Sinha quotes, (2) stupefies him and acts as a depressant narcotic but not as an emetic or diuretic and (3) first stimulates him to almost frenzy, then impairs the motor reflexes, after which it stupefies him and sinks him into a slumber from which it is harder to awaken him than from the sleep evoked by (*b*), unlike which nausea and purging, but neither emesis nor diuresis are among its after effects.

Why this should be I cannot tell, but I know that it is so, and it is quite possible that *hookah* tobacco may have beneficial though inexplicable reactions on cobraic acid, which unfortunately for the supposition of *similia similibus curantur*, exhibits symptoms antecedently opposed to those of narcotin or nicotine poisoning, though tarry nico-narcotine will kill a full-blown cobra which cobra-venom will not do.

Through a close and pretty extensive acquaintance with the ways and habits of the deadly Naja Tripudians I am rather sceptical of all the published cures, except immediate excision and red-hot iron application which have *never* failed when done in time. I would really like to see the tobacco ash cure of cobra-bite tested on a scientific basis, rejecting hypnotic evidences of a genuine bite.

Yours, &c., Physiological Alchemy

———.o.———

MILITARYISM AND DOCTORING.
A STUDY FROM LIFE

To the Editor, "Indian Medical Record"

Sir,—Will you kindly publish the following skit —

Scene I—The verandah of a British hospital in India, Time 7 A.M., Assistant Surgeon on the right of a line of ward servants (all dressed to kill).

(*Enter F. E.*).—Surgeon? No! I beg pardon *Major*!!!

Assistant Surgeon.—Saluting in approved fashion (which by the way he has not been drilled to) "squad shun!!!" (Forte) (deathlike rigidity of whole) *Major* walks down line and inspects.

Major.—"Make this man a prisoner" (a water-carrier) "he should not have a piece of soap in his hand at attention and one button of his coat is dirty, his turban is not tied properly, and the towel has left some flecks on his shoulder."

Assistant Surgeon.—"Tum vittu hai" takes over his belt and [illegible] him "Improperly dressed at morning visit."

Major.—"Dismiss." *Assistant Surgeon* [illegible] "dismiss."

Scene II,—Ward of a British hospital in India, Time 7 A.M.

Assistant Surgeon.—On entrance of Medical *Officer*. "Major so-and so! shun!!" (Fortissimo).

Major to 1st patient, looking down the line of bed-cots. "Your cot is not dressed in line my man, what do you mean by it"? (Forte).

1st P. "very sorry Sir, beg'y pardon Sir, but I've got a bad sor"—

M. (interrupting) "That will do, no excuses" (To Assistant Surgeon)

"Make him a prisoner" (To As: S) "You should see to this now; you are responsible, this ward is not ready for my *inspection* (inspection forsooth) I won't speak again about it."

1st P (*sotto voce*) "I'll as to ax the Potecarry to see my sore foot"

Major to 2nd Patient "what is the matter with you"?

2nd P "Pains in my stummick sor."

M "Oh! colic, show me" (patient shows stomach) "where's your cholera belt,? why have'nt you got it on, you're improperly dressed my man" (To A. S.) "make him a prisoner" (admonishes A. S again, and goes to 3rd P)

2nd P (despairingly) "Oh! lor! the pain" *A. S.* "Silence"!

M (T 3rd P.) "Why don't you stand properly to attention? Where are your boots? Got a bad leg and foot? Have you? No excuses sir! keep silence, see that you have your boots on next time, and stand to attention" "Mr X note this man's behaviour carefully"

M (To orderly of 4th P a bad case) why is not this man's boots in line? Where's his basin and his blacking brushes, been vomiting just now, has he, why did you not put the basin back in time for inspection? Kept the vomit did you, no business to, my inspection of the ward first. Mr. X change this orderly, he is no good, get a better man."

A. S "Yes Sir! this man sir (pointing to patient) seems to be developing Pneumonia, I heard a few dry crepitations on auscultation, and there is dulness over the right lung on percussion, will you examine him Sir?"

M. "Yes! where's the bhisty? Bhisty! (forte).

Tableau—no Bhisty!

M. (Furiously) "Mr. X where's the Bhisty?"

A. S. "You made a prisoner of him sir on coming to the ward and I will have to see the Senior Assistant Surgeon before I can replace him."

M. "Oh! no bhisty, I will report you sir" (goes off in a pet to report, returns furious, sees the other patients, finding military faults *ad nauseam*, leaves the ward.

Treatment?

Yours &c., Job.

[illegible] PLAGUE COMMISSION.

To the Editor, "Indian Medical Record."

Sir,—The following [illegible] in the *Times of India*:—

"We have just [illegible], in the estimation of the Secretary of State, the [illegible] body of the Indian Medical Service are [illegible] from taking part in the enquiry into plague in India. The same question has occurred [illegible] member of the service, who, writing [illegible] a day or two earlier, observed that it was nothing less than a public scandal that there should be no member of the Indian Medical Service on this Commission. "It is disgraceful to the Government of India," he added, "that a service which contains some of the best men in the world should be completely ignored in the investigation of a disease which has been epidemic in India for over two years. There are two men in the Indian Medical Service, among a vast number who are eminently fitted to conduct an enquiry into the causes of plague, who stand out pre-eminently. These are Colonel Bomford and Captain Childe, both, if I mistake not, M.D.'s of London University. If these two men are appointed on the Commission, it is bound to be a success, if not it will probably be a failure. Dr. Bomford is in England on leave, but he could very easily be brought out, and his leave extended after the Commission's session is over. Dr. Childe is, I believe, in Bombay. In advocating the appointment of these two true scientists and physicians, I am confident that I voice the feeling of the entire profession in India." We hope it is not too late to supply a very obvious and lamentable deficiency in the composition of the Commission."

Now Mr. Editor, it is very clear from the decision of the India Office of London, that it does not consider I. M. S. officers fit to serve on the Plague Commission, and very rightly so. The I. M. S. officer whose words of complaint are quoted by the *Times of India*, seems to imagine that practice in Bacteriology counts for nothing, while being a member of the I. M. S. signifies omniscience and "omni" fitness. The *Times of India's* correspondent names Dr. Bomford of Bengal who is a London M. D. and Dr. L. F. Childe of Bombay, who is B.A. of the Cape of Good Hope (1878) M.B. London (1885) and M. R. C. S., England (1885), *not* M.D. London, as deserving nominees for the plague commission. Now Sir, both these men may be good physicians, but men who spend their leisure hours in private practice (and their time seems all "leisure" as "professors") and who are not constantly at their microscopes, may be styled "itinerants" at Bacteriology, and it would be a farce to put such men on a scientific commission.

To all who have at heart the best and highest interest of India and of the progress of scientific medicine in this land, this policy of keeping out I.M.S. men from scientific posts for which the majority of them, (from the self-condemning fact of their daily duties being those of "civil" general practitioners), are totally unfitted, is the most hopeful feature for the approaching reform of medical matters in India.

Yours &c., A General Practitioner and M.B. London.

Bombay, *November 1898*.

BOGUS "PRO[illegible]"

To the Editor, "Indian Medical Record."

Sir,—The Medical Profession [illegible] the British Empire, owes [illegible] tude for its bold, fearless and [illegible] recently gazetted medical and [illegible] the Calcutta Medical College. The Bombay and Madras Colleges need showing up in the same way. If Medicine, Surgery, Obstetrics, Sanitation and the other allied sciences are to stand ably and suitably represented in our Indian Colleges, a system of competition must now be opened and honestly followed. Medical Education in India cannot be sacrificed to "Service" interests, especially when "Service" men will not "brush up" for their high privileges, expecting that the holy or unholy traditions of their service will suffice to give them prestige and even answer the purpose of a bogus "apostolic succession" of inherited or "spiritually" acquired professional fitness for academic promotion.

I hereby challenge the Government of India and the India Office of London to throw open the Professorships of the Medical Colleges of India and their Hospital appointments to competition in the open field of the medical profession both here and in Great Britain. If it does, it will find no dearth of excellent candidates. Close the doors of the I. M. S. to these posts and far better men, and what is more, "fit" men will be found in large numbers.

Yours &c., F.R.C.S., Eng.

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QUININE AND ABORTIONS.

I.

To the Editor, "Indian Medical Record."

Sir,—I read in your journal dated October 1st under the heading of 'Abortion due to quinine' that a lady in her 3rd month of pregnancy aborted after the 4th dose (2 gr.) of quinine administered by Assistant Surgeon Mr. Balagopel l.m.s., Chhetaripoor, Burdelkhand.

Please allow me to say that when I was first posted to this notoriously malarious place, I refrained from giving quinine to pregnant women suffering from ague and remittent fever, being afraid of its supposed abortifacient effects.

As the fever did not yield to other remedies the long continued suffering of the patients induced me to resort to quinine in mild doses and to closely observe its effects. At first I began to give 2 grs. 3 times a day and as no untoward symptoms appeared even after 4 or 5 days administration I was tempted to increase the dose, more than 100 cases have been treated within the last 2 years and not a single abortion has occurred. When some patients complained to me of pain in the loins and in the uterine region, in the course of quinine treatment, I used to give a little opium mixed with quinine. No doubt, medical men should carefully enquire, before giving quinine, whether the patient had ever taken it before while carrying, and if so whether any bad effects had taken place and whether she is subject to a tendency to abort, also particular attention [illegible] be paid to the state of the bowels.

Yours &c., [illegible] Rao, l.m.s.

II.

To the Editor, "Indian Medical Record."

Sir,—In your issue of 1st October, I see a note from Assistant Surgeon Bhagpal in which he describes a case of abortion after quinine in 2 grain doses. Again I see in Lyons' "Medicine and art of midwifery," page 265, the recommendation quinine in *large doses* for malarial fever in pregnancy. Recently two cases have come under my observation in which both women aborted after five and eight days, respectively, of Remittent fever. Neither of them had taken any quinine as they were both native women and objected to taking quinine.

Is it not probable that the abortion was due to some other cause?

It is hard to see how eight grains of quinine, given in two grain doses at intervals of 6 hours could produce such effect. I have always been accustomed to give quinine in moderate doses to pregnant women, and so far I have not seen any serious results. However I have not tried it in this country. Probably the tropical climate has something to do with it. I would like to hear from others on the question.

Yours &c., W. W. Ashe M.D.

(We do not believe that quinine produces abortion. It certainly help uterine contractions when once they have started.—Ed., I.M.R.)

:o:

TREATMENT OF PLAGUE CASES.

To the Editor, "Indian Medical Record."

Sir,—Patients suffering from plague generally do well, if kept in open houses with free ventilation, which shows that pure air, containing a fair amount of oxygen, is beneficial for them. I beg therefore to request those having plague cases under their care to give the following plan of treatment a fair trial.

1. Oxygen gas to be inhaled at short intervals.

2. Internal use of oxygenated water, permanganate of potash, chlorate of potash etc., in small doses frequently repeated.

3. The buboes to be injected with permanganate of potash and antiseptic applications to be applied 3 or 4 times a day, (camphor 25 parts, crystallised carbolic acid 9 parts and alcohol 1 part.) This to be diluted with olive oil for local application.

Yours &c., M. C. Mukerji, L.M.S.

Book Reviews & Medical Trade Notices

ESSENTIALS OF MODERN TREATMENT OF DISEASE (PART I).

By K. M. Nadkarni, F.S.S.L. and A. (London).

Associate Editor, Indian Medico-Chirurgical Review, &c., &c.

(Publishers: B. K. Rao, and Co., Madras; Bailliere, Tindall and Cox, London. Pages 212).

As stated in the preface, work on Therapeutics has practitioner in possession with a pocket compendium containing the symptoms of the various, methods of treatment and cure [illegible] specialised by various eminent authorities. The alphabetical arrangement facilitates reference to each disease will be found succinctly described. It is evident that the current literature of the subject scattered through various medical works and journals has been carefully collated in the little hand-book under notice. We shall look forward with pleasure to the appearance of Part II.

CLEFT PALATE; TREATMENT OF SIMPLE FRACTURES BY OPERATION; DISEASES OF JOINTS; ANTRECTOMY; HERNIA, &c., &c.

By W. Arbuthnot Lane, M.S.

(Publishers: The Medical Publishing Co., Ld., London. Pages 278. Price 5s.)

This work comprises a series of eleven Clinical Lectures which are certain to prove of no little use to the profession. Some skiagrams and photographic reproductions have been added to illustrate the text. The unique get up of the volume, in its white canvas binding &c., is quite a model of neatness.

HERNIA: PALLIATIVE AND RADICAL TREATMENT IN ADULTS, CHILDREN AND INFANTS.

By T. A. Manley, M.A., M.D.,

Surgeon to Harlem Hospital, U. S. A., &c., &c.

(Publishers: The Medical Press Co., Limited, Philadelphia, Pages 231).

In view of the position now attained by the study and treatment of Hernia, Dr. Manley has succeeded not merely in ascribing to each therapeutic resource its due merit, but in clearly defining the limitations of each. The indiscriminate application of the truss in childhood is shown to be quite as harmful as too much operating in the case of adults, if not more so. In addition to the Index the value of the treatise is enhanced by a Table of operations for strangulated Hernia and a Bibliography of works on the subject.

STEARNS' KASAGRA IN GOUT.

As stated by Prof. H. A. Hare, of the Jefferson Medical College, in the gouty individual the liquids of the body may be said to be so over-laden with salts that they deposit them wherever a spot is found which is easy of access, just as water laden with lime form a deposit on the side of its bed when a drought comes on, and dissolves and removes these formations when a freshet takes place. For this reason he recommends pure water as a therapeutic agent to be used in large amounts and drugs which eliminate these salts, such as colchicum, etc. If the bowels are kept in active condition by Kasagra in such cases the elimination of the poisons which cause gout will be accelerated. The same authority recommends arsenic in subacute or chronic gout and when anæmia is present arsenic is particularly indicated; also cod liver oil, and syrup of the iodide of iron. Stearns' Kasagra is an excellent vehicle for the administration of Fowler's Solution.

[illegible] GERMAN PREPARATIONS.

Fabrikant [illegible] Vorm: Friedr. Bayer & Co., [illegible], Germany.

We have before had occasion to notice the excellent preparations of this house. The intestinal astringent known as Tannigen has been employed with conspicuous success in cholera and various other forms of Diarrhoea. Aristol, which is used along with Picric Acid most efficaciously in treating burns and scalds, is a fine red powder composed of Iodine, Iodide of Potash and Thymol. Its superiority to Iodoform lies in its being without the latter's irritating character and odour. The use of the Picric Acid not only lessens the pain of the burn but its strong antiseptic properties limit the tendency to suppuration and induce rapid healing. Trional is a hypnotic drug as prompt as it is efficacious; as a sedative its action is highly satisfactory, inasmuch as refreshing rest is afforded to patients afflicted with insomnia without evil effects of any kind following its use.

Government Medical Gazettes.

GOVERNMENT OF INDIA.

The services of Asst. Surgn. J. T. Weston are replaced at the disposal of the Govt. of the Punjab.

The services of Asst. Surgn. John Robertson (Bengal) are placed at the disposal of the Chief Commr. C. P.

Asst. Surgn. and Hony. Lieut. Caesar Augustus Hellein to be Senior Asst. Surgn. with hony. rank of Captain.

Asst. Surgn. and Hony. Capt. Samuel Charles White is absorbed in the rank of Senior Asst. Surgn. with rank of Lieut.

Asst. Surgn. Joseph Wilcox Williamson to be first-class Asst. Surgn.

Third-class Asst. Surgn. John O'Leary to be second-class Asst. Surgn. from 25th June 1898.

Hosp. Asst. Mahboob Alam was apptd. a 3rd class Hosp. Asst. for Govt. service and placed on the Native States Reserve List, hosp. assts. from 8th May 1898.

Medical pupils Sham Narain and Bishen Lal Dube were apptd. 3rd class from 1st. May 1898.

Hosp. Asst. Raghunath, Oodeypore Jail Hosp. died 22nd April, 1898.

Hosp. Asst. Ashgarali Khan, Tonk Dispy. privilege leave for three months from 21st July 1898.

Hosp. Asst. Harnarain, Abu Charitable Dispy. privilege leave for one month, from 8th Aug. 1898.

Hosp. Asst. Chanda Singh, Residency Hosp. Oodeypore, privilege leave for three months from 4th Aug. 1898.

Hosp. Asst. Nund Kishore, Palace Dispy. Bikanir, permitted to resign the service of Govt. from 18th Aug. 1898.

Hosp. Asst. Shib Ditta, City Hosp. Kotah, was promoted to 1st class from 15th April, 1898.

Hosp. Asst. Ram Pershad Banerji, Northern India Salt Revenue Dispy. at, Bhatki, was promoted to the second class from 24th Dec. 1897.

Hosp. Asst. Sheikh Fazulul Husain, Saran Dispy. Meywar, to second class from 15th April.

Hosp. Asst. Maji Ram, Noher Dispy. Bikanir, is entitled to draw the usual allowance for English Qual. from 15th April.

BENGAL GOVERNMENT.

Lieut. Col. R. Cobb, M.D., I.M.S., has been granted an extension of furlough for three months.

Capt. K. B. Barnett R.A.M.C., to have medical charge of Dinapur from 26th Sept. 1898.

Col. J. Lewtas, M.D., I.M.S., Civil Surgn. of Darjeeling, leave for ninety days, from 1st Dec. 1898.

Capt. C. R. Stevens M.D., L.M.S., Resident Medical Officer, Med. Coll. Hosp. Calcutta, to act as Civil Surgn. of Darjeeling.

Asst. Surgn. Kali Mohun Sen, doing duty Pres. Gen. Hosp. apptd. as Resident Med. Officer, Police Hosp. Calcutta, to do duty at the Pres. Gen. Hosp.

Asst. Surgn. Benode Behary Ghosal is allowed leave for three months.

Asst. Surgn. Jognewar Mukerjee held med. charge Tangail subdiv, from 30th Sept. to 6th Oct. 1898.

PUNJAB GOVERNMENT.

Hosp. Asst. Abdulla Khan, Kalla Dispy. Jhelum Dist. having passed the English Qual. is entitled to the highest rate of pay from 18th Sept. 1898.

Hosp. Asst. Lal Chand to Karianwala, Gujrat Dist, 20th Sept. 1898.

Hosp. Asst. Alam Shah, Miran Shah Dispy. Tochi Valley, three months privilege leave.

Hosp. Asst. Ganda Ram, Jalalpur Dispy. Gujrat Dist. 90 days' privilege leave, 22nd Sept. 1898.

Hosp. Asst. Kamal-ud-din, doing genl. duty at Jullundar, to sub. med. charge, Civil and Police Hosps., 25th Aug 1898.

Asst. Surgn. Diwan Ali, resumed charge Pindigheb Dispy. Rawalpindi Dist., 20th Sept. 1898.

Hosp. Asst. Goverdhan Das, Rawalpindi Civil Hosp., 23rd Sept 1898.

Asst. Surgns Lalas Chaman Lal, Ram Chand, Munshi Arghar Ali and Thakur Kidar Nath were apptd to do genl. duty Mayo Hosp, Lahore.

Hosp. Asst. Ghulam Nabi, Civil Hosp. Hoshiarpur to Hariana Dispy. 10th Oct. 1898.

Hosp. Asst. Karm Chand, from Garhshankar Dispy. 23rd Oct. 1898.

Hosp. Asst. Gopal Das to do genl. duty Egerton Hosp Peshawar, from 26th Oct. 1898.

Hosp. Asst. Basheshar Das, Dabwali Dispary. Hissar Dist assumed charge Rania Dispy. in that dist. 14th Oct. 1898.

Asst. Saiful Rahman reported himself to the Civil Surgn Jullundur, for genl. duty Civil Hosp. 16th Oct. 1898.

Hosp. Asst. Saiful Rahman, to Ruaka Kalal Dispy. 17th Oct. 1898.

Hosp. Asst. Abdul Rashid, Plague Inspection Post, Beas Amritsar Dist. having passed the English qual. exam. is entitled to the higher rate of the pay of his grade from 1st Nov. 1898.

Hosp. Asst. Maha Narain, doing genl duty Civil Hosp Hoshiarpur, privilege leave for 11 days, from 18th to 28th Oct. 1898.

Hosp. Asst. Harbans Singh, Civil Hosp. Ferozepore, having passed the English qual. exam. entitled to the higher rate of the pay of his grade from 26th Oct. 1898.

Hosp. Asst. Sahadat Ali, Sayadwala Disp. Montgomery Dist. three month's privilege leave, from 18th Oct. 1898.

CENTRAL PROVINCES GOVERNMENT.

Hosp. Asst. Surji Rao, doing duty under Officer in Civil medl. charge, Damoh, to Central Jail Hosp., Raipur.

Hosp. Asst. Suraj Parshad [illegible], Central Jail Hosp., Raipur, three months privilege leave.

Hosp. Asst. Bhandu Lal doing duty under Civil Surgn. of Nagpur, to Mul Bazaar Dispy., Chanda Dist.

Hosp. Asst. Abdul Razak, Khan, to do duty under Civil Surgn. at Nagpur.

Hosp. Asst. Girma Zingu, Hende Bazaar Dispy. Nagpur, to Civil Station Dispy. Nagpur.

Asst. Saiyid Abdul Aziz, Civil Station Dispy. Nagpur, three months' privilege leave.

Hosp. Asst. Pandurang Lakshman, to do duty under Officer in Civil med. charge. Bhandara.

Hosp. Asst. Ramkrishna Appaji, Murwara Branch Dispy. Jubbulpore Dist. three months' privilege leave.

Hosp. Asst. Beni Parshad, to Murwara Branch Dispy.

Hosp. Asst. Ramkrishna Paikaji, to do plague inspection duty at Itarsi.

N.-W. P. AND OUDH GOVERNMENT.

Asst. Surgn. Balbhadar Singh, on Reserve duty, Agra, to Plague duty, Muttra, from 14th Oct. 1898.

Asst. Surgn. Baij Nath Vias, on reserve duty, Agra, to Plague duty from 13th Oct. 1898.

Asst Surgn. Rup Kishore Tandan, M B., and C M, Husainabad Dispy Lucknow, to Plague duty from 15th Oct 1898.

Hosp. Asst. Sri Ram, on Reserve duty at Etawah, to Husainabad Dispy Lucknow

Asst. Surgn. Dalip Singh Katwal, Sadar Dispy Etah, to be Travelling Med. Inspr of Plague, Allahabad Circle

Hosp Asst Abdul Hakim Branch Dispy Jalesar to Sadar Dispy. Etah

Asst. Surgn Hari Ram Verma, Impl Estab. Haldwani Dispy. Naini Tal to Plague duty from 15th Oct. 1898

Hosp. Asst. Rama Nand, Reserve duty Shahjahanpur, to Sadar Dispy. Bara Banki.

BURMA GOVERNMENT.

Hosp. Asst. Maung Tun U assumed charge Civil Hosp Pakokku, 12th Sept 1898

Hosp. Asst. Maung Aung Pru, three months' privilege leave, 12th Sept. 1898.

Hosp. Asst. Jeet Singh, assumed charge Civil Hosp., Mainmu Sagaing dist., 14th Sept. 1898.

Capt. F. J. Dewes, I M S, made over, and Major E. P. Frenchman, I.M.S, assumed charge Civil Surgncy. Bassein dist 15th Oct. 1898.

Mr. J. A. Maddox, and made over, and Asst. Surgn Maug Thin assumed, charge Civil Surgn Kyaukpyu dist. 17th Oct. 1898.

Capt. T. W. Stewart, I M S, assumed charge Civil Surgn Akyab dist. 12th Oct. 1898.

Hosp. Asst. B. B L Agnihotry assumed charge additional duties Jail Hosp. Henzada, 17rh Oct. 1898.

Hosp. Asst. T. S. Melchesedech, transferred to Mandalay, 17th Oct. 1898.

Hosp. Asst. Josiah Maselamony relinquished charge additional duties Dispy. Zigon, Tharrawaddy dist. 14th Oct, 1898.

Hosp. Asst. Moung Po Myin assumed charge Mil. Police Hosp. Kindat, Upper Chindwin dist 14th Oct. 1898.

Hosp. Asst. S. J. Govindasawmy Pillay assumed charge Police Hosp. Haka, Chin Hills, 25th Sept. 1898.

Hosp. Asst. Shaik Abdool Aziz relinquished charge additional duties Civil Hosp, Falam, Chin Hills, 12th Sept. 1898.

Hosp Asst. Jagi Chand assumed charge Police Hosp. Falam, Chin Hills, 20th Sept. 1898.

Hosp Asst. I. J. Govindasawmy Pillay assumed charge additional duties Civil Hosp. Haka, Chin Hills, 25th Sept. 1898.

ASSAM GOVERNMENT.

Leave for three months, is granted to Hosp. Asst. Sasi Kanta Sen.

Hosp Asst. Gunabhi Ram Das was employed as a Supery. for duty under Civil Med. Officer. Nowgong. from 21st to 27th Sept. 1898.

Hosp. Asst. Sreedhar Barua, Lungleh Military Police Hosp. to Lungleh subdiv. from 1st Oct. 1898.

Hosp. Asst. Jamini Kumar Ghosal, is a Supery. for duty under the Civil Surgn. Sibsagar, from 7th Oct. 1898.

Hosp Asst. Rajani Kanta Mallik, Supery. for duty under Civil Surgn. from 11th Oct. 1898.

Hosp Asst. Ananda Kumar Bhattacharyya, has passed the English Qual. Exam. 15th Oct. 1898.

Hosp. Asst. Abdul Aziz, a Supery Darrang dist to Naga Hills dist. from 16th Oct. 1898.

Hosp. Asst Jay Chandra Sukla, Henema Mil. Police out post Naga Hills dist. to the Wokha Dispy. 16th Oct. 1898.

Hosp Asst Abdul Gofur, a Supery. Nowgong dist, Pathari Dispy. from 15th Oct. 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Rs 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTHS.

HOWELL.—On the 8th October, at Upper Colaba, Bombay, the wife of Captain H. A. L Howell, R.A.M.C., of a son.

CONDON.—On the 1st November, 1898, at Rock View, Chakrata, the wife of Captain E. H. Condon, R. A.M. C., of a daughter

MARRIAGE.

MACPHAIL—WELLS—On the 14th October, 1898, at Pollokshields Free Church, Glasgow, by the Rev. W. M Macphail, M A., Streatham, London, brother of the bridegroom, assisted by the Rev J. Hood Wilson, D.D., and the Rev. J. M Sloan, M A, Edinburgh, Janet Russel Wells L.R.C.P. and S., eldest daughter of Rev. James Wells, D.D., Pollokshields, to the Rev. James M. Macphail, M.A., M.D., Free Church Mission, Chakai, Bengal.

DEATH.

BING.—On the 16th October, 1898, at Rawalpindi, from the effects of illness contracted on service in the Tirah Campaign, Lieutenant-Colonel James Bing, Royal Army Medical Corps. (Deeply regretted by all who knew him).

[illegible] TO CORRESPONDENTS.

[illegible] (R. [illegible])—[illegible] is too [illegible] your [illegible] vindicated [illegible] concerned [illegible] the [illegible].

[illegible]—[illegible] but does not give his name, [illegible] the papers be returned after [illegible]. Will he be good enough to once again state his grievance and give his name and address.

Assistant Surgeon ([illegible] C. P.)—We have written to the D. G. about your case.

[illegible]—We note the fatal case of abdominal section for chronic bowel trouble in a European lady. We note also the hours of attendance of the resident and visiting officers.

S. A. (Bangalore).—Many thanks.

Grieved Hospital Assistant.—Too late for this issue.

M. (Eden Hospital).—It is something new to learn that acute pelvic peritonitis is to be treated by rubbing anodyne liniment into the painful part. We note the outdoor dispensary ticket No. 8256 of 4th October.

P. H. (Calcutta).—We note your statement that Mr. Price the Head Clerk of the Inspector-General of Civil Hospitals, Bengal, is a Eurasian and the stepson of a Mr. R. T. Hanby who used to be Inspector of the Customs Preventive Service in Calcutta. We note also that he was appointed in place of Mr. White, when the office, to which Mr. Price was attached, was amalgamated with that of the Inspector-General. We note also your statement concerning other details.

R. G. C. (Calcutta).—We note your statement that Drs. Warden, McConnell, King, Whitcombe, Dracup and McKenzie were all Anglo-Indians, and were members of the I.M.S. We note also your statement that they were your relatives.

T. C. (Ghaziabad).—The Conference in Allahabad will it is hoped do much good. The Mexican colonisation scheme was published in the daily papers by ourselves.

P. M. O.'s clerks.—We have received numerous statements against these scoundrels. We mean to place the whole matter before the authorities, and if they are not punished departmentally we shall move the solicitors of the Indian Medical Association to take criminal action against those against whom we have convicting evidence.

Jack.—Your petition in Urdu must be translated into English before we can do anything with it.

W. C. (Wadi Junction).—Get a copy of the "Medical Register and Directory of the Indian Empire" where you will get all the information you require. We shall be glad to help you with letters.

Military Hospital Assistant.—Every member of your service, whether Civil or Military, should immediately join the Indian Medical Association and having done so they will be entitled to the support of its Council.

[illegible] (Bombay).—[illegible] suits you. We are perfectly willing [illegible].

Indian Army Nursing [illegible] to the Under-Secretary of State for [illegible] London, and you will obtain the Regulations [illegible] service.

A. R. A. (Mekran).—Thanks for [illegible]. We shall use them as opportunity offers.

An old Assistant Surgeon.—We think the [illegible] better drop.

W. H. F.—Your remarks are very appropriate about P. M. O.'s Head Clerks. Our note elsewhere will show that we are in possession of damning evidence against these harpies. We wish more men in the service would send us still further proofs. There will be no exposure of the writers. We wish to put an end to this evil system of blood sucking.

A. D. M. (Ferozepore).—Many thanks for your paper. It will appear in due course.

The Weekly Record.—It is most satisfactory to see so many subscribers signing their post-card contracts for the *Weekly Record*. A few Hospital Assistants have written stating that one rupee a month for a weekly paper is more than they can afford. We are sorry to learn that the graded subscriptions should fall heavily on anyone's pocket. One rupee a month and one rupee and eight annas a month are surely small enough prices, and no Hospital Assistant or Assistant Surgeon ought to feel this hard. The rates unfortunately cannot be lowered.

R. D. G. (Calcutta Medical School).—We agree with you that the classes and the instruction in your school and in the Campbell Medical School are about on the same level.

Local Practitioner. (Hyderabad, Sindh).—Complains of the veterinary surgeon "practising medicine of human subjects." If our correspondent will sign his name to his letter (not for publication), we shall publish his grievance.

M. G. (Islampur).—The Surgeon General with the Government of Bombay is an ardent reader of the *Record*. Almost every I. M. S. officer reads it.

ANTIPYRIN FOR DIAGNOSTICATING KIDNEY DISEASES.

Dr. L. Bremer, in a paper read before the St. Louis Medical Society, has expressed the belief that he has discovered a new method of diagnosing diabetic, pancreatic and kidney diseases by reason of the affinity of the blood and secretion of a diabetic patient for certain aniline dyes. His experiments demonstrated that the secretion of a healthy person has an absolute antipathy for the dye known as gentian violet. When the dye was poured into the secretion of a healthy person it remained floating upon the surface. When the same dye was poured into the [illegible] instantly and colored the whole [illegible]. The [illegible] of the dyes and acids upon [illegible] was [illegible] remarkable, showing [illegible] trum, beginning with red [illegible] blue and white at the top. [illegible] of the [illegible] affected in the same manner [illegible] urine.

EUROPEAN

[illegible] Dispensary.

[illegible] venture to [illegible] * knowledge " have on diet, and [illegible] on such subjects, were it not that [illegible] forced on my attention in prac- [illegible] did I not feel that my experience justifies me [illegible] some facts, it may be, not without value.

During the first twenty years of my professional life I pursued my work in many different countries and climates, and with many different nationalities and races. When, lately, I told a perverse English lady, who was well up in the relationships of the Royal Family and who worshipped in the temples of the rich and great, that my favourite dinner at 7 P.M. was a Scotch finny-haddy with potatoes boiled in their skins—which skins I always ate—followed by a cup or two of finest Ceylon orange-pekoe tea with a slice of very dry toast and a nice apple, her ladyship showed the greatest disgust at my vulgar taste. I had to tell her that I had seen the Kulin Brahmans of India—in whose presence, were we not conquerors, the proudest nobility of Britain would be but Pariahs—eat their sparse meal of boiled rice and curry off a leaf on the ground, and drink after it a draught of water drawn from the Ganges. Now, provided that the Kulin Brahman be not too poor, so as to be unable to buy vegetables for his curry, or lime juice, with which to flavour it, or the acid tamarind with which to make his chutney, his chutney well-flavoured with garlic—this same Brahman, so sparsely, so wisely, so purely fed, is capable of a degree of fasting or of an amount and duration of physical exertion which would be impossible to any but the best-trained and finest young men of Britain. But you must make sure that the Hindu gets adequate salt and acid-fruits, and if you desire to preserve him from anæmic states, from chronic diarrhœa, from chronic-dysenteric-diarrhœa, from rapidly-forming sloughing ulcers—both of the skin and his intestinal mucous membranes—&c., you must submit your school and western learning to the Hindu's beseeching demands, for fruits, lime juice, tamarind, onions, &c.; the experience of thousands of years has taught or evolved an almost perfect diet throughout Eastern Aryan-Hindu countries. Neither the Hindu nor Moslem, when they take their chupatti—not—use the finest flour, they are far too wise; they use a darkish flour, which holds part of every quality of the grain, just as the sagacious Sandy of the North, wisely and well, prepares his oatmeal porridge.

If the Hindu can get it, he prefers the waters of the holy Ganga-ganga or Jumna-jumna to all others. I published in 1861 and 1866, that the waters of the Ganges were, in the highest degree, safe and good for the native. [illegible] doctors laughed at me; I am still of the same opinion. I see also that Professor HANKIN has shown [illegible] waters, are, bacteriologically, among the best. [illegible] opinion in 1861-66 was based on observation, experiment, and analogy. The Hindu is apt to [illegible] by quacks.

[illegible] [illegible] [illegible] [

consuming [illegible] [illegible] of [illegible]. [illegible] the

[illegible]	Number per c.m.	Number per c.m.
Outside [illegible]	[illegible]	221,000
Outside [illegible]	[illegible]	170,000
[illegible]	[illegible]	20,410,000
[illegible]	[illegible]	28,242,000
[illegible]	40,000,000	400,000,000

treatment. We are obliged to conclude that individual [illegible] hold; of their very nature, a "potential" energy which, becoming active and kinetic, repels the bacillary hosts; certain types of men and women may live with these in [illegible], but will not—cannot in general—be subject to the phthisis bacillus, the Hindus and Mussulmans of Bengal do not, in the main, fall victims to the common bacillus during the S. W. monsoon; but they pass into cholera rates, with the *extremes* of their climate, the great heats of April and the coldest season in December.

Thus, whether we contemplate disease, naturally or historically, the mind is carried into far wider circles than those of the sterilisation of water or of milk. At the same time we all bow with respect to those exact researches on water and milk which have shown us one assured and safe but partial path into the great field of zymotic disease.

In chemistry, physics, astronomy,—*i.e.*, in the exacter and more elementary sciences—one fact, often exceedingly slight, if pursued, opens up the widest general truths and even universal laws. But such instances, as the established facts, that typhoid, scarlet fever, &c, have been carried by water and milk do not imply universal laws, and for the reason that the organic cell and organic life are absolutely cosmic in their corelations and evolution †

Necessarily, in a large dispensary practice, amongst the poor, I have seen great numbers of children with chronic diarrhœa. There are a great variety of admirable diets within our reach, but I have, during forty years, been continually reminded of and impressed with the neglect of the use of "acid fruits" in the chronic diarrhœa of children, from one year old upwards. In India the young and old will beseech that they may have tamarind, lime-juice, sugarcane, &c. In my early experience I gave children and adults who had chronic diarrhœa, tamarind, lime-juice, &c, with great caution; I had been warned against their use by high medical officials, but the earnest demands of the people for these foods could not but arrest my attention, and I saw no just "philosophy" against their use. On the contrary, the diarrhœa and dysenteric-diarrhœa of the Native was not an affair mainly of the bowels, but had the widest generic basis of an anæmic, or semi-scorbutic and exhausted vitality, the result of many generations of hereditary poverty of food, and ages of climatic influences

* Mr. J. Aitken in the Transaction of the Royal Society of Edinburgh, Vol XXXV, part I., 1888, gives as the result of his experiments on "The number of dust particles in air."

† I was once associated on medical duty with a "burra Sahib" whose wife determined to have, for her own use, pure and good milk she therefore procured a milch goat. but it was remarkable and vexatious to the Lady Sahib that she could, even then, get no milk for her breakfast, Nanny was dry every morning. There was about the place a very pretty young Hindu girl called Moti; her office was to deck the image of the goddess Durga, in the Temple with flowers, she was also mistress to the priest. One of my night watchmen reported to me that he had caught Moti lying on her back with her face under Nanny, milking the streams into her mouth A pleasant picture was all that could be extended to so beautiful and clever a young [illegible] She derived no harm from Mr. J. Aitken's germs or dust!

The prevalent "habit" of the Native's diarrhœa [illegible] related to, and in continuity with, [illegible] proneness to an irregular quotidian fever; thus the [illegible] diarrhœa in the native of India had to be viewed [illegible] widest pathological stand-point, and his demand for "acid fruits" had to be deeply considered. I began my use of tamarind, lime-juice, &c., in the chronic diarrhœa of the native with great fear and anxiety, but I very soon saw that his craving for them was a just call of nature. I found that I could hardly err in the freedom with which I gave "acid fruits" to the chronic-diarrhœa-stricken native.

Native men, women, and children would come about me and ask for "nimboo ka arrack" lime-juice; they would continually say:—"Sahib, my health will go right if I drink lime-juice." It was impossible to ignore the earnestness of the people; we have deeply to learn from the ages of the historic experience of the East. You see a semi-nude man or woman in the tropical early morning, going down to the Ganges to bathe and worship; they have no desire to be seen or approved; they walk down the muddy banks and enter the river. They perform their worship and function of health, return to the top of the bank, slip off their wet cloth for a dry one, and return to their village and duties. Such is the East; a wise and grand simplicity of life remains; the same simple earnestness and truth of life obtained when the great literature and Ideas of the East evolved, as written in the Vedas, the Psalms, Gospels, Epistles, &c. We can no more ignore the habits of Eastern people, in reference to health, than we can ignore their poetry and highest mental and spiritual philosophy The splendour of a Lord Mayor's dinner, or of a Sunday morning's fashionable ladies' church-parade, are no doubt marks of a high civilisation here; the naked Hindu making Puga in the Ganges, unseen and unknown, expresses an equal if not a higher civilisation,—"East is East, and West is West."

Here, we have the glorious institution of the "morning press," "educating" the world! There, the greater phenomena of nature, the greater dangers to life, a less physical robustness, make men live in a more constant sense of dependence, and in a more subdued spirit. The Native sitting on the bank of the Ganges can hardly feel interested in the last ephemeral publication of the *Strand*, or in the latest fashion of bonnets, dress, collars, &c.

Now, what I have tried to convey as to civilisation in general, has its application in medical practice; your fever-saturated, dysenteric, diarrhœa-stricken, anæmic Native will often be treated in vain with the best drugs,—cupri S., plumb. acet., bismuth, chalk, catechu, bael, &c., &c.,—and even with the grand old medicine—opium; the native man or woman with chronic bowel complaint, having a dozen motions daily, will ask for lime-juice; his instinct is a safer guide than is our Western teaching. There is not only no risk in giving lime-juice, but the patients will often recover under its use. I never ignored the valuable drugs I have named, or any other drugs, but I had to submit my Western book and "school" teachings to the greater "light of the East."

Similarly with Natives, in chronic diarrhœa, the fever taint must ever be kept in view, and quinine in this [illegible] demanded.

[illegible] particles of the philosophy of [illegible] reason. I have taken a glance at [illegible] our drugs, and rather [illegible]

I submit that we in the West, notwithstanding the magnificent labours of exact science, have still much to learn from the simple observation of the habits and experiences of ancient peoples and their civilisation.

I have long learnt to apply some Eastern experiences to Western people, *e.g.*, children with chronic diarrhœa often will crave for a little vinegar, lime-juice, pickles, &c., with their food. I have very rarely, if ever, as far as I can now remember, had reason to regret ordering such in suitable cases; but I have continually seen good from their use.

But it is not only in chronic diarrhœa that "acid fruits" do good; they are of great use in that habit of body where the boy or girl has chronic eczema of the body, behind the ears, and scald-head. Such children are often most carefully dieted, debarred fruits, vinegar, pickles, &c. If such children tell me *that they like* apples, green gooseberries, pickles, &c., I not only do not debar them but encourage their use. I cannot remember that I ever knew a boy hurt by stuffing himself with green gooseberries, or raw apples, or sloes. Old East Indians are not hurt by a free use of turpentine-flavoured mango in its season. The negroes in the West Indies will make short work of two feet of ripe raw sugar cane.*

From nations, north, south, east and west, adults and children have shewn the value of fruits and vegetable acids, and I would add my small testimony to their value and necessity often in the chronic diarrhœa of children in Britain.

At the end of last year—1897, a medical man told me of his child, aged about one-and-a-half-years, who was suddenly seized with profuse diarrhœa and instantly with almost fatal collapse: brandy was given, and it rallied; but several fingers and toes mortified and came off, so nearly fatal was the collapse; the circulation must have ceased in the extremities, leading to the gangrene. The diarrhœa remained many days, in a less degree, highly fœtid and severe. I suggested a teaspoonful of the juice of a lemon twice a day in water and over its food. The child at once improved and rapidly lost its offensive motions and got well.

I am not now referring to acute fevers or inflammations, but to chronic disease of varied types where the appetite fails, in such often I have found great benefit in departing from the everlasting English cooking of mutton, beef, poultry, &c., and from giving the patient some of his unorthodox desires, *e.g.*, boiled crab, lobster, or cray-fish, with plenty of malt vinegar; in other cases, salt-fish of various kinds is much relished. In cases of indigestion in some of its so-varied forms and wide bases of correlation—I have often seen the greatest benefit from giving the patient a rather free play in the matters of diet. In the over-feeding and over alcohol-drinking Europeans, a *moderate* use of Carlsbad or Frederickshall, &c., will do wonders, the activity of the whole organic tract seems to be roused by these waters. I have not been led to stop the use of tea; I find that some medical men, in nearly all cases of "indigestion," stop the unhappy patient's tea; I do not think this medical practice goes to the root of the matter; it is a narrow generalisation and practice to debar patients in general the moderate use of tea. Tea is made the scapegoat of many and big sins.

As to potatoes, we all know how great is their value in preventing scorbutic dysenteric-diarrhœa. Dr. BALY's experience and researches, at Mill Bank Penitentiary,† should be more known to the present race of practitioners; were this so, potatoes would not be so often debarred. I order them to be steamed or baked in their skins. It has often happened to me to find children loathing ordinary food, eat with avidity potatoes so prepared. Of course, a little butter and salt are used with them, and I have often found that children will greatly relish them with a dash of malt vinegar. I was once at St. Helena with 500 Natives of India. A Jersey Schooner arrived with a cargo of potatoes, having the legal right, I requisitioned 100 bags at £1 sterling a bag, but greatly to the disgust of the merchant firm which had to pay for them. I knew of BALY's great teachings, and I knew from my own experience the value of potatoes to the semi-scorbutic; *a fortiore* in cooking them, they were washed only, previously. They were then cut up with their skins on, and curried for my people; as the Irishman saves all the juice, salts, and 'virtues' of the potato in his stew, so I saved these same in the liquid curry.

When the Native cuts up his potatoes (if he can get them) for his curry, he never skins them, he is far too intelligent to skin them and then boil away their salts, as is the fashion with ourselves. But if you would give the Native joy in his food he must have some lime-juice in his curry—"acid fruits"; a sure instinct and a vast experience has taught him this.

In a vast degree amongst the Natives of India, the so-called "different diseases" of our nomenclatures blend and have insensible gradations; a faithful observer will often be puzzled to say under which name he should grasp certain cases—whether as anæmia, or scorbutic, or fever (Bokar or Tap), or of the dysenteric-diarrhœa, or diarrhœa groups. The Native often has a cachexia with, I may say, a blend of all these "different diseases"; the greatest skill, experience, and pains, will often be at fault in judging the vital power of the Native. Seemingly fine men will

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*The habits and practices of primitive races are founded on a vastly long experience, and are thus always worthy our best thought and study. Schwatka says (search in quest of Franklin's Records), that when the Esquimaux hunter has captured a seal—"the next operation . . . is to make a slit in the stomach, of the sometimes still breathing animal, and to cut off some of the warm liver (ting-yer), with a slice or two of blubber (ohn-seek), wherewith the hunter regales himself with a hearty luncheon." The same traveller says of walrus—"The largest part of an Inuit's food is, however, eaten raw." But the Esquimaux boil such food when possible, and their "O-yook, O-yook," is the cry for warm walrus meat; such "warm food" feeds are "festal occasions, though they occur several times a day, and may happen at any hour of the day or night."

A most interesting and instructive account is given by Schwatka of the value of vegetables or fruits, he says—"As soon as the snow leaves the ground, the hill sides in many localities are covered with the vine that bears a small black berry (called by the natives parwung) in appearance, though not in flavour, like the huckleberry. It has a pungent, spicy tartness that is very acceptable after a long diet of meat alone, and the natives when they find these vines stop every other pursuit for the blissful gratification of devouring their stomach with the fruit. This is kept up if the crop only lasts long enough until they have made themselves thoroughly sick by their gluttonous indulgence. But the craving for some sort of vegetable diet is so great that, with their Inuit improvidence they indulge it, were fear of [illegible]

† Dr. Baly says:—"Wherever this disease (Scurvy) has prevailed, there the diet of the prisoners, though often abundant in other respects, has contained no potatoes or only a very small quantity. In several prisons the occurrence of scurvy has wholly ceased on the addition of a few pounds of potatoes being made to the weekly dietary." (Watson's Practice of Physic. Lecture, &c.)

[illegible] with a [illegible] can be [illegible] that [illegible] autumn [illegible] such a [illegible] in such [illegible] after [illegible] perfectly [illegible] no [illegible]

[illegible] apart from this [illegible], in the natural and [illegible] evolution of cholera, it is in such enzootic, semi-[illegible], fever-stricken [illegible] people that fruits and vegetables do so much good. The chronic diarrhoeas, [illegible] of the low-fed fever-stricken Natives of India, [illegible] not only have full doses of opium, but [illegible]-juice. We have not to treat the name of [illegible] disease, but a very wide and generic and [illegible] exhausted condition of his protoplasm.

Bacillus or not, cholera is endemic in the Native of Bengal, may I say, has evolved there in all its types, from the fever with tendency to choleraic collapse up to the most sudden blow cases; its major form must be in wide orderly natural changes within the system, and in continuity with the fevers of Bengal. It is, I submit, within the range of scientific and philosophic method, to hold that the modes or molecular motions of infectivity may be acquired by cells and cell-contents, and that thus cholera may sometimes be communicable by bacilli, &c., but it must no less be remembered that it is only at certain seasons, times, and ages, that the protoplasm of the race can take on, or be affected by, the particulate molecular states of cholera bacilli.

I have so often written on the value of onions, both for the Natives of India and Europeans, that I would not now refer to the subject, but I still see a stream of delicate and prephthisical young people who, having the main complaints of "weakness," wasting, loss of appetite, inability to eat fats—except butter—cold feet, especially at night, yet have a liking for onions; they say that they not only like and have a strong longing for onions, but that they get great good from their use, that they agree with them, *a fortiori*; I view phthisis, not as mainly a disease of the lungs; that is the last stage of a more or less long prestage of varied symptoms and failures, *e.g.*, loss of appetite, sensation of weakness, wasting, night sweats, &c.; these pre-symptoms are true parts of the full form or nature of phthisis. I do not doubt that proper modes of life, sunshine, out-of-door life, varied changes of climate, &c., often ward off the final lung disease; less so, it may be that the right kind of food may ward off the final stage; from the mouth of such patients I have a hundred and one times heard the emphatic demand for onions, heard the patients say that no other food does them so great a good.* I could no more ignore this demand than I could formerly ignore the Native of India's demand for tamarind, lime-juice, &c.

It is not meant that a free use of onions, in those who are pre-phthisical, will surely prevent the final evolution of the disease in the lungs, but that as phthisis pulmonalis is often a very slow evolution, where the sense of weakness, the wasting, the loss of appetite, &c., may be hovering for many months, or even years, if [illegible] in long-

* It [illegible]

[illegible] before [illegible], we [illegible] good [illegible] may be [illegible] stages. Assigning the first [illegible] version, [illegible] not the [illegible] sult very much of deficient "energy" [illegible] tedema [illegible] its differentiation [illegible] health and life of a phthisical [illegible] we all feel, be promoted by a [illegible] mit that if a patient tells us of the good [illegible] special food, *e.g.*, the onion, we are giving, by its use, both a potential and kinetic "energy" to [illegible]. The difference between the protoplasm of one who will not pass into phthisis and that of one who will [illegible] become phthisical is infinitely small, yet [illegible]. I have too often seen the delicate prephthisical girl or youth loathing the best orthodox kinds of food, and longing for raw or cooked onions; which, when given was eaten with pleasure and benefit. Such are the facts; every one of necessity forms hypotheses; in this case the "provisional hypothesis" is that we supply the protoplasm with the closed chains and stable bonds of the benzene molecule, the resultant smell of the breath proves that the "energy" and "modes" of the benzene molecule have penetrated and influenced every ultimate molecule of the system. Nor can we overlook the fact that the onion is a monocotyledon; the mono-cotyledons in the great organic vegetable evolution, were earlier than the more differentiated dicotyledons, and perhaps thus have more "energy"; we see often that great differentiation means lessened vitality; the primary germ or ovum cells have vastly greater energy than have their differentiations, in the highly specialized animal and vegetable structures. The lung tissue is an extremely differentiated structure, and it is, I submit, quite a justifiable hypothesis to hold that the mono-cotyledon benzene molecule may be of value in sustaining its healthy growth.

Among the facts of atavism we notice that peculiarities of structure of function and deviation into "disease" *e.g.*, phthisis, may re-appear after skipping even many generations; deviation of function in one generation may be in true continuity with deviations of structure in another generation; *i.e.*, structure and function are corelative and may be atavic; we see the manifest great determining influence of the "germ cell" potential energy,—all these wider biological considerations make us modest in our expectation of being able to give a new and resistant energy to the lung-tissues; we recognise this commanding influence, inherited from the germ-cells. Yet the daily experience proves to us that environment does vastly modify both structure and function; variation under environment is one of the greatest truths in the biological evolution. It is, therefore, a just expectation that we may be able to give "energy" to the lung segments and tissues. Environment may be outer *i.e.*, the physical energies in which we "live and move and have our being"; and it may be inner, *i.e.*, food. The physician has to wisely grasp and apply both these directions of power and influence over the [illegible].

There is a great and [illegible] that creosote, guaiacol, [illegible] of [illegible] phthisis. I take it that [illegible] onions belongs to the [illegible]

[illegible] the stable carbocyclic nucleus to the [illegible] protoplasm. I prefer the onion, because it is, to most such patients, highly palatable and [illegible]. I have also often observed that the faint sickly smell of prophthisical breath disappears after the use of the onion. Young ladies may rest assured that the after-smell of onions in their breath is far nicer to men than is the semi-fecal odour of their breath, which is far from uncommon, and due to neglect of attention to obvious calls of nature. An Indian woman's breath has its own smell, but I never noticed its having a fecal taint. The Native of India, like the pre-phthisical of Britain, dearly loves the onion. I can hardly doubt that the habitual use of the onion, together with his acid-fruits, will much and often ward off those fatal failures and ulcers of his intestinal track.

As I have already said, the onion supplies the benzene molecule with its closed chains and molecular stability, to the feeble bonds of protoplasm both in the Native of India, and in the European.

But if this temporary hypothesis be unstable and ephemeral, yet it remains that a vast number of most delicate pre-phthisical youths, girls, and adults have most emphatically stated their great desire for onions and the good they get from them; the empirical as of old, points the way, however weak may be our hypotheses, we can not too strongly hold the principles that phthisis is not a "disease" added to the system, is not, in its deeper nature, a disease "caused" by a bacillus, is not mainly "disease of the lungs," but that its foundations reach back to the blastoderm, and even in atavic phthisis to the blastoderm of remote—even very remote—ancestors, phthisis must be viewed in the light or method of "variation" in species, *i.e.*, that the system or individual may be made to retain much of its type, or may be made modifiable by environment, by changing its conditions In this view it is obvious that a fit and suitable food may have a powerful influence in sustaining the conditions of health in a prephthisical subject. At any rate I have but to record my experience and observations, both in India and Europe, and to ask my brethern, either to support or demolish from their experience, my "Idols of the Den."

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ARTHRITIS IN CHILDHOOD. ITS VARIETIES AND THEIR DIAGNOSIS.*

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Simple, as seems this subject at first sight, the more one sees of the various forms of arthritis that occur in children, the more one is impressed with the difficulty of diagnosing one variety from another for prognosis and efficient treatment.

As much tenderness with swelling and redness of joints in a child always raise a suspicion of something else, it is not easy to diagnose the articular rheumatism of childhood where the severity of joint symptoms is quite the exception, but in children the following symptoms which are far commoner than in adults will materially assist the diagnosis:—The presence of (1) a distinctly endocarditic bruit and (2) subcutaneous nodules, neither of which is to be looked upon as a clinical curiosity, but as a valuable aid to positive diagnosis.

A history of rheumatism in the family is of some value; but too much stress must not be laid on it as it is very common to get a family history of acute rheumatism, where the child shows no rheumatic taint whatever.

When you see a baby with swellings about the joints, you can be pretty certain that it is not rheumatic; as there is practically no such thing as articular rheumatism in infancy.

Always inspect the child's gums and bear scurvy in mind when you are tempted to diagnose rheumatism in an infant, for there are few diseases that respond so rapidly to treatment or so closely simulate rheumatism as scurvy.

Epiphysitis, whether syphilitic or otherwise, has been mistaken for rheumatism; but the extreme local tenderness, the œdema extending beyond the joint, the severe general illness and the occurrence of suppuration in one or more of the affected joints speedily settle the diagnosis.

Except when there is a distinct history of syphilitic infection or it is concurrent with opthalmia neonatorum, gonorrhœal arthritis is very hard to diagnose, without bacteriological examination, though it does occur in infants as well as in older children, and last year Dr. Lees treated a girl, aet 35 months who had a profuse purulent discharge from her vagina, while her hands and wrists were swollen and painful. On treating the vaginal discharge the tenderness of the hands disappeared quickly, but the swelling remained for some weeks.

The stiffness of the neck, tenderness and pain about the shoulders and some rise of temperature that mark the onset of infantile paralysis occasionally suggest the possibility of rheumatism

Monarticular rheumatism is apt to be very puzzling in children, and the tendency to affection of the hip joint in the rheumatism of childhood has caused curious errors of diagnosis. Thus two children were admitted, the one for perityphlitis, the other for intussusception, because among other symptoms both children complained of pain in the right iliac fossa; but subsequent events proved the whole trouble was rheumatism of the right hip-joint.

Gouty arthritis does occur, though with extreme rarity, in childhood, and a few instances are on record where undoubted and severe hysteria simulated rheumatism in children under twelve years of age.

So much for acute rheumatism. Let us now discuss chronic fibrous rheumatism which is distinguished from the former by the inflammatory process extending outwards to the surrounding structures to produce adhesions and thickenings that enlarge and permanently fix the joint.

The diagnosis of this condition depends partly on the curious firm fibrous thickening about the joints and partly on endocarditis, subcutaneous nodules and other well-known rheumatic manifestations; but it is likely to be confused with the various forms of rheumatoid arthritis, of which two forms are usually seen in children.

The first of these is a progressive polyarthritis which begins, usually, before the second dentition and affecting almost every joint in the body produces effusions into the joint cavity, thickens the capsule, causes changes in th

* Reprinted from the *Indian Medical Record* of a lecture delivered at the Great Ormond Street Children's Hospital.

[illegible] there [illegible] of bones [illegible] onset [illegible] is often mistaken, [illegible] associated with [illegible] and usually begin[illegible] the first [illegible] is rarely met later [illegible] sixth year and is quite unlike a tubercular disease, [illegible] is no tendency [illegible] of bones nor to tubercul[illegible] elsewhere.

The second division of this vague group resembles the rheumatoid arthritis of adult life in all points. There is no enlargement of the spleen or other glands and no rheumatic complications though there are slow enlargement and [illegible] of several joints and osteophytic changes with [illegible] of bone which settle the diagnosis. This form of the disease usually begins after the age of six years and can also be distinguished from tubercular disease by its extremely chronic course, the absence of other evidence of tubercle, the symmetry of the affection and the number of joints involved.

Though the two classes overlap in their pathology and bacteriology, septic arthritis may clinically be classified as arthritis (1) with specific fevers and (2) with a primary focus of infection.

The arthritis that follows scarlet fever and diphtheria is not always a transient affair and seems to be most common after severe faucial affection; but the extreme constitutional disturbance, the exquisite tenderness of the joints and the presence of œdema over them are the determining points against rheumatism.

In most of the cases of arthritis following measles there is some severe lung complication which may be the source of the arthritis.

Influenza sometimes gives rise to a septic arthritis which occasionally follows mumps or may be the result of erysipelas.

Quite early in typhoid in children there sometimes occurs a transient arthritis which is indistinguishable from rheumatism till it reaches the suppurative stage; Yet there are cases where articular rheumatism, in a child, has given a temperature chart like that of typhoid.

In the second group the arthritis has its origin in some definite localised source of infection such as otitis media, empyema, bronchiectasis and syphilis.

In posterior basic meningitis of infants there is sometimes a swelling about one or more joints which might be put down to arthritis; but if the swelling be cut down on, the joint will be found perfectly healthy while the lesion consists of a lymph like exudation about the tendon sheaths in the neighbourhood of the joint and round its capsule.

Tubercular arthritis, though at first somewhat confusing may be distinguished by the characteristic "pulpy" feeling of the joint, the evidence of the tuberculosis elsewhere and the course of the disease.

In septic arthritis due to any of the above causes the joint affection may be (1) quite a transient affair or (2) may result in permanent thickening and adhesions with any degree of fixation up to complete fibrous ankylosis of the joint or (3) there may be suppuration and complete disorganisation of the joint.

[illegible] the cause [illegible] of [illegible] a progressive [illegible] up which lasting weeks or [illegible] out and leaves only its traces behind. [illegible] with the history will usually [illegible] septic arthritis from the rheumatic [illegible] cially as in septic arthritis the [illegible] often altogether out of proportion to the apparent [illegible]tion of the joint.

THE MEDICAL INSPECTION OF SCHOOLS.*

By Dora Keen.

President of the Committee on Medical Inspection of Schools of the Public Education Association of Philadelphia.

In October 1896, their Sanitary Superintendent, Dr. Charles F. Roberts told the New York City Board of Health that the best way to avoid the contagious and infectious diseases children frequently transmitted to their schoolmates, was to make a daily systematic examination of the school children by medical inspectors of the Health Departments.

The 'Parochial Schools' of Philadelphia did do this long ago, but gave it up owing to a mistaken and ill-founded opposition, which however, opened the way for the Boston Health Board to conduct preliminary investigations into the scarlet fever and diphtheria records of the 19 years immediately preceding 1890. They found that the smallest number of cases occurred during the summer vacations and the largest in January. Thus, these 19 years shewed.

	Diphtheria.	Scarlet fever.
January	3,339	3,107
June	2,537	1,985
August	1,765	1,308

The Boston Board immediately recommended daily medical inspection of school children; but it was not till 1894, when a severe epidemic of diphtheria forced them to it, that they inaugurated the work as a city health-protective measure with such grand results that Chicago followed suit in 1896 and New York in 1897, though Philadelphia adopted the system in the Girl's High School in 1892. Then Brussels took up the strain which spread to Europe on the Boston plan and now Providence, Baltimore and Milwaukee are seriously agitating this question which is the key-note to progress.

But it was not till November 1896 that New York acted upon Dr. Charles F. Roberts' warning by securing the absence list of a class in which a case of contagious disease had occurred and visiting the absent children to learn the causes of absence. The examiner reported that though every severe epidemic had some [illegible], many cases of diphtheria and scarlet fever [illegible], while children sent home by teachers [illegible] frequently failed to call in a physician and returned to school when feeling well, even though at times they were in just the condition to spread contagion and should have been quarantined.

* [illegible] Report, made [illegible] paper [illegible] before the [illegible] at the Millersville State Normal [illegible]

[illegible] from the [illegible] and does not infringe on the [illegible] of the family physician. His work is to [illegible] daily at the opening of [illegible] all pupils found ill or complaining and (3) [illegible] should it exist, [illegible] (4) exclude contagious diseases from the school. He records (5) his diagnosis &c., in a book kept by the Principal and forwards daily or weekly reports to his chief.

When practised systematically, every day, inspection takes up but little time and causes but little confusion and that it does a great deal of good is proved by the facts :—

(1). Out of 3,964 pupils examined during 1896 in Boston, 1,156 were too ill to remain in school, 3,934 had oral and respiratory affections and 267 specific infectious diseases ; while in one school parasitic diseases of the head showed 74 per cent. affected and 7 per cent. badly affected.

(2). During the last four months of 1896 the inspections revealed 1,417 cases of diphtheria and 306 of scarlet fever at Chicago, where, however, in the school year 1896-97 as many as 4,023 infectious cases were detected.

(3). In New York 702 cases of contagious eye diseases, 2627 of parasitic diseases of the head and 804 cases of other contagious diseases were found in 63,812 children examined in the first three months.

As far back as 1878 Dr. S. D. RISLEY started an enquiry into the eyesight of pupils at Philadelphia and later on wrote " many a school-boy idle only at his books, dull only in the recitation room, is so because he finds the continued use of his eyes a painful task" and near-sightedness necessarily affects his mental and physical constitution, and a system of education that attempts to force the same results from all children alike, often mistakes the means for the end by keeping in view the system rather than the child's development; but as Dr. RANDALL puts it, "It would certainly be an incubus to the teacher to constitute an official group of lame ducks for whom forward seats, special illumination or lightened burdens are required." Still the facts remain that of 2,000 children examined on behalf of the " Philadelphia Teacher's Society for Child Study " 54 per cent. had defective vision though in the majority of the cases the affected pupils were not aware of their affection.

In America near-sightedness rises from 4·5 per cent. of children 8-5 years of age to nearly 20 per cent. at 17·5 years old, and as even perfect hygienic conditions of hours, seating and light failed to arrest the increase of near-sight in Germany. The committee of the County Medical Society (Philadelphia) have drawn the conclusions that :—(1) the possible presence of defective vision should be excluded by examination before entering school where the (2) course of study should be so chosen as to [illegible] protracted use of the eyes at a near point, while (3) [illegible] examination should be done away with and (4) text-books should be printed in large type [illegible] (5) the method of writing [illegible] (6) Then as numbers of pupils [illegible] out after the first few years, [illegible]

[illegible] badly, and while [illegible] is to recognise and seek for contagious disease the Medical Inspector will find a useful line of study in the [illegible] detection of defective children, since the modern plea for individualism in education seeks to adapt conditions to the child not the child to conditions.

Last July, Mr. ALEXANDER GRAHAM BELL urged a plea for the creation of special schools for the deaf with small numbers and centred at convenient points. Chicago reports *eight* such public day-schools. Europe has special schools for special classes and a few such already exist in Boston, Chicago, Providence and Wisconsin ; but though an intelligent public may recognise that facilitated work and results to both pupil and teacher, justify a demand for special schools for the mental, the physical and the moral defectives ; still to be thorough the work should include private schools, kindergarten classes, charity schools, and day-nurseries quite as much as the public and parochial schools and the financial basis of their medical inspection must be thought of, since an average of 1000 pupils and 3 school houses constitute the capacity of work for each Inspector. Boston maintain 50 and New York 150 Medical School Inspectors at an annual cost of $10,000 and $45000, respectively, irrespective of report-blanks, office-work and incidentals.

Medical Inspection should begin in the kindergartens and primary grades which practically include all children under 10 years of age ; but the former demand the closer scrutiny, since, in them, by virtue of different processes, children are brought into close contact with each other, and use in common a large number of objects liable to become infected. Apart from other institutions and older children Philadelphia has 395 school-buildings where 113, 277 pupils *below* grammar grades, study, and to do justice by these children at least 113 medical inspectors will be required.

In Chicago the inspection had to begin in the old school houses, since the number of sick children from the old are greater than from the new buildings in which more attention has been paid to hygienic considerations.

It has been estimated that 7 per cent of epidemics might be prevented by efficient school inspection and the Boston pioneer in school work, Dr. S. H. DURGIN wrote " while not attracting any special attention, a child with unrecognised diphtheria (for instance) may yet attach infective matter to the desk, chair, slate, books, slate or lead pencil, penholder, sponge, drinking-cup, door-knob, door, window-sill, banister, wainscoting or to anything else which he may handle or touch after using his fingers about his mouth, and the fact that these things may become infected with diphtheria in this way has been conclusively shown in the laboratory by Professor BENNETT."

Attention should also be directed towards overcrowding, heating, plumbing and ventilation, dark basements, insufficient and uncleanly lavatories, seating and school furniture, recess periods, over-study and grading of pupils.

Again there are many diseases for which the law requires no report *viz.* parasitic diseases of the head, contagious eye-diseases, follicular tonsillitis and oral and respiratory [illegible]

[illegible] ing [illegible] and [illegible]—all of which are occasions of contagious enough to demand exclusion from school; and some of them are positively dangerous, while all of them interrupt the school life of the children in some degree or another.

The medical profession quite generally, through the journals, has suggested or endorsed the movement for school inspection, which comes properly within the function of City Health Boards, yet no less does it claim the interest of physicians and teachers, and wherever established Boards of Education have co-operated in the work.

BUCKINGHAM CANAL AND INCREASE OF ELEPHANTIASIS AT MYLAPORE IN THE CITY OF MADRAS.

By James Harris, L.M.S.

Madras.

Of late there has been a universal impression among the Mylaporians that there is just at present a considerable increase in cases of elephantiasis in their midst. This alleged increase has also been attributed to the Buckingham canal which runs through their midst. This view being confirmed by two medical men one morning by simple ocular survey, I hear a continuous agitation is kept up for the abolition of the canal. In this particular case I cannot concur with them (as to the guilt of the canal), as I fully believe, as I have attempted to show below, that the Buckingham canal does not bear on its head half so many sins as the innocent witch that is frequently murdered for having brought misfortune on the kingdom, family or person of an African Potentate. Let us carefully study whether the canal could be blamed as the originator or aggravator of elephantiasis, of course granting there is really an increase of elephantiasis. Every resident in Madras knows there had been cases in the city long before the canal or its originator was heard of. It is being emphatically asserted that elephantiasis was unknown at Barbadoes before the advent of an individual suffering from elephantiasis, and Dr. Banchoft a great researcher and author believes that the disease has been introduced in Queensland by Chinese coolies from Amoy; our duty here therefore is not to discover the original cause as it already exists in elephantoid patients, but to disclose the vehicles of inoculation from the original cause on the intermediary host as it is aptly called.

Thanks to the indefatigable researches of Dr. Manson and his colleagues, who have proved beyond doubt that the mosquito is this intermediary host.

This sweet musician sufficiently inoculating himself with the parasite filaria from an elephantoid patient becomes torpid and inactive, and in this state throws himself on the surface of water and soon finds a watery grave. There, in the process of decomposing liberates the ovum of filaria. Whether this ovum find its way into the stomach of the primitive man, who heedless of the rules of sanitation, drinks to his heart's content anything liquid under the guise of water, or the mosquito himself before his demise directly inoculates the unfortunate to convert them into menageries of filaria as eventually manifested in the loathsome example of the most exposed parts of the semi-clad body, is still a point at dispute. [illegible] theory can be clinically substantiated by the fact that in one of the large institutions in Madras, where the strictest attention is paid to the drinking water, there are a few who have in their blood filaria presumably inoculated directly by the mosquito.

The greatest number of elephantoids in Madras are to be seen at Royapettah, far away from the canal where the people do not depend on any exposed water for drinking purposes, such as wells or tanks. At the same time those who have had the misfortune to live there, will bear testimony to the fact of its being a horrible den of mosquitoes. The immunity which the Chinese possess against typhoid is attributed to their drinking tea (boiled water); and why not by the same argument prove that he gets elephantiasis not from drinking water but by direct inoculation of the mosquitoes.

Even granting water to be the vehicle of inoculation when it is utilized for drinking purposes, why go the Mylaporians and their medical advisers to the Buckingham canal to discover the source of their misfortune, when they themselves confess their drinking water to be the sole cause of their misfortune.

[Their orthodox females object to pipe water being used for drinking purposes and always use well water.]

A theory of percolation into the wells from the canal would therefore be the only plausible excuse to accuse the canal. Reader, lean over the parapets of one of the wells at Mylapore and listen to the horrible hum inside.

The ancients thought it proceeded from Poolhams or devils. No, it proceeds from thousands of mosquitoes, perhaps hundreds of which are finding watery graves to liberate the ovum of filaria in their process of decomposition. Why then this attempt to remove the mole from the innocent canal when beams are floating in their own wells.

Even on the face of the above arrangement if the inconvincible reader leaves a margin for conjecture, we can still prove that the canal is innocent. The numberless animalculæ and tiny fishes that infest this saltish canal would never permit a mosquito or its ovum to escape their ravenous appetite.

Let us go still further and see whether there is any percolation from the canal to the town. The town of Mylapore in spite of its deficient drainage,* low situation, proximity to sewage form, has been enjoying an astonishing immunity against malaria the offspring of subsoil superfluity. Whence the cause? Every honest citizen of Mylapore will boldly declare that since the introduction of the canal the wells indicate a shallow depth, and the two vast tanks of Mylapore are empty spaces unlike their sister at Triplicane which is an unquestionable nuisance. Thus the Buckingham canal forms a great source of subsoil drainage, a want keenly felt in other parts of Madras.

In conclusion let us turn to the fact of alleged increase of elephantiasis at Mylapore. After very careful investigation it has been discovered that a local practitioner with university qualification offered to the credulous people a native nostrum with the help of a Brahmin widow well skilled in the herbal art. This novel offer precipitated several hitherto hidden cases and increased suspicion in those who possessed any malady that simulated the disease, speaking less of up-country unfortunates who poured in to be cured. Naturally Mylapore became a depot of elephantiasis. As reasonably expected no cure was effected. Could this suggestion to destroy the the canal be owing to the necessity of possessing a pool, as Bethesda, as an adjunct in the treatment of the disease, as it is repeatedly seen that no tank can contain any water as long as the canal exists.

* The present drainage system at Mylapore adopted only this year is excellent.

OBSERVATION, PRESERVATION, INOCULATION AND INGESTION.

By Major-General H. W. Morgan,
Ootacamund.

The annual meeting in Edinburgh in July 1898, of the British Medical Association, was memorable for the importance of the papers read there upon malarial fever and other tropical disorders, the propagation of which was dependent on germs, which are developed partly in man, partly in other animals. It had long been known that men suffered from parasites visible to the eye, derived from animals, such as hydatids, taenia, trichinosis, by eating diseased meat, but the outbreak of plague in Hong-Kong alarmed the world by proving that this epidemic was spread by rats, some of which animals in course of time brought the disease in ships to Bombay, whence it has spread over India.

Professor Haffkine, who has been in India since 1893, to study the natural history of cholera, and who has done so much for its prophylaxis by his process of inoculation to cause immunity, (just as Pasteur caused immunity by inoculation of animals against anthrax,) made observations in December 1896 at Bombay on plague, which he thus describes in the *British Medical Journal* for 24th September 1898, page 856.—"The first demonstration of the working of the system of inoculation for plague was made in the laboratory on the following plan :—"20 rats from a ship that has newly arrived in Bombay harbour, say from Europe, where there is no plague, are taken ; 10 of them are inoculated with the prophylactic against plague, and the other 10 are left as they are. All the 20 rats are then put together, and a rat that has the plague is introduced among them, or they are infected artificially with virulent plague microbes. In the course of time, 8, 9 or the whole 10 of the unprotected rats die of the disease, while none of the inoculated rats die, and none, or perhaps only a single rat will contract the disease among the 10 that had been inoculated with the protective lymph. These observations afforded the first grounds for trying the protective method on human beings."

This inoculation against plague has been very successful, but the preparation of the lymph is tedious, and the immunity conferred lasts only three or four months, while it is not without risk, as the fever and prostration caused by the operation sometimes have an alarming effect on the patient and his friends, especially as we are told that if his health deteriorates, he is liable to get the plague in spite of the inoculation. This is a very serious prospect, especially as no cure for plague is yet known, and more than half of those who are attacked die, in spite of all treatment. Professor Virchow's "Huxley Lecture," published in the *British Medical Journal* of 8th October 1898, page 1021, records the marvellous progress made in his life time by various observers who compared physiology, (biology in health,) with pathology, (biology in disease), so that he kept an open mind on all medical questions, forming no judgment except upon facts, carefully made and confirmed or refuted.

One of the papers at the Edinburgh meeting was by "Drs. Turner and Kolle on a more perfect serum method of inoculation for the cure and prevention of Rinderpest," on which it was noted as follows :—"Many objections have been raised to this method. On purely theoretical grounds it was urged that it was physiologically impossible to infect animals with rinderpest in such a way, as the serum would destroy the virus contained in the blood inoculated at the same time." * * * But the review ends by saying—"There can be no reasonable doubt of the efficacy of the method, which must be counted as *another triumph of preventive medicine*. (*British Medical Journal*, 24th September 1898, page 922, Column I.)"

In the same journal, page 914, Dr. A. G. Vordeman, of Java, records observations on diseases epidemic there in persons and fowls, seemingly caused by eating white rice, which were cured by eating red rice, so that apparent trifles may be of physiological importance.

Lastly, in an important paper by Drs. Manson and Ross (read at that meeting, and printed in that journal pages 849-853), on the connection between the mosquito and malarial fever, it is distinctly said that certain microscopic bodies "RESIST DECOMPOSITION AND DIGESTION" page 853, column 2, line 32. These are drawn on page 851, figure 20. If this can occur in one disease why not in another ? Surely further investigation is required.

As matter of fact it is believed that it does occur in other diseases, and has been reported to Government already by Veterinary Surgeon Edwards, in his report for 1896-97 on the working of the Civil Veterinary Department in Madras, where he states that in an epidemic of Rinderpest a certain treatment cured 23 out of 25 seizures, after the usual remedies had been tried and had failed.

The treatment was as follows :—

The flesh of cattle was taken from beasts which had died of rinderpest not more than 24 hours previously, (the fresher the better,) cutting it from the hind legs where it seemed quite good, and a broth was made of the raw meat in the proportion of a pound of meat to a quart of water at a temperature of 65°F.

This was macerated for a quarter of an hour, gently pressing the meat now and then with a wooden pestle. The liquid was then strained from the meat, and one quart of it was given to each animal full-grown, *viz.* one pint in the morning, and one pint in the evening. The calves had only half a pint each morning and evening. The broth was poured down their throats without difficulty, and the sick animals improved at once, so the broth was given to other cattle, not yet affected, and they remained free from the disease. No constitutional disturbance whatever appeared in any of the cattle, well or sick, and the latter made a good recovery.

This was duly reported to Government, and when plague broke out it was suggested that analogous experiments might be tried, but the papers above quoted had not then been published, so the authorities did not believe in ingestion, feeling certain that the gastric juice would dissolve and destroy all germs, and planted their faith to inoculation, stating there was no time to investigate ingestion, or make any experiments with it.

But in September 1898 experience with ingestion advanced another step, for foot-and-mouth disease broke out at Saitha, Nilgiris, in my herd of 60 cattle, and the

certain treatment was tried in another instance, the usual results having [illegible].

It is more fatal to English than to country cattle, and in all cases, [illegible] cow and three calves died straight off, and an English bull in an early stage of the disease (1st or 2nd day), was so ill that he would eat nothing, the [illegible] of his mouth being quite raw. In this condition, it was considered dangerous to give him the raw-mouth broth made from the flesh of the cattle which had died from the disease, for fear he might get blood-poisoning by having this fluid applied to the raw surface of this sore mouth, so the following plan was adopted as an experiment.

A country cow, three days after recovery from the attack, was milked twice a day, giving three pints of milk in the morning, and four pints in the evening, so this cow's milk was given to him in a warm, soft, bran mash, one pint in the morning, one pint in the evening, when the disease at once diminished in severity, inflammation subsiding, and fever abating so rapidly, that the attack ran its course in half the usual time, (*i.e.* in 4 days instead of 8 days), and on the fifth day he grazed spontaneously on the hill side. It did no harm, but seemed to have really a curative effect, without any constitutional disturbance.

Seeing this, the rest of this cow's milk, (five pints,) was also divided among six calves twice a day, when they also improved at once, and were able to suck as usual. Both the bull and the calves had this treatment for only one day. On their convalescence this cow's milk, given in bran mash, was eaten by fifteen other cattle affected (7 cows, 8 calves), all of whom quickly recovered, it being given to them as soon as they were found to be attacked —

The rest of the herd were separated from the sick ones, and the milk of this cow was given to them as a prophylactic, as far as it would go, and the disease did not spread among them.

It is to be hoped that other people will repeat these experiments, for if generally successful, what a blessing they will being to the human race.

If this lactic ingestion succeeds in curing foot-and-mouth disease, why not small-pox, another epidemic which attacks cattle?

Even in 1898 there are strong objections felt to vaccination by many people, at home as well as in India, but nowhere in the world is any objection felt to drinking milk of the cow, which in India is the object of great veneration by all castes alike.

When the new Vaccination Act was passed in 1898, the clauses of the old act which made vaccination compulsory, were not renewed, for though Lord SALISBURY's Government had a majority of about 150 votes in the House of Commons, the force of public opinion was so strong that it was felt impossible to compel people to be vaccinated against their will. The inconvenience of the operation is generally slight, but all of us have seen occasional cases where the inflammation locally was very severe, and the general constitutional disturbance alarming, so if people can be protected against small-pox by drinking the milk of a cow which has obtained immunity against the disease, every parent will welcome ingestion to protect children against disfigurement, blindness and death.

The chief reason at times for the opposition to vaccination is the universal belief that with the vaccine lymph other disease are introduced into the system, and [illegible] this does occur now and then, but it is the public's own fault, because it persistently refuses to enforce the Contagious Diseases Acts against syphilis, though it has no objection to enforce them against ringworm, and various other infectious disorders.

Only the progress of education and knowledge can remove these prejudices, and when the public blames the profession with not having discovered the germ of syphilis, medical men can only keep silent and pursue their studies patiently, but they have every right to demand that in this they shall not be impeded by senseless clamour like that of the anti-vivisectionists, so-called.

People are perpetually quoting the words of Shakespeare, (Hamlet, Act 1, scene 5.) "There are more things in heaven and earth, Horatio, than are dreamed of in our philosophy," yet whenever any new discovery is made it is sure to be met with a storm of indignation and contempt.

So we record here some facts noticed by ourselves and our friends, keen observers, to try to induce other people to repeat the observations, for confirmation or for refutation, so that the world may know in course of time what is fact, and what is fiction.

In the *Madras Mail* of 27th October 1899, a correspondent from Bangalore mentions that the plague has attacked the squirrels as well as the rats, and that a cat which had evidently dined off *an affected rat* was found this morning on its last legs —Another writer reports another cat being found sickening for plague, with its glands enlarged, &c. Now unless compelled by starvation, a cat will not touch a dead rat which has died a natural death, though she may accept a killed rat, if quite fresh, but if it is a male rat she will not look at it. This refers only to the domestic cat, a household pet, which likes the sport of the chase to whet her appetite, but does not like her game to be "high." No one can answer for the vagaries of the wandering "Tom" cat. It is well known that when a stag is killed, it has to be "gralloched" at once, for if the generative organs are not removed the taste of the venison becomes so strong, that the meat is quite uneatable. As these cats at Bangalore took the plague, it shows that they probably caught the infected rats alive, and killed and ate them. Kites as a rule pick up dead rats, while hawks prefer to catch them alive and kill them. With all carrion-feeders it seems that nature has made some provision for the preservation of the lives of her creatures, and what is more, she arranges that they can thrive on what is inimical to other forms of life—hence the proverb, "what is one man's meat is another man's poison."

Some years ago a Forest Officer, a keen observer of Natural History in all its aspects, noted a strange mortality among some Irulas, a primitive tribe living on the Nilgiri Hills. Rinderpest had destroyed many cattle at the foot of the hills, where it had infected even the Bison and the Sambur. Some of the latter were found dead or dying near a stream, so the Irulas slaughtered the dying and cut the bodies of dead and dying animals alike, eating them greedily in their jungle, when [illegible] soon became very ill, the disease being so virulent that

[illegible] [illegible] [illegible] being [illegible] with terrible [illegible] [illegible].

[illegible] [illegible] [illegible] [illegible] the information that the men who [illegible] [illegible] had eaten the flesh of the dying [illegible] which they had killed, while no bad effect resulted to those who had eaten the meat of the animals which were found already dead. Indeed among the Irulas, Koters and other hill tribes, the members are carrion-feeders of the foulest kind, no rotten meat comes amiss to them, yet they are generally sleek, smooth-skinned, apparently healthy, with sound white teeth.

Readers of Sir WALTER SCOTT'S novels will remember that "braxy mutton" is mentioned as the perquisite of the Scotch shepherds, yet nothing is said about any ill effects to those who ate the flesh of the sheep which died a natural death. Similarly the Koter remains free from disease while he eats only the flesh of animals which have died a natural death, i.e., from illness, not from the butcher, which is a fact, explain it who can.

It is the butcher who disseminates sickness and death, for when he slaughters a beast he is quite aware if the animal is suffering from rinderpest or other disease, so when this is the case he sells the meat at a cheap price to the poor natives, who are as ignorant as they are poverty-stricken, and who often die from eating it, especially if the meat is at all under-done. The mutton in the hills is generally better than in the plains, but even the sheep is not above suspicion, and if (as often happens) the liver is the only part diseased, the butcher sells the meat to his well-to-do customers, while the liver finds its way to some poor family, and when people die they do not suspect the food, but the death is put down to dysentery or cholera, which all regard as mysterious.

The Hare, though supposed by modern Europeans to be a wild animal, and a clean feeder, in India is often the victim of hydatids, especially near native villages, so its flesh should be avoided.

In Deuteronomy xiv, there are lists of animals which MOSES said were permitted to be eaten, and of others which were forbidden to the Hebrews. These lists seem very curious to Anglo-Indian officials who know the habits of the natives and of animals in hot climates, so that the ancient ideas of sanitation seem to be confused.

Verse 21 says "He shall not eat of anything that dieth of itself, thou shalt give it unto the stranger that is within thy gates that he may eat it; or thou mayest sell it unto an alien; for thou art a holy people."

That is exactly like the feeling of a Brahmin in India to the present day, who may not eat certain things, but they may be given to the pariahs who do the dirty work of the village, or the butcher may sell the meat to an unwary outsider.

Verses 4 to 20 give lists of clean and unclean animals. According to MOSES an animal is clean which (v. 6) parteth the hoof and cheweth the cud," viz., (v. 4) "the ox, the sheep, the goat; the swine is unclean, (v. 8), because it divideth the hoof, yet cheweth not the cud." Similarly, (v. 7) the camel, the hare and the coney are unclean, for they chew the cud, but divide not the hoof."

Verse 11 says "of all clean birds ye shall eat," yet neither there nor in Leviticus xi is any list given of clean birds, but in both chapters [illegible] birds are forbidden as unclean.

Thus it is evident that MOSES intended the Hebrews to eat only animals which were vegetable-feeders, but [illegible] he was not a close observer or domestic animals in Egypt in his time were better fed than they are in India at the present day, for all Europeans who can afford it eat meat only from sheep belonging to mutton clubs, and poultry well-fed at their own bungalows, for *all domestic animals belonging to natives are scavengers*, and may be seen to devour all sort of sewage and garbage in and near villages and towns.

As no list of "clean fowls" is given, one cannot say if MOSES considered patridges clean or not, but they will in India eat carrion, for the writer has seen a covey of partridges feeding on a dead camel, the stench of which was overpowering.

In Leviticus, XI, 21—23, MOSES allows things to be eaten which no European would touch—"These ye may eat, of every flying creeping thing that goeth upon all four which have legs above their feet, to leap withal upon the earth; even these of them may ye eat, the locust after his kind, and the bald locust after his kind, and the beetle after his kind, and the grasshopper after his kind. But all other flying creeping things, which have four feet, shall be an abomination unto you."

MOSES does not seem to have observed that insects have six legs, not four legs, so what "other flying creeping things," he means cannot be guessed, but it is certain that in India at the present day the natives make no attempt worth mentioning to keep their dwellings or roads clean, but leave the scavenging to be done by oxen, sheep, goats, pigs, dogs, jackals, and all sorts of birds and insects, especially white ants, wasps, beetles, flies and mosquitos, of which the last two undoubtedly spread disease after touching sewage.

Some impecunious Germans maintain that it it is quite safe to eat meat infested with hydatids or trichinosis, if it is cooked at a certain temperature, but British subjects would prefer to avoid such diet, and insist upon eating only meat of animals which had been passed by a sanitary inspector of slaughter-houses and butchers' shops.

Even milk and butter must be inspected, with the farms and dairies where they are made, for these important products of the cow are of such unstable composition in a chemical sense, that they are very easily spoiled, while typhoid fever and other infectious diseases have been proved to be spread by milk, merely because the milk-cans were washed with water from a contaminated source.

Yet this milk and this water had no appearance, taste or odour to excite suspicion, so minute was the proportion of diseased products in them, but patients have died of this infection.

Therefore, if after death the raw-meat broth made from animals which have died of rinderpest is found to cure rinderpest, the *post-mortem* change is very remarkable, and is worthy of being studied.

Already people with weak digestion have been treated with raw-beef-juice for certain complaints, and have recovered, after all other treatment failed, so the serum ingestion treatment is only another step.

[illegible] not enough to give [illegible] broth made from flesh of human plague-patients, but why should we not try to cure plague by the broth of the flesh of plague-stricken rabbits, as plague is a bacterial disease, as well as rinderpest?

Rats are plentiful enough, and rabbits infected from plague-stricken rats would afford a broth not unpleasant to taste, and it remains to be seen whether the serum of those that recover has the same prophylactic property. Further experiment will of course lead to better results, and less crude ways of administering the remedy. So far no laboratory is required, but a godown with a few rats and rabbits; elaboration can follow.

The lactic theory will of course require more testing, but it might be tried on cows, or goats, or pigs, near the plague-camps themselves, under intelligent supervision, which is all that is wanted.

Observations should also be made by experiments on the flies in plague camps, to ascertain if infusions of flies caught on plague-patients, if applied to rats or rabbits would give plague to these animals. It is quite possible that infection may thus be carried, and if it be proved, it would be worth while to try if cattle in Africa can be protected from the much-dreaded Tsetse fly, which is so fatal to them, and which has caused recently so much mortality among the transport animals with our force in Uganda.

A very important address was recently given by Professor KOCH to the German Colonial Society on his return from German East Africa, in which he described the observations he had made in that territory. He found a study of *Texas fever in cattle* of great assistance in giving a key to the origin of tropical malaria. Cattle disease was transferred from one animal to another by the sole agency of that animal parasite the tick. (? Melephagus bovinus). He had been able to infect sound cattle with ticks taken from diseased ones; *moreover he had rendered cattle immune against Texas fever by inoculating them with the ova of ticks taken from diseased animals.*

Malarial fever was in many respects like Texas fever, and he had arrived at the conclusion that in the human subject, mosquitos played the part which ticks played in cattle disease. Professor KOCH found they were present where malaria prevailed, and where there were no mosquitos there was no malaria, as in a *certain small island* on the coast of German East Africa. He called attention to the circumstances that the natives there were proof against infection, and where natural immunity existed, there was hope of affording artificial protection. By microscopic examination of the blood the exact stage of malarial fever could be ascertained, a thing of great importance, for much depended upon the administration of quinine before the attack, or in its early stage. Doctors specially trained in bacterial observations and microscopy should be sent to Africa, West as well as East; and if science can only cope with malarial fever successfully, the conquest will facilitate the prosperous development of some of the most [illegible] in the world. What Dr. Koch says of Africa may be taken as equally true of India, where the deaths from malarial fever exceed those from all other causes put together, so it is to be hoped Government will excuse its best trained medical officers from routine duties and will depute them like Dr. Koch to special investigations, which are likely to prove far more valuable to the empire.

In connection with the action of ticks and mosquitos it worth noting that Badagas, Kurumbars, and other wild tribes in the Nilgiris, are very fond of honey, and when they find honey-combs they eat not only the honey, but also the immature bees in the cells, pupæ or larvæ, which they say taste like cream. They take the comb, regardless of the bees swarming round them, and though frequently stung, they feel no pain, as the stings are followed by no inflammation or swelling, as happens in ordinary people who do not eat bees.

The mongoose is supposed to have immunity from snake-bite, and it is not known for certain whether it escapes because the venom of the snake is lost in its fur when the snake tries to bite it, or whether the immunity is caused by the mongoose's habit of eating snakes.

But other animals without fur attack and eat snakes with immunity, *i. e.* pigs, kites, pea-fowl, the adjutant bird, and various other wild animals in the jungles, who share the snakes with their young ones, so the latter may be supposed to be immune against snake-poison very early in life. Moreover musk rats attack scorpions fearlessly, whatever their size, and devour them, while large black ants eat the remnants greedily, and will join in packs to hunt small scorpions, which they rapidly cut to pieces with their jaws

Snakes eat snakes, and spiders eat spiders, as most people can observe for themselves while DARWIN mentions, that the earth-worms have cannibal habits. In the south of India the belief prevails that a diet of earth-worms will cure rheumatism, and the natives in some places stew them for this purpose, putting them first in vinegar to make them vomit the earth which they have swallowed. The writer was induced to taste this stew once, and found it very good, tasting like shrimps. Some people are very fond of soup made of squirrels, or of guinea-pigs, and this is really very good when made like jugged hare. These animals are very clean feeders, and can be kept in hatches in the compound, providing an agreeable change of diet, much safer than hares or rabbits or partridges shot near native villages. The struggle for life is intense enough, as we all know, but were it not for the wise provision of nature detailed above, all living beings would suffer still more in trying to live. May this encourage us to observe nature more closely, and follow her guidance.

SEVERE LONG-STANDING GASTRIC AND INTESTINAL DISORDER OF REFLEX UTERINE ORIGIN, CURED IN TWO MONTHS BY THE USE OF THE UTERINE STEM.

By James R. Wallace, M.D., F.R.C.S.I.
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Member, British Medical Association,
Formerly Resident Surgeon, Eden Hospital for Women and Children,
Calcutta, etc.

In April last I was called to see an Anglo-Indian lady (Mrs. C——) aged 29, of fairly good physique, a widow, childless, who was suffering from vomiting, which took place regularly half an hour after meals every day, and which symptom was attended with severe pain about the epigastrium and abdomen during each menstrual period, and with diarrhœa and dysenteric symptoms superadded during this epoch. This condition of things had been present for nearly three years, that is during the entire period of her widowhood. She had for some time been under the care of Drs. Crombie and McConnell, and others, but beyond receiving a little palliative relief, the persistent post-ingestion-vomiting and the recurrent menstrual aggravation of this symptom and the attendant intestinal disturbance continued unabated. A remarkable feature in this case was the distinct absence of much emaciation, proving that while vomiting followed the ingestion of food by a short interval, there could not have been a complete emission of the gastric contents. The history of the case struck me as being peculiar, and I was strongly impressed with the noticeable aggravation of symptoms during the catamenial period. At the time of my visit I found that the patient was in the middle of two menstrual periods, and I could not discover any enlargement or tenderness of her liver, nor anything abnormal about either the stomach or the intestines to account for her sufferings. Enquiry elicited the fact that since her husband's death, about 3 years previously, her menstrual flux had become diminished in quantity and altered in colour, being more dark and clotted and lasting for three days only, instead of five. It was also observed that nausea and vomiting during this period were most persistent, whilst marked intestinal pain accompanied by frequent diarrhœic motions mixed with mucus and blood, and attended with much tenesmus, not only ushered in, but continued throughout the period of menstruation. Feeling convinced that the trouble I had to deal with was of a reflex uterine origin, I suggested an examination of the uterus and appendages *per vaginam*. This was allowed and I found as the result, that she had an anteflexed uterus and a stenosed cervical canal. I accordingly gave it as my opinion that the gastric and intestinal disturbance, though of such long duration, and of such a distressing character, treated as they had been by the most skilful physicians, and unscombatted as they were successfully by a large and varied stock of medicinal remedies and dietetic precautions of a well-studied order, were unquestionably reflex in character and utero-ovarian in origin.

[illegible] introduction [illegible] uterine stem [illegible] agreed to. [illegible] on the [illegible] of April I introduced a 2½ inch silver [illegible] stem. On the 15th of April the patient menstruated, the discharge was very free, there was little or no intestinal pain, there was some relaxation of the bowels but no tenesmus or other dysenteric disturbance. The patient vomited twice on the 1st day and once on the 2nd day of the flow, and after that there was no more nausea or vomiting for a week. The stem was retained *in situ* for 8 weeks, and during this period, vomiting took place about nine times, with an interval of 5 or 6 days or more, but there was no return of intestinal disturbance. Instead of diarrhœa, however, there was a tendency to constipation, and this was met by the daily injection of two pints of warm water, with which 20 grs. of boric acid was mixed. It is important to state that from the date that the stem was introduced, the patient, as advised, partook of an ordinary diet of meats, vegetables, fruits, puddings and salads. The only medicine administered during the period of treatment was an occasional dose of castor-oil emulsion with terebene. The patient was married two months ago, and is keeping perfect health.

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SOME FURTHER NOTES ON THE USE OF BROMIDE OF STRONTIUM IN EPILEPSY.*

By Antony Roche, M.R.C.P. Irel.,
Professor of Medical Jurisprudence and Public Health in the Catholic University Medical School, Dublin;
Examiner to the Royal University of Ireland.

In 1894, and again in 1896, I published some notes, with cases, on the use of the bromide of strontium in epilepsy. I have many of the cases then mentioned still under my observation, with a considerable number of others. Perhaps therefore some remarks founded on a more extended experience in the use of this bromide may be of interest to the profession. Unfortunately I cannot give the results in all my cases, as some of my patients communicated with me only by letter, and I am therefore unable to follow the course in all. In the majority of cases, however, I have been able to learn the results of the treatment.

I have not met any case in which the bromide of strontium given in the doses and method I will mention has failed to diminish the number of the attacks. In many instances there has been no return for periods extending to two, three, and even four years. Some of these cases may be considered "cured"—that is, that there will be no return of the attacks when the medicine is permanently left off. I cannot say definitely that this is so, for the reason that I always recommend the patients to continue the medicine, even though there has been no return for a long period. I do this all the more as I have not found the continued use of bromide of strontium to be followed by any bad consequences, and many of the patients have been taking 1 drachm daily without intermission for more than three years without any complaint. In this respect the strontium salt has an immense advantage over the potassium salt, which has frequently produced serious physical

*Reproduced from *The Lancet* by request.

and mental changes when continued for a long period. Moreover, patients taking bromide of potassium frequently suffer from intense depression. Several of my patients were obliged to leave it off owing to this; in fact, several expressed their feelings by asserting that they would rather suffer from the fits than from the depression produced by the medicine. I have not noticed this at all in those using the bromide of strontium. The potassium, too, is poisonous in large doses; the strontium is not. On this point I may quote one of the most recent authorities, Dr. DIXON MANN, who in the second edition of his excellent "Manual of Medical Jurisprudence" says that "strontium salts cannot be regarded as poisonous." I have myself given 3 drachms daily for weeks without any unpleasant symptoms. I consider, therefore, that the strontium salt excels that of potassium in being more efficient and in not being followed by dangerous consequences when it is continued over a lengthened period: and as it is not poisonous it can be given in as large a dose as may be required to control the attacks.

In my earlier cases, being influenced by the remark of BROWN-SEQUARD, that the combined bromides were more useful, I gave the bromide of strontium combined with one or more of the other bromides, but for a long time I have given that of strontium alone. I usually commence the treatment by ordering half a drachm night and morning in some vegetable tonic infusion. Should that dose not control the attacks, I rapidly increase it till I have found the quantity which will suit the individual case. I direct the patient to take 30 grains at once in those cases where there is any warning of the attack and to repeat this every hour if required. By this means I have no doubt the attack has been frequently prevented. I may repeat that in my experience in order to get the full benefit of the medicine I have found it necessary to give it in large doses and to continue it for a long period. Since my first communication several members of the profession have written to me saying that in their cases they have not found the same good results. I invariably find that in these cases the dose given has been too small and consequently that my practice has not been followed I need not say that each case requires to be studied on its own merits and any exciting or predisposing cause lessened or removed. I do not think it necessary to go any further into this question, as these notes are not upon the general medical or surgical treatment of epilepsy, but upon a special medicine, nor need I give my experience in the use of any other of the many remedies proposed. Many of these I have tried, but none have given me the same good results as I have found by the use of bromide of strontium.

I should say, however, as I have more fully explained on a former occasion, that I regard the question of diet as one of much importance. I direct my patients to restrict themselves to fish and vegetables, and I generally find no great difficulty in having my orders carried out. When the attacks diminish in number, if I am pressed to do so, I allow the more easily digested meats twice or three times in the week.

I propose to return to this subject in a subsequent communication and to give details of some of my cases.

EAR-ACHE AS A PRELIMINARY SYMPTOM OF LOCK-JAW.*

BY DR. LUKMAN-UD-DOWLAH,
Staff Surgeon, H. H. The Nizam's Medical Service.

IN persons suffering from Tetanus, ear-ache has often been found to be the first symptom of the disease.

The following three instances establish the truth of this :—

(I) A boy 19 years old, suffered from malarious fever for two months, and was for six days confined to bed from excess of Epistaxis. I was called in, and found him exhausted from loss of blood.

From physical examination, the heart and lungs appeared to be in a healthy condition. The liver and the spleen, however, were enlarged. There was swelling of the feet. The patient felt difficulty in speaking, and complained of nothing but general weakness owing to loss of blood. Internal and external remedies were applied, and measures for stopping the hæmorrhage were adopted.

This diminished the flow of blood, but did not entirely stop it, as it came on at intervals. After three days he complained of pain in both the ears, rather more in the right, which made him restless throughout the night. On examining the ear it shewed no sign, nor was there any pimple or inflammation or discharge of matter. On enquiry I learnt that the patient had never before suffered from ear-ache I prescribed the ordinary ear-drops, containing glycerine, morphia and cocaine. The next day I was informed that the patient could not open his mouth owing to great pain. When I visited him the second time there was no symptom of swelling in or about the ear; and the boy being asked to open his mouth, did so with difficulty to the extent of about two fingers' breadth. This, along with other characteristic symptoms, convinced me that this was clearly a case of Lock-jaw. Hence instead of treating the ear, I commenced the treatment for Tetanus.

The patient was kept so much under the influence of Chloral hydrate combined with Bromide of Potash that he was fully under its effect, except when medicine or food was to be given to him.

Although the day after I began the treatment, the jaws appeared to be rigid, yet, on the 3rd day, a change for the better was noticed, and by continuing the above medicines, in ten days the patient was able to open his mouth easily, while the ear-ache had entirely disappeared.

(II.) Was a girl 17 years old, who, under the supervision of a native midwife, was delivered of her first child, and on the tenth day was brought to me to be treated for fever. The third day after coming to me she complained of ear-ache which had made her restless during the night. Formerly her ear used to discharge matter. Thinking it was the same complaint, she asked for ear-drops. I used the ear-drops, and applied the extract of Belladonna and Opium with Glycerine to the part surrounding the ear. On the fourth day of her admission, that is, the second day after feeling pain in her ear, and the fourteenth day from her delivery, her jaws began to get rigid, and eighteen hours after this, all the symptoms of Tetanus became apparent. Her friends then removed her to be treated by *vaids*, and I heard that she died 48 hours after the symptoms of Lock-jaw had fully developed.

*Reproduced from the *Deccan Medical Journal* by request.

(III.)—A boy 13 years old, who had been accustomed to go about barefooted, had his right foot wounded by a piece of glass, and beyond tying it up with a piece of dirty cloth, he did not attend to it, and still walked about barefooted. He came to me limping, and while asking me for ointment for the wound, complained to me of feeling pain in the ear. On inspection I found the wound to be in the middle of the plantar region, an inch long, and oblique in direction. The appearance was of a superficial punctured wound. It was discharging blood and pus, due to the patient's carelessness. The wound was dressed regularly. On the fourth day after this, the boy was brought to me in a dhooly, with all the symptoms of Lock-jaw. The treatment employed was the same as in the case No. 1, but it proved ineffectual.

THE CONCLUSION.

From the facts in the foregoing cases, the following conclusions are drawn :—

Case No. 1 shews that after an excess of Epistaxis, the ear-ache led to the symptoms of Lock-jaw.

In case No. 2 and 3, though the patient's ear-ache was an old complaint, yet it proved to be the first symptoms of Lock-jaw. The opportunity for the preliminary treatment afforded in case No. 1 was not given in these two cases, as full symptoms of Tetanus developed before treatment was sought. It would therefore not be wrong for the physician to regard ear-ache as one of the preliminary symptoms of Lock-jaw.

DIAGNOSIS.

The ordinary ear-ache mostly affects one ear only. On the other hand if ear-ache is a preliminary symptom of Lock-jaw, it affects, more or less, both the ears. In the case of ordinary ear-ache, inspection generally shews the organ to be abnormal, *viz.*, there appears either a pimple, discharge of matter or inflamation, which would not appear when ear-ache happens to be a first symptom of Lock-jaw.

In the latter case, along with ear-ache there is commonly felt a rigidity of the jaws, which would not be perceptible unless the physician carefully examines his patient. If, however, a patient's ear is affected by some local ear disease and, at the same time, the ear-ache appears as a symptom of Lock-jaw, the case becomes complicated. The physician, in order to make a correct diagnosis, will have to be careful in noting the peculiarities in the patient's condition, such as hæmorrhages, epistaxis, &c. of a female patient in the lying-in-state, wounds or other injuries, with other local circumstances, or effects of cold or damp, also whether the patient is predisposed to the disease. How ear-ache appears as a symptom of Lock-jaw may be thus explained :—As in the case of Tetanus, the spinal chord and the nerves are affected, and consequently spasm arises in the muscles. Moreover, it has often been observed that trismus precedes tetanus, but in some cases preliminary spasm is met within the muscles of some part or other of the body. Thus either a finger gets stiff, or some particular muscles shew contraction. Consequently, the minute nerves distributed to the muscles interior of the ear *viz.*, the tender Tympani and Stapedius become affected, and hence arises the pain. It is also possible that in the case of trismus when the muscular fibres are affected, the internal nerves of the ear are likewise sympathetically affected.

Indian Medical Record.

1st December 1898.

THE MALARIA PROBLEM IN THE LIGHT OF EPIDEMIOLOGY.

A PAPER of particular interest at the present moment, from the pen of Dr. ANDREW DAVIDSON, appears under the above title in the pages of the *Edinburgh Medical Journal*. It was read by the author before the British Medical Association, 27th July 1898.

This paper is an earnest attempt, "to enquire how far the mosquito hypothesis in any of its forms, or in some possible modification, can be made to harmonise with certain well-established epidemiological facts which will find their explanation when the true solution of the problem has been attained."

The author in the first place points out that there are three theories at present engaging attention, all of which implicate the mosquito in the spread of malarial fever.

First we have MANSON'S hypothesis that the plasmodium is a normal parasite of the mosquito or of some other suctorial insect, "passing from mosquito to larva, and from larva to mosquito, in never ending series" The parasite is supposed to gain access to man indirectly, thus the infected mosquitos die and contaminate soil or water with the parasite, which enters the human system by the medium of water or dust.

BIGNAMI'S theory is that the malaria germ, present in malarious localities as a soil parasite, is inoculated into man by the mosquito and allied species of insects.

KOCH believes that man is infected by inoculation, as the Texas fever in cattle is transferred from one herd to another solely by the agency of the tick, so he supposes, is malaria propagated. The mosquito, he says, "receives the parasites, transmits them to its eggs and the young larvæ, and only the next generation is able again to infect with malaria parasites."

The epidemiological facts which Dr. DAVIDSON discusses in connection with these three theories are the following—(1) Epidemics of malaria resulting from soil disturbance ; (2) the invasion of countries and districts previously free from the infection ; (3) the extinction of malaria in countries where it formerly prevailed ; (4) slow-spreading epidemics of malaria, in which, as the disease advances, it dies out in the region just visited ; (5) local epidemics caused by the formation of artificial marshy foci , (6) Ship malaria ; (7) the prevalence of malaria in northern latitudes at the season of the year when the temperature is under the freezing point, and when insect life is in abeyance.

The literature pertaining to the phenomena noted under 1, 2, 4, 6, 7, is of such an unsatisfactory nature, and so lacking in precision, the phenomena are so imperfectly understood ; while their claim to be regarded as *facts*, has been shown in so many instances to be founded upon faulty or fallacious observations, that, we do not think much advantage can be gained by the attempt to bring them into harmony with theories that are equally nebulous.

[illegible] (4) and (5) are [illegible] types, they are simple and [illegible]able; how are they to be reconciled to the mosquito theories ?

Talking of the disappearance of malaria from many parts of England and Scotland, Dr. DAVIDSON asks, "Has the drainage of marshy land led to the disappearance of some species of gnat or other suctorial insect from these localities ? There are still, fortunately for science, some malarious districts in England, and it would be of extreme interest to ascertain whether any species of gnat are present in these which are absent from non-malarious localities. It is said that there are nine species of gnat in Great Britain. Are any of these peculiar to malarious districts ?"

The suggestion here thrown out is all the light Dr. Davidson has to throw upon this question. So that what appears to be one of the simplest prpblems in malarial epidemiology is still unsolved. What is even more curious is that the key to the riddle is actually in England, but no one appears to be looking for it. In the meantime we read of Royal Commissions rushing off to search for it in tropical Africa, where all the conditions are certain to be much more complicated.

Dr. DAVIDSON does not allude to the fact that there are plenty of mosquitos to be found in parts of England, but this is certainly the case about Plumstead and Southampton.

Under (5) he says, "we have also examples of quite local and temporary outbreaks, clearly dependent on the establishment of marshy foci in some locality where malaria is little in evidence or altogether absent."

He fits these into the mosquito theory as follows.—"If the plasmodium is a normal parasite of insects which live in marshy localities, the creation of a marsh may be supposed to lead to the immigration into such locality of an insect previously absent from it. Up to a certain point, therefore, these local epidemics are explicable on this hypothesis, but the sudden appearance of one or more plasmodium-nursing insects in localities from which they were previously absent, and the rapid infection of an entire community, present difficulties not to be ignored."

From this it would appear that what Dr. DAVIDSON has to tell us concerning two of the simplest and best known facts concerning malaria, is most unsatisfactory, and adds absolutely nothing to our knowledge of the subject.

Dr. DAVIDSON is well-known as an ardent believer in what he calls *epidemic* as distinguished from *endemic* malaria, it is his constant regret that there are so few examples to quote from ; in the absence of any more modern data he is very fond of the great Mauritius epidemic of 1866-68, and of a less known epidemic which occured in Sweden in 1846.

Regarding these epidemics and other sudden outbreaks of malaria which he attributes to soil-disturbance, he mentions one point of great importance in connection with the mosquito hypothesis, it is, that in all these epidemics every form of the disease is present, and that the appearance of the different types is regulated by the seasons.

Under the head of soil-disturbance he says, "A well known instance of the same kind is that recorded by WENZEL, of the severe epidemic that broke out during the construction of the [illegible] on the [illegible] of the North Sea. I mention it, because there [illegible] in connection with it, as in many other epidemics of the same kind, a point which cannot at present be readily explained in MANSON's hypothesis. It is this [illegible] there is not only a corresponding increase in the average severity of the form of sickness in the summer [illegible], but also a preponderance of the shorter rythm, and an approximation of the continued type ; while with decreasing intensity in the colder months there is a corresponding lengthening of the rythm to tertian and quartan. Upon the assumption that the infection is caused by the setting free of long imprisoned insect-borne germs from the soil, it is difficult to explain why the parasites of the short-rythm fevers should monopolise the hot season, and those of the tertian and quartan the cold season respectively. They are "shaken-out" of the soil, hypothetically, at the same time, yet the different parasites do not give rise to fever as they are brought to the surface, but each type appears in its regular season just as in endemic and epidemic fever not arising from soil-disturbance."

On the subject of soil-disturbance as a cause of malaria, Dr. DAVIDSON alludes in a foot-note to a paper which appeared in this journal on the 16th December 1897, by Surgeon-Major MOORE. This paper contains a large amount of evidence to show that the malarial fevers which ravaged Hong-Kong in its early days were not due to soil-disturbance, the contrary view has been strictly maintained both by DAVIDSON in his "Geographical Pathology" and by MANSON, in his Tropical Diseases." It is curious to note that in the paper we are discussing, Dr. DAVIDSON makes no allusion to Hong-Kong as an example of soil-disturbance malaria. He is satisfied with the less known cases of Panama, Brazil, and Mauritius.

Dr. DAVIDSON's paper, to which we fear we have not done justice, is a much wanted and very valuable contribution to present day malarial literature. It is however mainly speculative and appeals to us less on this account.

It is not surprising to find, that having weighed the three theories referred to and found them wanting, that he should be ready to still further complicate the situation by adding a modification of his own.

His views, somewhat abbreviated, are as follows :—

The malaria parasite is not dependent on man for existence. It meets him, to his sorrow, in regions previously uninhabited. This fact in its history is adequately accounted for on the supposition that the plasmodium lives and multiplies in the soil of malarious localities, and finds its way into the system in water or air, or, as BIGNAMI suggests, by inoculation, the virus being conveyed from the soil in which it is present by the agency of mosquitos or other insects. But on this theory which implies that man is merely an accidental host of the plasmodium, it is difficult to explain how a soil parasite should adapt itself so perfectly to life in man, should develop and multiply in the system, and become latent there until conditions favour its renewed activity. This perfect adaptation to its human host is not what one would expect in a parasite whose normal life-cycle is in the soil. The theory that the parasite is removed from man by the mosquito, in which it undergoes development, and in the second generation is able again to infect man by inocu-

[illegible] description of how it exists and maintains itself in the environment, how disturbance of the [illegible] explains or why the disease is absent from countries where mosquitoes abound.

We have no difficulty in accounting for the presence of malaria in uninhabited regions, on MANSON'S hypothesis that the plasmodium is a normal parasite of the mosquito. This mosquito-bred plasmodium is hypothetically there to infect him as soon as he intrudes into a malarious region. But this theory is not without its difficulties. Man is clearly not an alternative host of the parasite, in the sense that it can run in him the same cycle as it does in the mosquito, and can thus take the place, so to speak, of the mosquito in relation to the parasite. Man is the alternative host only in the sense that the parasite runs one part of its cycle in him, the other and complementary part in the mosquito. May we not rather conclude that man and the mosquito are both necessary for its propagation, its cycle being from man to mosquito and from mosquito to man in never-failing series? There is no evidence that it can complete its life-history in the mosquito alone. Are we not therefore justified on the ground of analogy, in assuming that the malaria parasite also requires two hosts for its continued existence? Should this view, that the malaria parasite runs a double cycle, and that other animals may take the place of man as its host, prove correct, as I think it will, some of the difficulties which at present surround the etiology and epidemiology of malaria would be lessened or disappear.

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QUACKERY AND QUACK ADVERTISING IN INDIA.

II.

We will now cast a glance at some of the marvellous cure-all concoctions which Mr. Kaviraj NOGENDRA NATH SEN GUPTA so lavishly advertises all over India, and for which, after the usual fashion of quacks, all sorts of miraculous and impossible virtues are claimed.

In the first place there is the Keshranjan oil, the same that was sent to the Lieutenant Governor of Bengal, whose Private Secretary's letter in acknowledgement has been turned into an advertisement to gain notoriety.

It is claimed for this oil that "It cures baldness, removes dizziness, debility of the brain, melancholia, short sight, weakness of body, and of memory, vertigo and other similar maladies." Incidentally we learn that "if the hair is diseased, it cannot suck the neuro-vital fluid that keeps it in proper order."

A marvellous oil indeed! but why the advertiser should imagine that Sir JOHN WOODBURN was in need of it we are at a loss to know. *Difficile est satiram non scribere*, so we will only say that it is not a delicate compliment to assume that the ruler of Bengal suffers from any of the derangements for which it is said to be a specific.

Wonderful as the Keshranjan oil is said to be, it appears to sink into insignificance when compared with the Himasagara Taila, this we are told is the best oil among all the Ayurvedic medicines, and truly it would be if we could believe only a moiety of what is said about it. We are told that "it removes giddiness of the head, headache, heat in the head, unsettled condition of the mind, forgetfulness, madness, palpitation of the heart, nervous debility, night dreams, and all other diseases arising from disordered mind."

The name of "Bhootes Shodhita" is given to what claims to be a specific for leprosy. In the usual strange and unscrupulous style, Mr. K. N. N. SEN GUPTA does not hesitate to say, "We have tried it in innumerable cases with great success and can safely recommend it." It "will remove all complaints in connection with leprosy from the earliest stage of impurity of blood to the last stage of putrefaction of muscles and flesh."

What hope is there for the unfortunates upon whom such human vultures prey?

Another good sample of unscrupulousness is found under the head of "Panchatikta Batika, or Anti-malarious pills" which are advertised as "the specific for every variety of malarial disorder." The author does his best to turn the people against the use of quinine, and to nullify the attempts of the Government to bring it within the reach of all.

Of the users of quinine he says, "But, alas, they do not know what harm they do themselves! Quinine is thoroughly unsuited to our constitution; it checks fever no doubt, but poisons the whole system and ruins health and shortens life."

To give these views some appearance of truth he has the impudence to quote certain European authorities, this needless to say he does in the most misleading way, and the opinions thus travestied are the more dangerous as they are lies with a foundation of truth.

Thus GARROD is quoted as saying. "In large doses, it paralyses the heart causing convulsion and death." Above the name of Dr. STILLE we find, "very large doses may produce blindness." These are samples of the way in which these impostors turn the sayings of others to their own advantage. It is infamous that anyone should travel on such dark and dishonest paths to the ruin of his fellow-man.

We have in quinine a drug recognised by the whole scientific world of medicine as of well proved efficacy in the treatment of malaria; and here we have a Kaviraj trying to rob his country-men of its benefits, and boldly proclaiming all over India that it causes blindness, convulsions and death.

The pamphlet we are discussing appeals to the more ignorant classes, how are they to distinguish between the true and the false?

In all quack productions there is a class of advertisement which verges upon, if it does not overpass, the boundary line of morality and indecency. "The Ayurveda Sangraha" is no exception. "Nervous Debility" stands out prominently and a medicine bearing the name "Ratibilasa" is represented as a certain cure. We read as follows "Excessive indulgence, etc, etc; drinking, and many other irregularities of a similar kind * * * bring on nervous debility and finally loss of manhood." Further on, "This medicine within a short time removes debility, nervous prostration, premature failure of power resulting from excesses and indiscretions in early life."

We are told that "The great deity Shiva was the discoverer of this efficacious remedy"

"Somanatha Rasa" we learn, is also "a great Shastric medicine for Spermatorrhœa * * it diminishes involuntary seminal discharges, it has the most potent aphrodisiac power."

"Amritaprasha Ghrita" is represented as another cure for nervous debility. "Pramoha Ripuka," is a "specific for diseases of Indiscretion," "it revives the languishing and drooping spirits of the despondent and makes conjugal life happy" it works miracles the author says, "in the most obstinate and given up cases of gonorrhœa, etc. etc."

Again we come across some stuff called Makaradhwaja which appears calculated to do almost anything. It is said to be a compound of gold, mercury and sulphur and to combine in a truly miraculous manner all the virtues which eager imaginations have ever ascribed to each of the separate ingredients. We are not surprised to learn that it is represented to cure debility, typhus and typhoid fevers, gleet, gonorrhœa, complaints of women after delivery, weakness of the brain, catarrhal complaints, whooping cough, etc. It is harmless as mother's milk to the new born babe in one column, and stands out as a potent aphrodisiac in the next.

Another somewhat anomalous compound is "Sanjiban Khadya or Infants and Invalid's food." This we read "dissolved in diluted cows' or goats' milk is the best substitute for mothers' milk." It may be given to infants "even when they are on the mother's breast," yet at the same time the wonderful food is said to be highly efficacious in such a jumble of diseases as indigestion, acidity, liver complaints, spleen, fever, gonorrhœa, hæmorrhage, consumption, asthma, diseases of the ear, kidneys and mouth, nervous debility, depression of spirits, diseases of women, leucorrhœa &c.

The state of the compiler's brain at this point appears to have got as mixed and marvellous as many of his wonderful quack remedies.

In the questionable class we have the "Shivada Batika" advertised as a specific for involuntary emissions.

Of course we find special remedies devoted to the diseases of women, and we have no doubt that many have been foolish enough to respond to the plausible advertisement of Mr. SEN GUPTA. We need not enter into particulars about them, sufficient to say that like the rest they undertake to cure the most extraordinary medley of diseases and to be infallible; which is alone sufficient to stamp them as cruel and dangerous lies wantonly spread abroad to prey upon the weak and ignorant.

No list of quack medicines would be complete without absolute specifics for consumption, epilepsy, syphilis, cholera, and here we find them in plenty

But of all the wonderful things mentioned, we think the palm is borne off by the "Siddha Makaradhwaja" "This peerless panacea," we are told, "descended from heaven," "the great god Shiva presented it to the Siddhas," and the author states that, "it is the highest compensation balance in the gigantic and most intricate machinery of the human organism; so that a man never experiences the failure of nerve power even when he celebrates his centenary. It is the only solace of the dying and the decaying."

It is difficult to believe that advertisements of the kind we have been reviewing, can appeal to or mislead any one; yet it is not only the ignorant who fall into the hands of swindlers of this description. It is impossible to gauge the weakness and credulity of human nature when tormented and exhausted by sickness; anything that promises relief, no matter from what quarter the promise comes, is eagerly sought for, and it is the crowning opprobrium and crime of these advertising quacks that, day by day, thousands out to deceive and betray these supplicants in their distress. That it should be possible to do so with the sanction of the Government of the country is a disgrace to modern civilisation.

It only remains to bring to notice the names of a few medical men who have been guilty of unprofessional and infamous conduct in presenting testimonials in favour of these quack remedies, as advertised and duly acknowledged by Mr. SEN GUPTA in his "book."

The first name we come across is that of GOPAL CHANDRA MUKERJEE, B.A., M.B., Medical Officer, Katihar, next JOGENDRA NATH GHOSE, Assistant Surgeon, Teacher of Midwifery, Campbell Medical School, who writes, "My dear NOGEN, The "Mahamash Taila" which you have sent for my use, wonderfully acted me, (sic) please send per bearer one phial of the same and oblige."

We have from time to time said a good deal about the standard of education in the Indian Medical Schools, if this is a fair specimen of the teachers, what must the students be like? It certainly does not speak well for the Campbell Medical School that the teacher of Midwifery should express such a partiality for quack remedies, and we trust that the attention of the authorities will be directed to the matter.

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THE THIRTIETH ANNUAL REPORT OF THE SANITARY COMMISSIONER FOR BENGAL FOR THE YEAR 1897.

DISEASE AND DISEASE CAUSES.

THE Bengal Sanitary Report for the year 1897 is very like its predecessors, a volume of considerable size It contains 200 and odd pages and a portentious array of figures; the labour in compiling it must be enormous, and it is no fault of those engaged in the task if the result is distinctly disappointing

An abundance of figures; a few more or less obvious or plausible explanatory notes; it passess muster, and is even accepted with flattering terms by the non-professional critics of the government to which it is addressed. The Sanitary Commissioner heaves a sigh of relief and the fruit of his labours is discussed with due solemnity by half the lay press of India.

We yield to none in our estimation of the immense value of statistics, when they are accurate in all the particulars in which statistics of disease should be accurate; but for masses of figures, which in most cases do not even claim to be accurate and which are often far from being even approximate, we have no respect at all. Of such figures the Report before us is mostly compiled.

It is obvious that all comparisions, deductions, and inferences drawn from such figures must be misleading, and that to take them too seriously is to fall into a grave error.

This report is of course compiled from the figures and reports sent in by the Civil Surgeons of the different districts, and this being so we should like, and indeed expect to see considerable prominence given to the opinions of these officials. In this we are disappointed for their opinions are rarely quoted.

It is only natural to presume that the civil surgeon is the best authority upon the health conditions of his own district, the unusual prevalence of disease, or the reverse, and the causes of increased or lessened mortality &c; and it is also natural to presume that had any of these officials communicated anything of importance or

of interest on any of these points, that the Sanitary Commissioner would only too gladly have availed himself of the opportunity of giving it prominence in his report.

The absence from the Report of any interesting communications of the nature indicated inevitably leads us to the conclusion that the Sanitary Commissioner received but little assistance from the different civil surgeons, and that but little attention was paid by them to the various intricate problems relating to disease amongst the native populations of Bengal.

We can safely say that, for all the light it sheds upon the different diseases which prevail in Bengal, their nature, origin, cause, and effects, the Report might just as well have never been written.

The Sanitary Commissioner in his office is bewildered by a complex labyrinth of figures which he is called upon to explain and elucidate. In his desperation he has hit upon three clues, (1) the famine or scarcity, (2) the short rainfall of the previous year, (3) improper food due to famine or scarcity. These clues are in the most marvellous way made to answer every purpose and to overcome all difficulties.

We may pause here to notice the explanation which the Civil Surgeon of Faridpur has put forward to account for the excessive mortality from "Fever" which occurred in his district. He says. "It is not confined to any particular locality, but visits almost every homestead in the district, which abounds in numberless bhils and swamps. All the conditions necessary for the production of malaria are to be found here in abundance, and to these may be added another factor which is every year gaining ground. I mean the steeping of jute in every available pool or stagnant water. There is hardly a village, hardly a house which does not go in for this trade and the result is that not a village is to be found which is not surrounded by stagnant water of a very objectionable smell, thickened and turned black by repeated steepings of jute."

This idea is repeated, without comment, by the Sanitary Commissioner, so we are left to puzzle out as best we can why jute steeping should cause fever. It is hardly necessary to dwell upon the want of logic in a man who tells you that *all* the conditions necessary for the production of a disease are present, and yet adds another factor, the important thing is that he has started what he perhaps thinks, and what has certainly been accepted in more than one quarter as a new idea, that the steeping of jute is the cause of fever. But how?

Is it suggested that the people drink the thickened, blackened and offensive water? We think not, for the drinking of impure water is so often credited with being the cause of disease, that, if this was the idea, it would most naturally have come under the head of impure water supply and the jute only incidentally alluded to as the cause of the impurity; whereas it is distinctly stated that the jute steeping is the cause of the "fever." For the same reason we acquit the Civil Surgeon of putting the blame upon the saturated condition of the subsoil naturally brought about by the abundance of stagnant pools.

From the evidence of his report we believe that he attributes the excess of "fever" to some specific action on the part of the jute, some poison we presume which is set free by the process of steeping.

The disadvantage of having a professional Report criticised by a Civilian who is quite unacquainted with the technical subjects of which it treats, is well exemplified by the remark of the Officiating Secretary to the Government of Bengal on the above.

"This" he says "is a striking opinion. The practice to which unhealthiness and mortality are here attributed, is not peculiar to Faridpur, and the Lieutenant-Governor will be obliged if the Sanitary Commissioner will draw the attention of Civil Surgeons in all jute-districts to these figures, and invite them to consider the effect on the health of their districts of the practice in question."

The opinion is certainly striking, and the comment on it also, but only we venture to think from the crass ignorance displayed in them both.

The idea that the steeping of vegetable fibre was a cause of malaria is no new one, on the contrary it is so old that it has been almost forgotten, and its reappearance amongst us causes us a start of surprise, not unmixed with amusement.

A vast deal of ink and paper was wasted in thrashing out this very question years ago, and in France and Italy where the belief was once prevalent, it has so long been rejected and cast into the limbo of forgotten and discredited theories, that there appear to be people now who have never even heard of it.

We can sympathise with the Sanitary Commissioner and the Civil Surgeons of other Jute districts, in being called upon to discuss a question which was decided in the early half of the century.

Vital Statistics.

The population of Bengal is stated to be 71,069,617. The birth-rate for 1897 was 36,94, and the death-rate 32·94, For the year 1896 the birth-rate was 38·03 and the death rate 34·17. Thus both the birth and death-rate were lower in 1897 than in 1896, the former by 1·09 and the latter by 1·23.

The decrease in the birth-rate, such as it is, is attributed to famine and scarcity which prevailed more or less generally from October 1896 to September 1897.

Now taking the 15 famine districts, as given in appendix V, we find that in five of them the birth-rate increased instead of diminishing in 1897, while in the four districts noted as scarcity districts, it increased in two and decreased in two.

If we compare 1897 with the average of the previous five years we find, that the birth-rate increased in 8 of the 15 famine districts and in 3 out of 4 of the scarcity districts, so that, however right he may be in his contention that famine was responsible for the lowered birth-rate, the figures are not quite as conclusive as they might be.

Owing however to the admitted inaccuracy in registration, the variation in the inaccuracy from year to year, and the large margin of error which presumably exists in the estimated population, we do not consider the matter worth pursuing seriously. We would on the contrary class the statistics in this Report amongst those which may be made to prove anything.

On the other hand it strikes us as being curious that a condition of famine and scarcity that is sufficient to lower the birth-rate, should at the same time be accompanied by a decrease in the death-rate.

It appears however from the explanation that while famine and scarcity may be permitted to exercise their influence on the birth-rate, that when it becomes a question of death-rate the meteorological conditions are of prime importance.

The general lowering of the death rate was, we are told, due to the fact that the previous year 1896, was an abnormally dry one.

Some places however did not conform to this rule, but on the contrary showed an increase in the death-rate, the explanation given is that such places suffered abnormally from Cholera or "Fever;" the abnormal prevalence of cholera again is said to have been caused by the people having been reduced to consuming improper and unwholesome food, in other words it was due to the famine and scarcity which led to such a necessity.

As compared with 1896 there was an increase of death rate in 6 of the 15 famine districts in 1897. And as compared with the average of the previous five years, there was an increase in 8.

The whole of the large and important question of the etiology of disease in Bengal appears to be summed up in the following bald and empty statement "It will be seen that the mortality from cholera, dysentery and diarrhœa and other causes was, as usual, much higher in towns than in rural areas, while "fever" was more prevalent in the latter. The crowding together of people in towns with its attendant evils, and the absence of proper drainage and the want of good drinking water in rural areas, explain these facts."

This is the very A.B.C. of sanitation, the trite commonplace of the causation of disease. "It needs no ghost come from the dead to tell us that."

But he who desires further information need not seek for it in the 30th Annual Report of the Sanitary Commissioner of Bengal.

We will discuss some other points of interest in the Report in our next number.

THE DOCTOR AND THE STATE

Dr. Robert Farquharson, M.P. Chairman of the Parliamentary Bills Committee in an address to a Branch Meeting of the British Medical Association spoke some encouraging words concerning the growing interest of the State in medical matters, and the awakening in the minds of the profession of its position and influence and of its duties to the State.

The subject is one which becomes more important from day to day and in which, to their own great benefit, medical men are becoming more interested. The time has gone by when the duties of practitioners were considered to be of a purely private character and strictly limited to such questions as might arise between their patients and themselves.

The medical profession has a great future before it, if not exactly in politics, at least in the conduct of public affairs. The great advances that have been made, the way in which medical science has spread its boundaries in every direction, demand that our leaders should be ready to, at times, quit the consulting room, and take their places in the assemblies which rule the country.

Medicine has now become an important governmental craft, and no nation can afford to neglect the advice of its physicians.

"I must talk to you for a few minutes" Dr. Farquharson said, "about public affairs, the relations of medicine to the State, and of us to it, of the influence we have or might have, and the value of a great association like this in binding us together into that compact harmonious whole, without which we can accomplish nothing."

"I am very glad to see that our great corporations and the General Medical Council are beginning to press forward in public life, and that they are now being consulted by State departments in matters of hygiene and social legislation. To our medical parliament has been entrusted the duty of framing regulations for the construction of a Midwives Bill. The College of Physicians spoke out with good effect on the subject of the terrible ravages of syphilis in India, and I understand that the vague and mysterious body which attracts some awe-stricken attention under the name of the Privy Council is in occasional communication with our professional leaders. The Local Government Board ought to be the head centre of everything that concerns public health, but it is underpaid and undermanned, and its usefulness is seriously hindered by the comparatively subordinate position which it holds—and why the Home Office, which regulates little more than law and order and factory legislation, should have a full-blown Secretary of State at its head, whilst the bureau to which is confided all our sanitary legislation, all water questions, and the whole of local government should merely rank alongside the Board of Agriculture, and Dover House is an anomaly which fairly defeats my limited powers of comprehension."

"Our constitution is broad and democratic, we appeal to a wide constituency, and we have planted in every corner of the United Kingdom centres of light and leading, which should illuminate, and instruct, and convince. Out of the 35,000 medical men in these islands nearly 18,000 belong to the Association, and our Branches spread and ramify everywhere, from Caithness to India. What an organisation this is for concentrating and co-ordinating the great body of force and influence which we might and do possess!"

Dr Farquharson mentions that we are democratic. As things are at present the medical profession is of necessity democratic, we are a rising body fighting for our recognition, our proper position and share in the government of the country. We are fighting not only for our own rights but for those of others. We are fighting for the health and wellfare of the people, that they may have pure water to drink, unadulterated food to eat, proper houses to live in, proper treatment when they are sick. We are fighting to preserve them from the ravages of epidemic diseases, and from falling the prey to the insidious wiles of unscrupulous quacks who trade upon their superstitions and ignorance.

In most of these contests we find ourselves opposed by time honoured prejudices and too often by the weight of the conservative capitalist.

No medical man who puts the interest of his profession before all else, can be anything but a democrat. Many it

in true partnership themselves that they are Tories or Liberals, but this [illegible] is the result of an inherited attitude of mind, the antithesis that has long been accustomed to regard medical matters as things apart, relegated to the privacy of the consultum and having no connection with public affairs.

Medical men have only to open their eyes to see that this attitude is no longer in consonance with the spirit of the times. *Educate Medicine!* is the watch word we must all carry in our hearts.

Dr. FARQUHARSON shows us what we can do. "By our organised pressure," he says, "we can educate the public mind and force the questions in which we, as custodians of public health, are specially interested, well to the front, and give them a chance of being picked out from among their competing rivals for early consideration and treatment; and then each of us can do something in the way of missionary enterprise. For, unhappily, there is much to be done. Quackery is still rampant among us and smart people and "society ladies" delight in irregular practices of all kinds.

From the Peculiar People to the nebulous metaphysics of the Christian Scientists and their appeals to the mesmeric hysteria of the weak and credulous is not a very long step, and cures and secret remedies still deplete the purses of those curious types of twisted intellects which our higher education seems to produce'

We want a Bill which shall make it illegal for anyone to treat disease for gain, without being a properly registered practitioner.

"But in order that we can more effectually carry out our crusade and permeate the public mind effectually with our views, it is above all things necessary that we should take some part in public life, even at the cost of a little personal and pecuniary sacrifice.

"There has lately been, I am glad to say, much more interest taken in the House of Commons in matters medical."

"Sixteen years ago Sir WALTER FOSTER discoursed eloquently about the political powerlessness of the medical profession, and I fear that things are not a great deal better than they were then, except that he and Sir Wm PRIESTLEY now sit on the green benches, and for the first time in the memory of man, a registered medical practitioner, in the honoured person of Lord LISTER, has entered the sacred enclosure of the "other place." What we have to do is, first, to learn our power and then to use it. Next try to agree among ourselves, study unity and concentration."

Such is the prospect which Dr. FARQUHARSON holds out and some of the advice which he gives, and we trust that each member of the medical profession will lay his words to heart.

THE LESSONS TO BE LEARNED FROM THE DECLINE OF THE PLAGUE IN BOMBAY.

THE decrease in the mortality from plague in Bombay city which set in about the middle of October still continues, and leads to the most hopeful expectations. The decline is steady and has now lasted for over four weeks, the daily death-rate has fallen to eight, and altogether, if there is no fresh awakening of infection, there appears to be every prospect of Bombay seeing the end of its third epidemic in the course of the present month.

The following figures show the gradual and steady falling of mortality.

	Plague deaths.
Week ending 4th October ...	243
11th „ ...	240
18th „ ...	150
25th „ ...	109
1st November ...	75
8th „ ...	62

From another source we find that for the week ending November 11th the deaths were still further reduced to 62. While the numbers of daily deaths returned was, Nov. 12.—10 deaths; Nov. 13,—9 deaths; Nov. 14.—4 deaths. Nov. 15,—8 deaths; Nov. 16.—5 deaths.

All this looks exceedingly well, and when compared with the two previous epidemics goes far to justify the brightest prognostications. The present epidemic, on the 15th November, was in its 22nd week, and the number of deaths attributed to it was 2,800. Each of the preceding epidemics raged for nine months and accounted for 20,000 and 22,000 people respectively.

It is evident that for some reason or other the present epidemic has aborted, but the reason for its taking this course is unknown. It began earlier in the year, and at one time the gravest fears were harboured that it would surpass in extent and severity its two predecessors These fears have however proved groundless.

We have evidently much still to learn, and to unlearn also, about plague and its epidemics That the cold season of the year was particularly suitable to its ravages was one of those things which our oracles and so-called experts were never tired of insisting upon. In spite of this, we have always maintained that this opinion was based upon insufficient evidence, that it was altogether unworthy of credence, and in fact it might be classed with that other idea, now perhaps obsolete, that plague never travelled from west to east but always in the opposite direction.

We have constantly shown that there was nothing to connect the course and spread of plague in this country with meteorological conditions, but still the dread of the cold weather hangs over all the responsible officials, and in Calcutta assumes the tangible form of an expensive plague establishment being kept up in anticipation of the expected and often prophecied cold weather recrudescence.

The experience of Calcutta and of the present Bombay epidemic are strong arguments on the other side The so-called plague in Calcutta disappeared at the very advent of the cold season, and in Bombay, an epidemic

which [illegible] out at its very worst.

[illegible] of the almost [illegible] pestilence that plagues [illegible] independent of [illegible] conditions and that [illegible] may be the [illegible] course of its [illegible], they are not to be [illegible] by hot and cold weather theories.

The laws of plague have still to be elucidated and in the dark as we are at present, we can only agree with those authorities who tell us that it runs a regular and predestined course, which all human efforts are powerless to check or perhaps even to modify.

We used to hear a lot about *stamping it out*. It was at one time a favourite catchword with all plague officials, they know better now and the pet expression has departed from their reports.

The most vigorous action on the part of the Bombay Government failed to have any appreciable effect upon the previous epidemics, while it had the ill result of interfering with the social conditions of the people and of wearing out their patience.

Now curiously enough when the most severe of the measures, which were considered an absolute necessity at first, have been abolished and while others have been modified and pared away to an almost invisible tenuity, the plague quietly takes it into its head to depart.

All these things are strange and inexplicable paradoxes to the modern sanitarian with his shibboleth of isolation, segregation and disinfection.

So let it be! In the future we may hope to know all things.

While Bombay city is settling down into a state of quietude, its commercial prospects brightening, and its people recovering from the reign of terror and begining to forget that there is such a thing as plague at all, the same pleasant outlook is by no means general throughout the whole of the presidency.

The plague conflagration has spread southwards and in several centres its deadly fires burn with unabated fury. The returns show that in the week ending November 11th there were in Dharwar 2,940 cases with 2,374 deaths; in Belgaum to the North there were 1,338 cases and 988 deaths; further North again in Kholapore there were 820 cases and 599 deaths. These are the figures that are shown in the returns, but we have every reason to believe that they fall far short of what actually is the case. We hear rumors of deaths by the thousand and of whole populous villages being completely wiped out.

The figures shown in the returns are however grave enough, goodness knows, and there is every reason to fear that the coming years will continue to see the spectre of plague stalking triumphantly through the land.

PUBLIC NOTICE.

WANTED—JUSTICE IN BENGAL.

1. **WANTED.—Fair Trade in Medical Journalism.** The Bengal Government subsidizes and supports the *Indian Medical Gazette* and thus misuses public money. Public protest has failed to stop this injustice. The *Indian Medical Record* has flourished for nine years without State support and has won the confidence of the medical profession. The *Gazette* has struggled on for 25 years with the aid of public funds. Comparison of subscription lists will prove these facts. The Bengal Government is guilty of injustice in this matter and it is hereby declared that this NOTICE will continue to appear in this form and in this position until Sir John Woodburn, the Lieutenant-Governor of Bengal, puts an end to this disgraceful and iniquitous system of State subsidy to the *Indian Medical Gazette*, which is owned by a private trading firm.

2. **WANTED.—For the Medical College of Bengal in Calcutta, a fully qualified Surgeon and Teacher of Surgery, to occupy the position of Surgeon to the Calcutta Medical College Hospital and Professor of Surgery to the Calcutta Medical College.** The aspirant should be a tried and experienced practical surgeon, well versed in all the lore of ancient and modern surgery, and be thoroughly capable of teaching a large class of students (who pay the Indian Government for their education) the following subjects:—General Science of Surgery, Surgical Anatomy, Surgical Pathology, Practical and Operative Surgery, and Clinical Surgery.

NOTE.—Certain members of the Indian Medical Service, whether they be qualified or not, will be favourably received by the Chief Secretary to the Government of Bengal, but it is specially notified that all other applicants outside the service of Her Majesty's Government in Bengal or in India, must be really and truly qualified.

This NOTICE will stand unchanged until the Bengal Government removes the present incumbent of the chair of Professor of Surgery (Mr. R.D. Murray M.B., who studied *modern* surgery in 1879, vide Englishman) and till the Bengal Government does its honest duty by providing the students of the Calcutta Medical College with a proper Teacher of Surgery.

[illegible]

The Watchful has sent the following letter to The Editor of the Railway Times:—

Sir,—My attention has been drawn to a statement made in your journal of the 30th October 1898, in which it is stated that I have been asked by an association or society of railway employés in India, to become their president, and some surprise is expressed that I should link myself to a body that does not aim, in the highest and truest sense, at the advancement of the Cause of the European Railway man *domiciled* in India.

I beg to state most frankly and unreservedly that my political principles are based on the strict and just observance of that axiom of British honesty and impartiality "A FAIR FIELD AND NO FAVOR."

I recognize with deep regret that the Government of India has flung this guiding principle of true and righteous government to the winds in its dealings with the Domiciled British and European Community and its descendants in India; that the policy of the India Office in London and of the Supreme Government of this country, has evinced the most cruel and barefaced prejudice towards this important and ever growing community, inasmuch as the Government is making their struggle for existence more difficult every day, by the creation of disparaging and invidious differences in the market value of their labor as compared with labor imported from England in the various avenues of State-paid work in this country, and by the daily increasing, though absolutely unnecessary, importation of every kind of labor from England. The Government of India has heard the bitter cry of the children of Europeans in India for bread, it has read their earnest and reiterated appeals for the just redress of wrongs through their representative associations, it has had these prayers forced upon its attention in the audience chamber of its fountain head of power, the India Office of London, that stronghold of official Anglo-Indian prejudice and despotism, but to one and all of these attempts to evoke its exercise of justice, the Government of India has been either callously and contemptuously indifferent or only pharasaically sympathetic.

I bear this testimony to the shame of the British Indian Government. I do so with a burning sense of indignation at the way in which my people in this country have been treated, and I do it with the express object of arousing a sense of solemn responsibility in the hearts and minds of the Domiciled European Community of India, for the future well-being of their children. I do so because the Government of India has been indifferent to the cry of our people, for the sole reason that it believes with Lord DUFFERIN, THAT WE ARE NOT UNITED. Lord DUFFERIN in his famous minute on "the Question of forming Anglo-Indian Regiments in India" wrote:—the question of the difficulty of raising Anglo-Indian Regiments is not one as to the *physical fitness* of this community to serve as soldiers. It is one of political significance. DIVIDED as it now is, the Government can afford to treat its requests with indifference, but LET THEM ONCE BE UNITED, AND THEY WILL NOT BE REPRESSED. These words form the keystone to the socio-political emancipation of the Domiciled British and European Community of India. This same advice was sounded in my ears by a few eminent politicians in the British House of Commons last year.

The natives of India have succeeded in obtaining a just recognition of their political position by persistent agitation and [illegible]. Our people have adhered to the old fashioned red-tapeism of forwarding cringing appeals to [illegible] "most respectfully begged" and the Government gave the stereotyped official cold-hearted reply "by direct interdict."

Our motto cry must henceforward be UNION, which being read aright means "DEFEND NOT DEFIANCE, and our demand must be A FAIR FIELD AND NO FAVOR. Equal rights for the Imported Britisher and for the Domiciled Britisher and his descendants in India. We ask that merit and ability be the only criterion for employment and promotion and that these be gauged by their only true and just test, OPEN AND IMPARTIAL COMPETITIVE EXAMINATIONS. At present, nominations and selections, entirely in the gift of the India Office or of the Supreme and Provincial Governments of India, backed by that curse of all despotic Governments, INTEREST, command the portals of every service and of every avenue of labor in this land. We demand that this autocratic system, which is warping the loyalty of the Domiciled British and European Community, disgracing the British Government, as well as ruining India, shall cease. We demand that wherever British or European labor is required in the Indian market, such talent, whether imported or locally trained, shall be treated on TERMS OF EQUALITY, and that MERIT SHALL BE THE ONLY TEST OF DIFFERENCE in the value of one commodity over the other. If this principle be not accepted and acted upon, there is no necessity for higher education in this land, and the domiciled Britisher and his children must for ever remain the bondsmen of their imported kinsmen. The very idea is sufficient to cause a revolution.

Let Railway men all over India once realise that UNITY OF PURPOSE, UNITY OF EFFORT, AND UNITY OF ACTION are the means, the only means to bring about a successful and satisfactory termination to all their disabilities and grievances, an era of peace, contentment and prosperity will then and not till then dawn on their destiny. It is the old story of the exercise of a conscious possession of power, used righteously and with a righteous end in view. Everything must be done constitutionally, but let there be a firm, manful and dignified exercise of this real and conscious power, such as the employés of the Domiciled British race possess, and those in authority will soon realise its meaning and its force.

These are my sentiments and I am prepared to stand by them and defend them, and to exercise my humble talents in the promotion of the Anglo-Indian Cause on the principle of EQUALITY GAUGED BY MERIT and actuated by a true and unflinching British spirit of FAIR PLAY,

In conclusion let me urge every Railway man, no matter what his position, to at once cast aside all fears and face the fight before him in perfect and absolute UNITY with his comrades. Let no man be a traitor to the RAILWAY MAN'S CAUSE.

Yours faithfully,
JAMES R WALLACE, M.D., F.R.C.S.
50, PARK STREET, CALCUTTA, *24th November 1898*

TREATMENT OF TUBERCLE OF THE LUNG BY THE INJECTION OF NITROGEN GAS INTO THE PLEURAL CAVITY.

FROM a letter which appeared in the *British Medical Journal*, 22nd October, by Dr. STUART TIDY headed "A visit to the Hospital of San Giovanni at Turin" it appears, that what was described by Dr. MURPHY of Chicago at the Meeting of the American Medical Association (Denver, Colorado, June 10) as a new method of treating pulmonary tuberculosis, has been employed by Professor CARLO FORLANINI of Turin for the last ten years

"On entering the laboratory," Dr. TIDY says, "I saw an apparatus for the preparation of some gas, and on asking the

professor its use, he said, 'It is for the [illegible] to inject into the pleural cavity, and compress the pulmonary parenchyma in unilateral tubercle of the lung.' 'What results have you?' I replied. 'Guarisconi tutti' (they all get well); he replied.

And supposing they are cases of pure tuberculous infection? I asked. 'Guarisconi tutti!'

The professor added that he had published this method for ten years.

At the meeting above referred to, this method of treatment was dealt with at some length by Dr. MURPHY.

He drew an analogy between this method and the method of treating tuberculosis in other parts of the body. And of this analogy rest is the keystone.

In kindred cases, for instance, tuberculosis of the knee, we set at rest the tissues debilitated. With rest new tissue is formed and the disease germs enclosed in a case from which they cannot possibly escape. We sanction the life of the healthy tissue to repair the destructions of the disease. While the knee is at rest the tissue forms more rapidly, and gradually the diseased part is made by Nature to disappear. Subjects in the dead house will prove that this theory holds good in the lungs where tuberculous germs have begun an attack. Necropsies have revealed numberless persons whose lungs were once affected by the bacillus, but Nature has cured her ailments alone.

How can we put one lung at rest, to sleep as it were, put it off duty for a time, while we allow that rest to form the new tissue needed by Nature to smother the bacilli? We have the best pathological evidence that it will repair. Surgical operations prove that.

Pleurisy is a sequence of tuberculosis in 83 per cent. of the cases. Out of 146 cases of an eminent surgeon, but 4 were fatal where the operation of empyema was performed. Pleurisy is a curative and reparative to tuberculosis Tuberculosis is repaired by pleuritic effusion. We must treat the lungs as we treat tuberculosis in other parts of the body. The lung has the greatest capacity of repairing tissue. How, therefore with such facts known, can we aid and assist the lung in its efforts to encapsulate? We must put it in a condition to build up a cofferdam around the diseased part. That is accomplished by Nature in three ways. First, by removing the ribs and allowing a contraction of the chest over the diseased part, secondly, by opening the chest wall and rendering aid by direct injection into the pleural cavity. We inject into the pleural cavity some substance not poisonous that will remain for a long time, some substance not easily absorbed. The third method is by opening and allowing the chest wall to sink over the tuberculous cavity. I have operated by the latter method, and found that the cavity was in time obliterated. These skiagraphic views that I have were taken from a patient from November to April, at which time it will be noticed by the views the cavity has entirely disappeared The method with the admission of air has the same curative effect as allowing the collapse of wall. The injection of a gas or fluid into the pleural cavity, nitrogen gas preferred, is the ideal treatment for tuberculosis of the lungs The gas being very slowly absorbed may be allowed to remain for months without injury to the patient, until the disease is cured

One of these skiagraphic views shows a patient whom I operated upon some months ago. The curative effects of the operation are most apparent. After the injection of the nitrogen gas the patient suffered a slight dyspnœa, but immediately upon leaving the table remarked that he felt better than he had for months. He refused to take to bed. On the first night after the operation he was enable to sleep well, something he had not enjoyed for months. That irrigating and annoying cough prevalent among consumptives is undoubtedly relieved by the injection of the gas into the pleural cavity. In some experiments the weight lost on [illegible] disappeared. With the operation, which is a simple one, there is no pain and no discomfort. There is no difficulty in aspirating the operation. There are some risks of course, but none greater than the average surgeon encounters in ordinary operations. It may be said that there are possibilities that the air will not enter the pleural cavity when there are adhesions. These adhesions can easily be removed. The pathology upon which this is based is the quiescence of rest.

With this method of treatment one may attack the earliest stages of the disease. It may be caught in its very incipiency when the patient enjoys fairly robust health and will not be endangered by any shock that may occur.

In most cases artificial pneumothorax, the operation applying to the injection of nitrogen into the pleural cavity, will be the most available operation. The arguments for it are the methods of repair. The prominence of tuberculosis of the lungs is due to the opportunities for infection and not to lowered resistance Rest favours resistance, and by the injection of the nitrogen the diseased lung will be allowed to rest. Any functionary useless organ is the seat of connective tissue overgrowth. Thus, as the lung is a functionary organ at rest, the tissues rapidly form and enclose the destructive germs in a prison The connective tissue overgrowth is the process by which tubercle is walled off.

The cessation of the expansion of inspiration causes the fibres to arrange themselves as is best suited for walling, The collapsed tissue shuts off blood and lymph channels, which are routes of infection. Connective tissue grows best in areas of poor blood supply. Tuberculosis long remains a local disease. The views of STRAUSS, KOENIG, CABOT, and RUNEBERG substantiate this The conclusion is irresistible that in most cases of tuberculosis as we see them this is the operation of election.

TREATMENT OF ANEURISMS BY SUBCUTANEOUS INJECTIONS OF GELATINE.

M. LANCEREAUX communicated in his own name, and in that of M. PAULESCO, at the French Academy of Medicine 11th October 1898, observations on two cases of aneurism of the arch of the aorta, and one case of aneurism of the right subclavian, which were cured by subcutaneous injections of gelatine.

The solution employed by M. LANCEREAUX contained 2 grammes of gelatine in 100 grammes of normal salt solution. Of this solution he injects 200 to 250 c.c. at a time, and repeats the injection as often as necessary to procure the disappearance of the aneurismal tumor.

While these injections are of undoubted benefit in sacculated aneurisms, the case is different with fusiform dilatations involving the whole circumference of the vessel, here there is no slowing down of the blood current and as this is one of the most indispensable conditions for the deposition of fibrin, the gelatine injections are no use

M NUCHARD said, I have seen a man, without a history of of syphilis, in whom a large aneurismal tumor of the aorta completely disappeared after 15 injections of the gelatine solution described by M LANCEREAUX.

On the other hand, with the same injections, in a case of tubercle of the lung, I have rapidly checked hæmoptysis which had previously resisted all treatment. These cases appear to me to be also suitable for treatment by subcutaneous injections of gelatine.

At the same time I do not think that these injections, which are rather painful, are absolutely free from danger, I would particularly recommend that they should not be used in

considers a collateral artery opens close to the aneurismal pouch.

M. Fournier remarked.—In connection with the communication which M. Lancereaux has just made, I would like to draw attention to a common cause of error in the diagnosis of aneurism of the aorta. I remember once seeing in consultation with Peter, a syphilitic case which presented every sign of aneurism of the aorta, particularly remarkable was a considerable zone of dulness at the base of the sternum.

I put him on a strong anti-syphilitic treatment which cured him in three weeks. In this case the appearances were not caused as Peter and I thought by an aneurism, but by extensive gummata in the neighbourhood of the aorta I have had occasion to observe the same thing in several other cases.

Functional Activity of the Kidneys

M. Chiais (d'Evian).—In the physiological state it is known that a man passes in the 24 hours, a quantity of urine in excess of the liquid he has drunk.

In the 12 hours of the day (from 7 A.M. to 7 P.M.) he secretes two-thirds of the total urine of the 24 hours

After the mid-day meal, he passes in two hours the total quantity of fluid taken as drink; the density of the urine then falls below 1010. The same does not happen after the evening meal

A local disease does not affect the manner in which the kidneys act, it only becomes modified when the general health is affected by infection or innervation.

When the mode of action of the kidneys becomes re-established either spontaneously or under treatment, the equilibrium of the organism is restored and drugs are not required

I think the knowledge of these facts interesting because perversions of the functions of the kidneys begin and creep on in a latent manner.

A SHORT HISTORY OF THE HYDERABAD MEDICAL SCHOOL

Dr Khaja Ashraff *Civil Surgeon* of Suriapett, Nalgonda District, of Hyderabad writes as follows in the *Deccan Medical Journal* —In former days, English medicine was not practised in Hyderabad. Till the year 1257 Hijri, there were only Hakims, and they practised the Yunani system of medicine. The best known amongst them were Hakim-ul-Hukma, Gulam Hussain Khan, Hakim Raza Ali Khan, Hakim Shafa-i-khan, Hakim-ud Dowla, Hakim Munna Jan, Hakim Hafiyat Talub Khan, Hakim Mualij Khan, Hakim Muhamad Zama Khan, Hakim Syed Sahib, Hakim Masih-u-Zaman Khan, Hakim Ahmed Yar Khan and Muhi-ud-Dowla. These Hakims were no doubt clever men, who were able to diagnose cases successfully and some of them even had access to the then Nizam They were all outsiders who had come to Hyderabad and had gained honor and wealth here, but considering the population and the large number of patients requiring treatment, it was impossible for these few Hakims to attend all those who required medical assistance. The result was that the poorer people did not receive the attention that the nature of their illness demanded, and consequently had to bear much unnecessary suffering. As a last resort, they had recourse to witch-craft, magic, &c.

About that time a peon in the service of Mr. Deighton, Talukdar, who had worked in his hospital and had thus become acquainted with the use of Jalop and Quinine and the doses in which they were to be administered, set himself up as a Medical Practitioner. These medicines having relieved a number of the sick to whom he had given them, his reputation soon spread among the people as a Physician, in fact as a Specialist, and he made heaps of money.

In the year 1257 Hijri, His Highness the late Nawab Nasar-ud-Dowla Bahadur suffered from some urinary complaint and diabetes; and the Yunani treatment gave him no relief.

One day General Hastings Fraser, who was then British Resident at Hyderabad, had an audience of His Highness and observing that His Highness was dull, enquired after his health. His Highness told him that he was suffering from urinary complaint and, remarking incidentally that he had heard the English system of treatment praised a great deal enquired if there was a remedy for his malady. General Fraser replied that if His Highness was pleased to order, he would send a Doctor at once. His Highness consented to it, but on condition that English medicines should not be administered in either a solid or liquid forms, His Highness related the story of Hakim Alvi Khan Dehlavi who was taken to Persia by Nadir Shah. A few days after their arrival there, Nadir Shah had a severe headache, and failing to obtain relief from his own medicines, he asked the Hakim to treat him, but objected to the use of medicine internally or externally The Hakim prepared a *fan* and by means of it made him inhale some kind of medicine which removed the head-ache. "But I" concluded His Highness "will not even inhale any English medicine."

However, according to the Resident's wishes, Dr. Maclean, the Residency Surgeon, duly presented himself at the Palace, and without giving His Highness any medicine, so regulated his diet that in three months' time he was completely cured. His Highness was exceedingly pleased, and ordered that a school should at once be opened to teach English Medicine and Surgery to natives of Hyderabad

Accordingly in 1216 Hijri, a School was started near the *Tope ka Sancha* (opposite to the Fatah Maidan) with the undermentioned pupils.—

Mahomed Yakub, Mahomed Bakir Ali, Gulam Hussain, Buran Shareef, Khwajah Ashraff, Mahamud Hussain, Gulam Jilani, Syed Nur, Gulam Muhammad, Alakhan, Pir Khan Faizulla Khan, Muhammad Molana, Molana Fakir Sahib, Vazir Ali, Shafai Khan, Mirza Ali, Muhammad Ashrafi and Shams ud-din When this school had been in existance for about six months the Prime Minister by order of His Highness visited it, and after examining the pupils, gave prizes to the deserving ones. After this, the school became more popular, and the Government was greatly interested in it In a period of eight years, nine pupils passed and were declared qualified to practise medicine. They were appointed as Surgeons Dr Muhammad Ashraff and Hakim Faizulla Khan being the two first to be appointed in the City. The late Sir Salar Jung the I, by his encouragement, gave great impetus to this school, which during the last 20 years has made such rapid progress, that it has sent out qualified Doctors to the remotest corners of His Highness the Nizam's Dominions

It is unnecessary to mention all the progress that has been made during the beneficent rule of His Highness the present Nizam. It is one of the results of his peaceful reign that we are able to day to give expression to our feelings of gladness.

HOW THE PLAGUE WAS FOUGHT IN AN ENGLISH VILLAGE IN THE SEVENTEENTH CENTURY.

We take the following from the *British Medical Journal* :—"Dr. Gordon Sharp, of Leeds has sent us the following interesting account of the manner in which a Derbyshire clergyman fought the plague in the seventeenth century. The village of Eyam (pronounced Eem), sometimes called the "Plague Village," is situated in Derbyshire, six miles north of Bakewell, and twelve from both Sheffield and Bux-

ton. In 1665—1666 it was visited by the plague, which swept away 259 of its 350 inhabitants. The disease appears to have been brought to the village by a tailor. A tailor received from London on [illegible] 1665, a parcel of cloth patterns, together with some old clothes. The man who opened the parcel was soon seized with sickness, and died on the third day, with the well-known symptoms of bubonic plague. Up to the end of 1665 14 inhabitants of the village died of the disease, and during the first five months of 1666 there were 30 more deaths from the same cause. In June the epidemic began to rage more severely. The VICAR of Eyam, WILLIAM MOMPESSON, bravely stuck to his post, visiting the sick and burying the dead. When the plague became [illegible] besought him to leave the place, but he refused to do so. Moreover, he induced a number of the villagers, who wished to leave, to abandon their intention, by pointing out to them that they would carry the disease with them, and its danger wherever they went. At the same time he wrote to the Earl of Devonshire, stating that the people would stay in Eyam if they were supplied with the necessaries of life. Arrangements were made accordingly that supplies should be left at regular intervals at a certain spot, a signal being given when they were placed there. The VICAR, perceiving the danger of people collecting in church in warm weather, conducted the services outside, and preached from a limestone platform, which has ever since been known as Cucklett Church. The disease continued to rage through July and August, and in the latter month the VICAR's devoted wife fell a victim to the scourge. MOMPESSON tried all the cordials and antidotes recommended for the plague, but with no avail. He therefore told the people to burn all clothing, furniture, and everything else that might harbour the disease and he set them the example by destroying his own effects. In October the disease began to subside the last victim dying on October 11th, 1666. The survivors, however, were in such terror that they continued for some time to burn their things, leaving themselves scarcely enough to shelter them from the winter. Though but 91 of the inhabitants of Eyam escaped with their lives, the VICAR's manful fight against the plague was successful, as he prevented it from spreading beyond the village. The story of his noble philanthropy is well told in Miss CHARLOTTE M. YONGE's *Golden Deeds*, and in greater detail in WILLIAM WOOD's *History and Antiquities of Eyam*."

THE SCIENTIFIC BASIS OF SURGERY.

SAYS the Lancet —"*Too much stress cannot be laid on the* scientific basis of surgery. Science is a word which has come to be used in too technical and artificial a sense. We need to get back to its simple meaning—knowledge. We are too apt to think of it merely as a matter of test-tubes and microscopes, and so when the scientific aspect of surgery is discussed visions of bacteria rise in the mind. We would rather lay stress upon the importance of all branches of surgical knowledge and upon the fact that on all sides in every direction our knowledge of disease and of surgery has increased and become to a large extent defined. The days of empiricism are largely gone by, but we have not escaped altogether from the thraldom of tradition. The art of surgery—the handicraft—is a great accomplishment, but unless associated with a knowledge of nature's processes and powers its possession does not constitute a surgeon. Knowledge is power in everything, and only so far as we know health and disease, the causes, tendencies, signs, and consequences of morbid processes, can we deal [illegible] with real success. [illegible] is [illegible] the [illegible] of an [illegible] and is more attractive than the pursuit of knowledge, [illegible] results are more immediate. It is therefore [illegible] incumbent upon teachers [illegible] the importance of knowledge and to [illegible] iteration that it is by knowledge alone that we [illegible] fitted for the practice of our profession."

THE RESPONSIBILITY OF THE SURGEON.

IN our view the greatest of all the changes in the moral position of surgeons within recent times, is the enormous responsibility which now attaches to a surgical operation. In former days the responsibility of the surgeon was limited to determining whether an operation should be undertaken and, if so, what and when. But now we have learnt that the issue of an operation is very largely under the surgeon's control and therefore a new burden is cast upon him. An operative failure cannot nowadays be disregarded as in the past and laid to the charge of fate or trust in Providence. It is not too much to say that this sense of enhanced personal responsibility should be ever present to the surgeon's mind, not as a haunting paralysing dread, but as a stimulus to be ever on the alert and at his very best. On the moral aspect of surgery, too, something may be said about the *cacoethes secandi* that is not unknown in many branches of the art—the restless activity in the use of the knife that seems to regard the poor human frame chiefly as a field for operative displays. We have heard of surgeons who speak of operating as their "hobby" their chief pleasure in life, their one panacea against *ennui*. When the history of this century comes to be written, the story of LISTER's work will form a very bright page in it, but the historian will have to fill in the shadows if his picture is to be a true one, and to tell that the safety of a surgical operation led in some cases and in some hands to a reckless resort to operation.

PREMEDITATED SUICIDE.

LANGSDALE's *Lancet* for July quotes the following lament of a wearied layman from *Judge*

I ask a glass of water, or of claret, or of beer;
I go to kiss a pretty maid—she turns away with fear,
I eat some lemon jelly that's been standing on the sill;
And they tell me all are loaded—warranted to kill.

I put a pencil to my lips; I gulp down pounds of air;
I visit all the cattle at the Wayback County Fair,
I buy a paper of a boy, and handle dollar bills,
And they tell me every one of these has that on it which kills.

I'm not much up in science, but I know a thing or two;
I know that if I do not eat or drink or kiss a few
Of these fashionable, dreadful germs, I certainly will die,
For I'd have to give up breathing to escape the bacilli.

Bacteria, bacteria! I'm not afraid of you!
The world would roll around the sun for all that you can do.
So on dollars and on papers and on kisses and on food,
Just hand me common bacilli—I'm not a science dude.

And what's the use of living if you can not eat or drink,
If pretty girls and dollar bills, and even printer's ink,
And country fairs and pencils are only other terms
For the rapid-transit system of the scientific germs!

PUNCTURE OF THE ABDOMEN FOR [illegible] TYMPANITES IN TYPHOID FEVER.

Dr. DAL[illegible] of Bloemfontein [illegible] successfully practised puncture [illegible] treme distension of the [illegible]

The abdominal tympanites [illegible] antiseptic action of this [illegible]

[illegible] the delirium [illegible] could be well discussed and tense. A [illegible] was then introduced into this portion [illegible] while the trocar was withdrawn [illegible] was kept clamping. It continued to issue from the [illegible] a space of two minutes. The condition of the patient was much improved after the operation, the action of the heart became more energetic, the temperature fell, the delirium disappeared and all danger passed away as if by magic.

HOW THE BRITISH GOVERN INDIA.

The *Indian Daily News* referring to a recent act of jobbery on the part of the Bengal Government, shows how jobs of the worst type are perpetrated in India and how every effort to expose them in Parliament is hoodwinked by the lying and evasive replies of the India Office. It says:—

"In fact, they (the India Office) have lost that reputation (for honesty) long ago. If questions are asked in Parliament about those matters, the India Office supplies the Secretary of State with a glib evasion of the question, and no one is sufficiently interested to ask a question twice about India, though on the answer may depend the efficiency and loyalty of a large service. And so things drift on in this land of snobbery, jobbery and robbery, and the only way to deal with a particularly shameless and unjust job of this kind is to talk about it. We ourselves have always urged a strict application of the 55 years rule, for the absolutely unjust favouritism of its application has done a good deal to discredit the Indian Government. Nothing, however, will be done till we get a Viceroy whose sense of justice will be stronger than his sense of reliance on the efforts of his high executive officers. What the natives always complain about, —the decadence of the sense of justice of their rulers—is, we are sorry to say, perfectly true, and these sort of incidents show it."

QUACKS CONVICTED OF MANSLAUGHTER, CALCUTTA SPIRITUALISTS BEWARE!

Reuter telegraphs:—"The inquest on the body of Mr. Harold Frederic, which had been adjourned in order that further evidence might be called as to his treatment by Christian Science, and his belief in its efficacy, has concluded. The jury found a verdict of manslaughter against *Miss Lyon and Mrs. Mills, the Christian Scientists. Bail was accepted for their appearance at the Old Bailey.*"

There are some quacks of a similar type in Calcutta, who under the guise of spiritualism and magnetic touch, backed by hysterical invocations to the gods, are deluding some nervous folks into believing that they can be cured of every ailment by these machinations. The whole system is an audacious fraud, and the sooner these otherwise harmless maniacs are brought to their bearings, the better will it be for themselves and their victims.

THE RISLEY PLAGUE IN CALCUTTA.

Mr. R. T. Greer, C.S. who on the eve of his retirement from the Chairmanship of the Calcutta Municipality was honored by [illegible] Commissioners with a public demonstration of their [illegible] of his industry, ability, tact and [illegible] his tenure of this very trying and [illegible] conversation with our much respected [illegible] Dr. Mahendra Lal Sircar, [illegible]

[illegible] writes Dr. Sircar, who [illegible] of the Commissioners on the [illegible] case of true [illegible] in Calcutta [illegible] Sircar [illegible] high fever

[illegible] by glandular swellings. Most people, we think will share the views of so experienced a physician as Dr. Mohendro Lal Sircar."

HERNIA CURES, POLICE INTERFERENCE WANTED.

Every surgeon knows the difficulties of curing hernia. It is a surgical disease requiring surgical treatment. None but a qualified surgeon should dare to treat such an ailment. In Calcutta we find the *Statesman* allowing a layman to advertise the cure of Hernia. Here is the puff:—

"Hernia (Rupture)."

"I guarantee to cure this disease radically without any surgical operation, no matter of how long standing. Cases by contract. Copies of certificates of cure will be forwarded to those desirous of being treated by me.

Thomas King, Hernia Specialist, 28, Bowbazar Lane Calcutta."

We commend this and similar illegalities of medical practice in this city, to the observant attention of the Commissioner of Police.

A COLLEGE! A COLLEGE!! A COLLEGE!!!

The following farcical notice appears daily in the *Statesman*.

"College of Physicians and Surgeons of Bengal, *294, Upper Circular Road, Calcutta.*

The College has been opened after the Summer Vacation for sessions 1898-99. Students should take their admissions, on or before 1st September next. For admission, the Entrance Examination of any Indian University is required.— F. A. Candidates will be admitted as "Free Students." Admission fee, Rs. 3. For further particulars, apply to the Secretaries."

Nothing could be more misleading than this notice, and we have no hesitation in roundly condemning those who are responsible for this caricature and burlesque of so-called medical education.

OFT REPEATED BUT UNFULFILLED PROMISES.

Reuter telegraphs:—"Lord Curzon, replying to a congratulatory address at Derby, said the qualities most essential in the discharge of his duties as Viceroy were courage to grapple with complex problems and sympathy with all races, creeds and classes."

Many a Viceroy has had a similar conception of his high privilege and his sacred duty towards the people of India. How many have failed in carrying out this ideal. Three weeks in India under the influence of Secretariat officials, is quite sufficient to infuse the endemic contagion of Secretariat prejudice and unsympathetic disregard for the people of the country into the mind and heart of the best intentioned Viceroy that has ever come to the country or that is ever likely to come to it.

SHOULD WE BILL OUR PATIENTS?

The doctors of Sweden never send bills to their patients. If you have occasion to call a physician you will find him not only skilful in his profession, but a highly educated and honorable gentleman. You will also have a proof of the honesty of the Swedes and their friendly confidence in each other. What you shall pay your physician is left entirely to your own choice. The rich may pay him liberally, whether they have need of his services or not, if he has once been retained by them. The poor may pay him a small sum, and the very poor pay him nothing. Yet he visits the poor as faithfully as he does the rich. A similar custom prevailed up to the middle of the present century in some of the most secluded portions of the Highlands of Scotland. There the doctor

collected his entire year's bills on a certain market day in summer, getting perhaps five or six pounds from the larger farmers, but only as many shillings from the poorer crofters.

HOW GOLD NUGGETS GROW.

Has been a question that has puzzled the world for centuries and many and wild are the theories how the gold was washed out of the original reefs and deposited in river beds and gulches in larger nuggets than those found within the parent reefs; but this improbable attrition and reunion theory has been knocked on the head by a Slavonic chemist, named Zsigmondy (Zeit. f. Anal.) who made formaldehyde react on a slightly alkaline solution of a gold salt and found that when the product was dialysed, gold was obtained in a colloidal condition in which state it was freely soluble in water from which it could be precipitated by adding sodic chloride to the solution. Colloidal gold probably exists in quartz reefs from which it washed out by the rains into the rivers to be deposited in the river gravels, wherever there is anything containing sufficient salt to cause its precipitation, and the fine particles by such-like coalesce by molecular conglomeration to form a nugget whose size increases in the course of ages.

FOREIGN BODY IN THE BLADDER.

FRENCH SURGICAL SOCIETY.

M. PICQUÉ made the following remarks on a case reported by M. ROCHARD relating to the supra-pubic extraction of a hair-pin which a young girl of 14 had introduced into her bladder.

M. ROCHARD had in the first instance made two ineffectual attempts, under choloroform, at extraction by the natural passage after dilatation of the urethra.

On three occasions I have had occasion to intervene in analygous cases, and it is my opinion that we must give up the hope of obtaining satisfactory results by direct extraction after dilatation of the urethra.

In cases of this kind it is, in my opinion, better to operate through the vagina, but in cases where the vagina is small and the hymen intact, as in the case under consideration, I believe that the supra-pubic method is indicated.

DEATH OF DR. WILLIAM PEPPER.

Is reported from California from angina pectoris. Nothing could have thrown Philadelphia into more profound grief than the news of the demise of this gentleman who had done more for that city than any man alive. He was one of those few men who was never idle and besides taking a prominent part in raising the standard, of medical education he built, and perpetually endowed the clinical laboratory as well as urged the state opening of laboratories of anatomy and hygiene and museums also for the better understanding of men and disease. He was for many years Professor of pathology and, when the Pennsylvania University bell tolls for class many a head will bow in grief over his memory.

HOURS FOR BIRTH AND DEATH.

FROM an analysis of 36,515 births at Rome between 1894 and 97 and of 25,000 deaths between 1866 to 1880, ROSEBY (*N. Y. Med Jour.*) finds that the greatest number of births takes place in the early hours of the morning, when carbonic acid which is an excitant of uterine contraction is more abundant than at other times, and that the greatest number of persons die in the early hours of the afternoon when the sympathetic, which is more active at night, is not controlled by the brain and spinal cord.

LONGEVITY STATISTICS.

BEENA COUTRIN who was born in Africa in 1743 and is now residing in Rio de Janeiro, is the oldest person living, whose age has been proven, and next to him comes a coachman of Moscow and WILLIAM GREEN of Sunderland with 140 years a piece. In England there are 146, Ireland 378, Scotland 46, Germany 78, France, 215, Sweden 10, Norway 26, Belgium 5, Denmark 2, Spain 401, and in Servia 575 persons who have passed the century mark, and it is curious to note that more persons over 100 years old are found in mild climates than in the higher latitudes.

WANTED—SYSTEMATIC RESEARCH BY REGULAR METHODS.

SAYS *Indian Engineering* :—Much of what we in British India do is fragmentary work, put up haphazard as the exigencies of the moment dictate, without the least effort to bring the various departments into line or into relation with each other. We plant a Bacteriological Laboratory in one place, Chemical Examiners in another, and we talk of establishing a research university in a third. We bring out experts at long intervals, and then pigeon-hole the reports which everybody admits to be master-pieces. We send Civilians to be trained for Directorships of Agriculture and Army Doctors for Chemical Examinerships and mint assaying. No doubt there are always good reasons for each of these steps; but the whole strikes us as wanting in continuity of texture, system, and plan.

OUR WORTHY D.G.

SAYS the *British Medical Journal* :—Surgeon-General R. Harvey, C.B., D.S.O., M.D., Bengal Establishment, has been appointed Director-General of the Indian Medical Service and Sanitary Commissioner with Government of India, in succession to Surgeon-General J. Cleghorn, C.S.I., M.D., retired. Surgeon-General Harvey entered the service as Assistant Surgeon, March 31st, 1865, and became Surgeon-General April 1st 1895. He served with the Bhootan Expedition in 1865-66 (medal with clasp); with the Looshai Expedition in 1871-72 (clasp); with the Hazara Expedition in 1891 as Principle Medical Officer (clasp); with the Miranzai Expedition in 1891 under Sir William Lockhart as Principal Medical Officer (mentioned in despatches, D.S.O., and clasp); and with the Isazai Expedition in 1892 as Principal Medical Officer.

THE DECCAN MEDICAL JOURNAL.

WE gladly accord a hearty welcome to our newly started contemporary. *The Deccan Medical Journal*. The first number has just come to our hands and it does credit to its Editor and printer. We find no date on this number so we cannot identify the period of birth of our Deccan friend, but we expect to see many issues following the first and we wish our contemporary a long and useful life and much prosperity.

SHORT ITEMS AND PERSONALITIES.

The "Professor" of midwifery in Calcutta attends the Eden Hospital for a few minutes daily. He gets a huge state salary, and spends the bulk of his time in private practice. How much clinical gynæcology and obstetrics does he teach? Was SIR JOHN WOODBURN charged a fee for publicly advertising in the daily newspapers the small number of successful abdominal operations performed by MR. C. H. Joubert, M.B. (ADMIRAL I.M.S.)

A meeting of the Council of the Indian Medical Association was held on the 28th November. A full report of the same will appear in our next number. Among the matters considered at the meeting was an important letter from the Government of India on the importation of doctors and nurses from England for plague duty in India, also the subject of Independent Medical Colleges and the inauguration by Government of a technical sanitary school and the institution of a degree in sanitary science by the Calcutta University.

Hitherto Military and Civil Assistant Surgeons, who have been in independent medical charge of districts, have not

been considered first-class officers for purposes of travelling allowance, a hardship which the Government of India has just recognised and remedied by ruling that in future these classes of officers will be entitled to travelling allowances at first-class rates. This concession will be much appreciated, and removes a hardship.

In the sad and untimely death of Military Assistant Surgeon E. J. Baptist of Madras, the Government of India has lost a most worthy and efficient Warrant Medical Officer. Mr. Baptist died on the 12th November 1898, and was only 42½ years of age. He was a frequent and valued contributor to the *Record* and this journal will ever hold his memory in high esteem.

Arsenic in wall paper causes much trouble. Hitherto the tirade has been against green wall paper, but close investigation has proved the presence of arsenic in various colored papers. The best living rooms are those with bare or painted walls as no matter how free it may be from arsenic, wall papers are always injurious to health owing to the dust and disease germs they collect.

Dr. H. M. Whelpley has in his possession a number of artificial roasted beans that look remarkably like the genuine article but are made of clay. They were obtained from France where there is a pretty extensive business done in coffee berries that are made of clay moulded and colored to match the best genuine article.

Motor tricyles are recommended by the *British Medical Journal* for use of doctors in country practise. Petrol or rectified benzoline, which costs about a shilling per 100 miles, is the fuel used to attain a speed that can be regulated (by a small lever in front of the guide bar) to anywhere between 4 and 20 miles per hour on even pretty steep gradients, though a little pedaling is necessary to help the motor in climbing a very steep incline.

The Calcutta Municipality has been distinguishing itself during the past fortnight or so by allowing dust and dirt to collect in all the principal streets, inches deep, and then, just as people are going to office and about to come home again, flooding each street with water and converting it into a quagmire—a sort of death-trap for cyclists.

Professor Gerald of Halle says that if during the process of curing, tobacco leaves be steeped in a decoction of which the principal element is wild marjoram (*Origanum vulgare*), the deleterious effects of tobacco are avoided and the nicotine neutralised without altering the quality and aroma of the tobacco.

The following officers come out for a term of service in the Royal Army Medical Corps and are posted to the Punjab command,—Major Zimmermann; to the Bengal Command—Lieutenant-Colonel Carter and Captain Manafield, and to the Madras Command—Major Cree, Captains Bullen and Buswell.

The "Professor" of midwifery in Calcutta declares to his female friends, that he and his "little assistant in Eden" will have their knives into the Editor of the *Record*. Our motto is the motto of the Wallaces, "aye ready." So come along Joubert, Stevens & Co.

Who does the midwifery in the Calcutta Eden Hospital for the poor European and Native patients who resort there? Is it done by pupil midwives and pupil nurses? What is the septic puerperal mortality of this huge institution? Will Sir John Woodburn kindly enquire?

Until definite orders arrive from home regarding General Gore's successor as Principal Medical Officer to Her Majesty's Forces in India, General Townsend, Umballa District, will officiate from the 1st December next.

Captain A Thompson, Royal Army Medical Corps, has been granted a gratuity of six months' pay, for the injury sustained by him in the execution of his duty at the Station hospital at Barrackpur.

Captain A. Anderson, I.M.S. Surgeon Naturalist to the Indian Marine Survey, proceeds from Bombay to Calcutta for two months to complete his description of the *echinoidea* collected in the Indian seas.

"Give the Professor of Surgery a towel." This is how our *modern* teacher of *modern* surgery addresses his requests to *his* students, his unwilling followers, in the operating theatre of the Calcutta Medical College.

Fifty rioters connected with the recent outrageous assault on Dr. Ramasawmy Iyengar at Chickballapore on the 17th November, have been tried by the District Magistrate of Kolar and sentenced to imprisonment for six months' each.

Dr. Weatherly, the Planters' Doctor, Darjeeling, and occasional poetical correspondent to the *Civil & Military Gazette*, committed suicide at 9 o'clock on Sunday, the 13th November. No reason is ascribed for this rash act.

Zinc is a metal that has been found in the human liver, ox muscle, hen's eggs, cat's liver, wheat, barley, beets and a few other vegetables; but the quantity is too small for remunerative zinc mine work.

The average brain of an intelligent European weighs 82·8 oz; but Dante's brain weighed 85·2 ounces, Schiller's 97·8, Kants' 99 0, Byron's 108·4, Cuviers 109 8, and Bismarck's 112·1 ounces.

Wood spirit as a substitute for rectified spirits of wine is claiming a good deal of attention just now as a cheap and serviceable solvent where its toxic properties are not objectionable

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In spite of all precautions and the expenditure of vast sums of money, the plague continues to stalk through India. It has now attacked the Central Provinces, and has apparently established a firm hold there.

The Risley Plague has disappeared but "the band plays on" and the pipers have to be paid. Sir John Woodburn does not pay the "piper" and so he does not care a brass farthing, but the taxpayers of Calcutta do.

Dr. Pettifer, the special Plague Officer has had an increase of Rs. 100 per mensem to his salary, and his gari or carriage allowances have also been enhanced. For what?

Mr. R, D. Murray M B. seems to have developed an acute attack of myopia since he has become "Professor" of surgery. People say he cannot see his *friends*.

It is rumoured that M. Haffkine will visit Bangalore to carry on investigations to ascertain if the plague there is different from the disease with which he is familiar

Mr. Chamberlain, as Colonial Secretary, has taken steps to establish a School of Tropical Medicine at the Seamen's Hospital, Albert Docks, London.

Lord Lansdowne has ordered the enrolment of a battalion of one thousand Chinese to serve at Wei-hai-wei under British Officers.

We are pleased to learn that Captain P. W. O'Gorman I.M.S, who is now on furlough in England, has passed the necessary examination for the D. P. H. Cambridge.

The hemlock plant grows wild in many countries; but it is strongest and most abundant in the active poisonous principles in Italy and Greece.

Foreign medical men may treat persons of their own nationality in Italy; but are liable to a penalty if they even give first aid to an Italian in a street accident.

It is now said that Colonel Taylor, R.A.M.C., who was in the running to succeed General Gore as P.M O. in India, has been appointed in the Soudan.

The India Office has called for doctors to volunteer immediately for plague service in the Madras Presidency.

Surgeon General Catherwood, R A M C, to be Principal Medical Officer, Bengal Command, *vice* Walsh

Captain Maddox, I M.S., is to be Personal Assistant to the Principal Medical Officer, Bengal Command, *vice* French.

Lieutenant-Colonel A. Deane, I.M S., has joined his appointment of Inspector-General of Civil Hospitals, Punjab.

Lieutenant-Colonels Smyth, I.M.S., and Conry, I M.S., both of Bengal, are permitted to retire.

The United states alcohol consumption in 1896 was 70,000,000 gallons less than in 1888.

WANTED—A European Medical Officer, with home qualifications and some years' experience in the treatment of coolies required for a large Tea Co in Assam. Apply stating terms to Superintendent, care of "Englishman Office."

Defaulting subscribers to the *Record* are requested to send in their dues before the close of 1898.

Please send all communications for the Indian Medical Record whether for the Editor, Proprietor or Manager, to 50, Park Street, Calcutta.

ON WOUNDS OF THE ABDOMEN CAUSED BY BLUNT FORCE.*

STILL all the above mentioned symptoms, even when, as rarely happens, they are all found united in a single case, permit us to form only a more or less probable diagnosis.

It is only when characteristic perforation peritonitis is fully developed, that the diagnosis of rupture of the intestines is freed from difficulty, but then it is almost always too late.

Exploratory laparotomy undertaken as soon as possible after the injury, is the most certain means of obtaining an early diagnosis, its urgency cannot be denied in face of the unsatisfactory results which have followed the waiting plan. Exploratory laparotomy performed under aseptic conditions is almost without danger for the patient.

Of course the operation should not be undertaken in the presence of severe shock, the abatement of the symptoms of shock should be waited for. Slight shock however is no contra indication.

Should it be considered dangerous to give an anæsthetic, the necessary opening can be made under local anæsthesia very well It need only be large enough to see whether gas, fluid, blood, or fæcal matter is present in the abdominal cavity. Should nothing be found, then in place of torturing uncertainty, we have without injury to the patient, our minds made easy.

Should the result be positive, then without delay anæsthesia can be induced and laparotomy be performed, by which alone we can hope to save the otherwise lost life of the patient, when there is a perforation of the intestines or a severe internal hæmorrhage

In order to pursue this course with the best chances of a successful issue, the rule laid down by MADELUNG must be followed; that the physician called in to render the first assistance should with the least possible delay, place the wounded person under conditions where the investigation can be carried out in the best possible manner and with the least possible danger; as a rule this will be in the operating room of a hospital.

It is known that men have recovered from an injury which caused a perforation of the intestines under the expectant, i.e, the non-operative treatment, and the consideration of this fact has led many surgeons to oppose operation; but that was when the technique of laparotomy was not so fully developed as it is at present, and when those operated on almost all died in spite of the operation.

Statistics show how few cases of rupture of the intestines recover without operation. PETRY fixes the mortality of cases in which the stomach or intestinal canal is ruptured by blunt force, and where no operation was performed, at 97·5 per cent! And amongst the extremely few cases in which a spontaneous cure has taken place, how many have been included in which there was no actual perforation at all, but only a bruised condition of the intestine with severe symptoms?

The following combination of circumstances favorable for healing must moreover be present, the exudation of fæcal matter through the perforation must be either very small, or absent altogether, the peritonitis must not suddenly develop into a diffuse septic inflammation, but must remain circumscribed, the perforation must not be too large, and must not be multiple; it must be quickly closed by neighbouring tissues, or by adhesions; such adhesions must be sufficiently firm not to be broken down by peristalsis, by collections of gas, or fæcal matter, or by the movements of the patient; serious

*By Dr. Adolf Schmitt, from Münchener Surgical Clinic. (Specially translated from the Muncher Medicinische Wochenschrift for the *Indian Medical Record*.)

complications must be absent, such as wounds of the liver, spleen, kidneys, mesentery or omentum etc.

How seldom these favourable conditions are found in persons suffering from these injuries is evident from the enormous number of deaths, and by the small number of cases in which spontaneous cure results, without fæcal abscesses, fistulæ, eruption of pus into the bladder or rectum, knitting together of the intestines leading to symptoms of obstruction, in short to a variety of sequelæ which in turn call for operative interference.

Under a non-operative treatment on the other hand, one can scarcely point to even a minimal number of cures.

True there are a certain number of cases which fulfil the above mentioned conditions, though this cannot be vouched for at the onset, and in these the administration of opium, ice, careful diet, and rest in bed may powerfully assist Nature's efforts to effect a cure. Should however a single one of the necessary conditions be wanting, all such measures are powerless to assist the onset of fatal perforation peritonitis.

The enormous dangers on the other hand with which the waiting treatment just alluded to is associated, are the very dangers which are avoided or proportionately reduced by an aseptic laparotomy.

By the earliest possible opening of the abdomen, is it alone possible to close the perforation and prevent further fæcal exudation, to remove the intestinal contents that have already escaped and so diminish the danger of infection and finally to check possible hæmorrhage.

Statistics also show that much better results are obtained from the operative than from the expectant treatment of abdominal contusions.

Cases of rupture of the intestines operated on within 24 hours of the receipt of the injury, gave 55 per cent. of recoveries against 25 per cent. in those not operated on. Those operated on after 24 hours (but still in the first days) showed 25 per cent. of cures.

The united results, 33·3 per cent. of cures in cases that were operated on, against 2·5 per cent. in cases that were not operated on, speak still more loudly and unmistakably in favor of operative measures.

According to our experience, and as is laid down in the text book of VON KONIG, the operation, to have the best chance of success, should not be postponed more than 12 hours after the injury, for every additional hour rapidly increases the gravity of the prognosis ; especially so, when the teaching, much too widely followed, of waiting for definite symptoms of peritonitis, is adhered to.

Yet experience has shown that the chances of cure are better under operation, even when peritonitis has fully developed, than when no operation is performed.

The peritonitis *per se* does not contra-indicate operative measures, operation is admissable at every stage, only the recuperative power of the patient is not so good.

In our cases, those operated on after 12 hours all died ; the only case that recovered was operated on 9 hours after the injury.

Certainly some of the cases were operated on too late, but in the majority of our cases the bad results were not due to the operation being undertaken too late, but to severe and unavoidable complications, as is shown in the histories already related, such as degeneration of the heart, shock, the operation having to be discontinued, etc.

In addition there are however a series of other contingencies—such as overlooking a second perforation, the giving way of a stitch in contused tissue, secondary perforation from necrosis of bruised and contused places in the intestinal wall, severe hæmorrhage etc ,—which according to the experience of the observer may be the cause of disappointing results.

Since in injuries of the abdomen caused by blunt force it is always almost impossible to exclude with any certainty rupture of the intestine, the opinion which we have formed is, that in doubtful cases, that is in the majority of cases which rapidly develop serious symptoms, the proper course is as follows.

Not to waste time on the opium treatment which is almost altogether hopeless, but at the earliest possible moment to open the abdomen by a small incision, and if the presence of a perforation is verified, to enlarge the incision and close the perforation by means of stitches.

While strongly urging early operative measures, it must be clearly understood that we do not recommend operations to be undertaken blindly. But when a careful investigation of the nature of the force, causing the injury, and the immediate or early appearance of complex symptoms in a measure confirms the suspicion that a rupture of the intestine is present, then we have the necessary indications for speedy operation.

A few words concerning the technique of the operation. It goes without saying that the operation should be performed as quickly as possible in cases when shock is passing off, or where there are signs of collapse coming on.

The first thing is a small punctured incision chiefly for diagnostic purposes, this may be made in the middle line, or as we have repeatedly done, over the site of tenderness, it may be done with a local anæsthetic such as cocaine, one per cent. solution. The further laparotomy where necessary, must be done under general anæsthesia.

It is sometimes very difficult to find the perforation which may be situated far back close to the spinal column, though we are certain of its presence from the evacuation of gas, or of serous, purulent, or fæcal matter.

It is our custom after a careful examination of the superficial loops of intestine to search the remainder methodically by drawing out a portion, examining it thoroughly and at once replacing it, sometimes it is necessary to take out large portions at once, especially when the convolutions are extensively matted together. The adhesions are often very fragile and must of course be handled carefully, as in some cases they form an important barrier against the further extension of peritonitis, or may protect a bruised and necrosing portion of the intestinal wall from threatening perforation

Regarding the seat of the rupture, important information is sometimes given by the character of the contents of the gut that have escaped, (particles of food, fæcal matter) or by the extent and thickness of the fibro purulent exudation in its neighbourhood.

When the perforation is found it is necessary to smooth the bruised and irregular edges, and the prolapsed mucous membrane, so as to close the opening by two rows of LEMBERT's stitches inserted into sound tissue ; it is also necessary to stitch up bruised portions of the intestinal wall, and ruptures of any of the layers, so that should necrosis occur, the necrosed portion may be pushed into the lumen of the gut without causing a perforation communicating with the abdominal cavity.

Should the condition be such that the necessary stitching would cause too great narrowing of the lumen of the gut, then resection of the injured portion is indicated ; if however the condition of the patient does not permit of this being done at once, the injured portion should be brought as superficial as possible and the abdominal wound packed around it with sterile or iodoform gauze, so that secondary resection may be undertaken when the patient is able to bear it.

The employment of MURPHY'S or FRASER'S absorptive button will much shorten the operation of primary resection. Under certain circumstances the stitching of the intestinal wound to the abdominal wall (artificial anus) may be recommended.

If an extensive collection of blood be found in the abdominal cavity, its source should be carefully looked for; extensive hæmorrhage is rare in wounds of the intestine, more common in wounds of the mesentery and omentum, and most frequent in wounds of the parenchymatous organs when it is often very difficult to check.

(Wounds of the liver and kidney may be packed or stitched, the spleen extirpated etc.) wounds of the mesentery and omentum should of course be stitched.

We have entirely abstained from washing out the abdominal cavity, as it is usually useless and is even dangerous, we remove the escaped intestinal contents and clean out the cavity with swabs wrung out of salt solution.

Where there is a large collection of intestinal contents in the pelvis, we introduce a gauze tampon, leading to the lower angle of the abdominal incision.

Finally I may recommend the use of salt solution (1000 ccm directly under the skin immediately after the operation, sometimes even before), it makes the patient feel more comfortable, increases the strength of the heart beats and diminishes thirst; we frequently employ it in prolonged operations especially on the abdomen.

SUPPLEMENT.

After sending the foregoing communication to the Editor, I have had the opportunity of operating upon another case of abdominal contusion.

This case differs in important respects from the preceding ones, in it the effect of the injury was to cause a perforation in a loop of intestine lying in a hernia, and in addition, a double perforation in the duodenum at a distance from the hernia.

This case also proved fatal in spite of early operation; the two perforations alluded to were very small, very high up and deeply hidden, so that in spite of eventration they were not discovered, accordingly the patient, though doing well at first, died on the fourth day after the injury from peritonitis, which even at the time of the operation was well advanced.

VIII W D, 55 years old, on the evening of the 25th May 1898, was admitted to the clinic to which he had come on foot. He said that about one o'clock in the afternoon while eating some food in the street, he had stumbled and fell striking his abdomen against the edge of a kerb stone. He was unable to get up at once and felt a severe pain in the abdomen, he afterwards managed to walk to his house, and in the evening to the clinic

For many years he had had a right sided hernia, which was easily reduced, and kept in position by a truss, which however the patient had not been wearing for some time; he believed that the hernia was down at the time of the injury.

When he reached his house he tried to reduce the hernia himself, but could not do so on account of the pain it caused. For some time he had suffered from severe chronic bronchitis, and coughed up a large quantity of thick phlegm. The bowels had been relieved a short time before the accident, no flatus had been passed since, urine was passed spontaneously and contained no blood.

On admission at 6 P. M. the patient's face betrayed no sign of severe illness. He complained of pain in the hernia and in the abdomen, his pulse was full, strong, 80 beats; temperature normal.

Even at the first examination it was noticed that the hernia, which was on the right side and about the size of the fist, was very firm and tense and pretty painful. The percussion note was dull. No attempt was made to reduce the hernia which appeared to be strangulated. The abdomen was much distended and absolutely dull on both flanks as far forward as the mid-axillary line, the dulness did not alter with careful changes of position. The front of the abdomen was tympanitic all over, the liver dulness was normal. Tenderness was marked over the whole front abdomen, but especially so between the umbilicus and ensiform cartilage

Immediately after admission an operation was proposed under the idea that the fall had caused strangulation of the hernia, in spite of much persuasion however the patient stoutly refused.

Towards 10 o'clock in the evening the temperature rose to 101·4°F. The pulse was weaker, 100 beats, but was still relatively good. The painfulness and tenseness of the hernia had increased, the abdomen was more distended, there was more pain above the navel, the dulness in the flanks had increased forwards and almost reached the mammary line on both sides. The liver dulness was normal. No flatus had been passed. The patient who had coughed up large quantities of phlegm had vomited and had a drawn expression.

The obvious diagnosis now was, that in addition to a strangulated hernia, there was a rupture of the incarcerated portion of the gut with a probability of some further injury to the intestines; and now eleven hours after the accident the patient gave his consent and late as it was the operation was at once proceeded with.

In the first place an incision was made in the usual manner over the most prominent part of the hernia; the sac was much thickened and infiltrated with sanguineous serum. On opening it a large quantity of fluid mixed with fæcal matter escaped; the knuckle of intestine was covered with dirty matter and on its convexity there was a circular perforation with irregular, bulged out edges and mucous membrane much prolapsed.

The opening into the abdomen was narrow and firm, so the surrounding ring was notched in several places, which allowed a small quantity of muddy fluid to escape from the abdominal cavity.

The wound was plugged provisionally and an immediate exploratory laparotomy begun in the middle line. On opening the peritoneum, there rushed out a large quantity of muddy brown fluid, without any fæcal odour. The parts of the intestines that were visible were covered with a fibro-purulent exudation. The incision was enlarged, beginning at the symphysis pubis and extending above the navel.

The amount of fluid that was evacuated measured 1½ litres. The intestines and their serous covering were intensely red all over, and covered with a copious fibro-purulent exudation, in many places they were so intimately bound together that it was impossible to break down the adhesions without injury to the serous coat. Between some of the intestinal loops there was thick pus.

Taking the greatest possible care of the adhesions, which were not so extensive in the superficial as in the deeper parts, the whole of the intestine was searched and almost completely eventrated without any perforation being found. That a perforation existed I was convinced from the quantity of muddy exudation, yet I hesitated to break down adhesions which quite possibly might be the means of closing a small opening. After cleaning out the abdominal cavity as carefully as possible and replacing the intestines the laparotomy wound was stitched up.

THE

INDIAN MEDICAL ASSOCIATION.

ESTABLISHED AND REGISTERED 1894.

OFFICE AND LIBRARY:

50 Park Street, Calcutta.

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Every man or woman, who being duly and legally qualified to practice medicine, by virtue of holding a degree or diploma or qualification in medicine, whether British, Indian, Colonial, European or American, whether from State Institutions or Independent Medical Schools, and every person holding a Government Certificate entitling such person to practice Medicine in any official or private capacity, shall be eligible for election to Membership in the Association

Every person desirous of becoming a member, shall send an application in the form given below, to the Secretary of the Association, and the Council shall consider and dispose of same at their next meeting. On any person being elected a member, an intimation to the effect shall be notified in the Journal of the Association, and on payment of the subscription, a certificate of membership shall be issued.

Application for Membership.

I, residing at , am desirous of being elected a Member of the Indian Medical Association; and I agree to pay the subscription, and to conform to the Rules and Regulations now existing, or which hereafter may be made by virtue of the same.

Name..... | Address.....
Professional title ..... | Date.....

Every Member shall pay a subscription of five rupees per annum which shall entitle him to all the privileges of membership. The subscription shall be considered due in advance on the 1st January in each year, and should be forwarded to the Treasurer.

The *Indian Medical Record* is the Journal of the Association, and is the medium of communication between Members of the Association. In it shall be inserted the Transactions and Proceedings, and all notices of meetings of the Association, and any other business which the Council deem necessary.

The Reading Room and Library of the Association are open to all members of the medical profession from 10 A. M. to 5 P. M. daily (except Sunday.)

Members who have paid their subscription to the Association, may obtain their membership certificates and copies of the First, Second and Third Annual Reports of the Association by applying to the Secretary. Name and address to be plainly written.

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OF THE
INDIAN MEDICAL ASSOCIATION PROVIDENT FUND.

I. The Fund shall be called the Indian Medical Association Provident Fund.

II. The Fund shall be registered under Act XXI of 1860, and the Registered Office shall be situated in Calcutta.

III. The object of the Fund is to give members of the medical community in India and Burma an opportunity of making provision for their families on the mutual benefit system.

IV. Any medical man or woman, may become a member of the Fund.

V. The Fund shall consist of two classes of subscribers, namely, (*a*) those who are members of the Association called Associate members, and (*b*) non-members of the Association called "non-associates." The subscription in each class shall be as follows :—

(*a*). Every non-associate shall, on joining, pay an entrance fee of Rs. 10, which shall be credited to the capital of the Fund.

(*b*). An annual subscription of Rs. 6 shall be payable by every non-associate member which shall go to meet the working expenses of the Fund.

(*c*). Members of the Association will pay no entrance fee and no annual subscription They will pay only their fee of Rs. 5 as members of the Association and the "calls" of rule (*d*).

(*d*). On the decease of any member, a call of Re. 1 per head will be made on all the other members of the Fund of both classes.

(*e*). To meet such calls, members of each class shall place in deposit in the Fund, a sum of not less than Rs. 3 at a time, to be renewed before the last rupee on hand has been paid on his account.

(*f*). Notice of the payment of a call shall be given by a post-card, and through the *Indian Medical Record*, which shall contain a statement of the sum paid on account of the member to whom it is addressed, and of the balance to his credit held in deposit in the Fund, and this shall be deemed a sufficient receipt for the payment of the call.

VI. The nominee or nominees of each subscriber shall, at his death, receive a bonus calculated at the rate of Re. 1 per head for each and every registered subscriber of the Fund, and who has a deposit in the Fund to meet the call.

VII. The claims of nominees in each class shall be paid as follows.—One-half on submission of certificate of death and surrender of entrance certificate (Rule X), and the remaining half, in accordance with the terms of Rule VII, after the claim is admitted by the Directors in meeting.

VIII. Applications for admission to the Fund must be made on a prescribed form which shall contain clearly written :—

(*a*). The full name, age, and address of the applicant.

(*b*). The class he wishes to join.

(*c*). An engagement on his part to submit to and abide by the rules of the Fund.

(*d*). The name, age, and address of the nominee or nominees for whose benefit he joins the Fund.

(*e*). And in the case of nominees who are minors the names and addresses of two or more guardians other than the subscriber, appointed in each case, to whom the bonus will be paid.

Every application must be accompanied by the entrance fee specified in Rule V (*a*), or by a postal money order or cash as subscription and "call" deposits due from associate members.

IX. A certificate of membership in the form prescribed shall be issued to each subscriber by the Secretary and Treasurer as soon as his name has been registered. This certificate may be renewed in favour of a fresh nominee on payment of As 8 and surrender of original certificate. On a like payment being made, a duplicate certificate may be granted when the original is lost or destroyed.

X. Claims for payment must be submitted on a prescribed form containing a certificate of the death of the according to priority of application, on a formal identification of the nominee, who shall be required to surrender the entrance certificate granted under the preceding rule.

XI. Every subscriber shall keep the Secretary and Treasurer of the Fund duly informed of any change in his address. If he fails to do so, he shall have no cause of complaint against the Fund for any disadvantage arising from such neglect.

XII. Any subscriber who fails to renew his deposit for payment of calls before it has been exhausted, and so cannot meet a call under Rule V (*c*) nor the subscription specified in Rule V (*b* or *c*) within the year for which it is due, shall, after reasonable enquiry, be adjudged a defaulter, and shall forfeit all claims upon the Fund. Nothing in this Rule, however, shall prevent a subscriber, whose name may have been struck off as a defaulter from joining the Fund as a fresh member on payment of all arrears

XIII. The Fund shall be managed by a President and three Directors resident in Calcutta, nominated by the Council of the Indian Medical Association from amongst their own members.

XIV.—An Auditor, who shall be a Councillor other than a Director, shall be elected annually by the Council, the accounts being submitted to such Auditor quarterly for audit.

XV. The half-yearly Report of the Fund shall be published in the *Indian Medical Record*, after it has been placed by the Directors before the Council of the Indian Medical Association.

XVI —The Annual Report of the Fund shall be placed before the annual meeting of the Indian Medical Association.

XVII —Any member of the Fund having a grievance against the Directors or Treasurer of the Fund may appeal to the Council of the Association for a consideration of his case.

XVIII.—The Directors shall meet once a quarter for the transaction of business, and shall have power to make, vary, or repeal bye-laws for the regulation of the affairs of the Fund, subject to approval at the next annual general meeting of the Association.

XIX.—All receipts, except sums credited to Working Expenses Account, shall be paid into the Bank of Bengal. When the sum accumulated in the Bank to the credit of Capital Account, in excess of the amount required to meet a call, admits of the purchase of Government Securities, an investment shall be made, and the interest obtained therefrom credited to Working Expenses Account.

XX.—When any question arises which, in the opinion of the Directors, should be referred to the whole body of subscribers, or which involves the repeal or alteration of or addition to, any of the rules of the Fund, the votes of subscribers shall be taken thereon, and the question so referred shall be decided by the majority of the votes received within one month from the issue of the circular.

FORM OF APPLICATION FOR ADMISSION.

TO THE SECRETARY AND TREASURER,
Indian Medical Association Provident Fund, Calcutta.

DEAR SIR, *(Station)*———*189*

I,———

hereby apply to be admitted as (1) associate / non-associate member of the Indian Medical Association Provident Fund, Calcutta, on behalf of my (2) ———

now———years of age, residing in———

and I bind myself to submit to, and abide by, the Rules and Bye-laws of the said Fund.

I also agree that all claims on the above Fund shall be forfeited by my nominee, should I neglect to pay my dues.

I forward herewith Rs.———

Yours faithfully,

Usual Signature and Address———

(1) Score out one word or the other to indicate which class you join.
(2) Here state relationship. No minor will be accepted as a nominee unless two or more guardians appointed, to whom the bonus secured will be paid, the name and address of each guardian being clearly written on the back of this form.

(PLEASE WRITE CLEARLY.)

From the herniotomy wound an iodoform gauze tampon was inserted into the abdominal cavity, the loop of intestine that was ruptured in the hernia was left outside, and was dressed with iodoformed gauze and moist salt solution compresses.

For the first two days after the operation the result was satisfactory. The pulse and temperature were normal, there was no vomiting, large quantities of fæcal matter were evacuated from the opening in the gut. The trouble caused by the bronchitis was diminished by small doses of morphia.

On the 3rd day the temperature rose to 101.4°F, the pulse was weaker, the abdomen was more distended and more painful. In the night between the 3rd and 4th day sudden collapse set in and the patient died on the morning of the 4th day.

Post-Mortem—; diffuse peritonitis, the large opening in the intestinal loop which lay outside was about 50 cm. from the ileo cæcal value; for a distance of about 20 cm. from the perforation, the mucous membrane of the intestine was dotted with small extravasations of blood; the intestinal wall was much thickened and the intestines in several places tightly bound together. After a prolonged search two small perforations were found lying close together in the duodenum about 30 cm. from the pylorus, the edges were irregular and the mucous membrane prolapsed in their neighbourhood, the intestines were less close bound together than in the rest of the abdomen. In the mucous membrane about the perforations there were several well marked extravasations of blood. In the abdomen there was only a very small quantity of muddy fluid. In addition were found signs of bronchitis, fatty liver and degeneration of the kidneys.

The perforation in the portion of the intestine lying in the hernial sac was evidently caused by bursting, owing to a sudden increase of pressure within the intestine. The escape of the intestinal contents was prevented by the narrowness of the opening into the abdominal cavity which was probably even more contracted at the moment of the accident. As a consequence, the force of the increased pressure was exerted upon the convexity of the loop where it caused a rupture, this explanation is born out by the bulged out edges and much prolapsed mucous membrane.

As in our earlier cases, it is much more difficult to explain the occurrence of the two small perforations in the duodenum; they may have been caused in the same way as the perforation in the hernia,—by an increase of internal pressure,—possibly also by direct crushing against the neighbouring special column, as in some of our other cases (case IV. for instance). It may be that they were secondary perforations following upon severe contusion of the intestinal wall, as careful search and eventration failed to discover them at the time of operation.

We are however inclined to think that they were the direct results of the injury on account of the large amount of muddy, non-fæcal, fluid removed at the operation: this could hardly have been due to peritonitis alone, considering the relatively short time of eleven hours which had supervened between the injury and the operation.

The situation of the small perforations was very much concealed and was only found with difficulty by drawing over the duodenum, considering the small degree of motility of this portion of the gut and the presence of adhesions it would have been impossible to have exposed them clearly and sewed them up at the operation.

Whether the diffuse peritonitis which was already present at the time of operation could have healed these perforations is impossible to say.

Nevertheless this observation also shows what a relatively small amount of blunt force can produce injuries of the severest kind, that such injuries are not negatived by the absence of severe symptoms at the onset, and the necessity of performing an exploratory laparotomy at the earliest possible opportunity to obtain the most accurate information concerning the results of the injury.

Current Medical Literature.

MEDICINE.

Early Treatment of Syphilis.

NEUMANN holds that no remedy can be depended upon to ward off the onset of constitutional symptoms in syphilis; the most that results is their temporary postponement. He admits, however, that exceptionally abortive treatment appears to be successful. Mercury and iodine are specific anti-syphilitic remedies which do not destroy the cause of syphilis, though they control its products. No other remedy is yet known which acts directly on the cause of syphilis, whatever that may be, and of this many proofs can be adduced. Thus the abortive treatment would, if these remedies acted on the cause of syphilis, utterly destroy it before it would take possession of the whole organism. But of 100 cases thus treated in NEUMANN'S clinic, none remained free from secondary symptoms. Again saturation of the organism with mercury or iodine does not prevent relapses, which have occurred up to fifty-five years after infection. Late syphilitic manifestations appears most frequently on the very sites of the early lesions, which would be impossible if the cause of the disease had been destroyed. *Per contra* mercury and iodine are often ineffectual in well-marked syphilis. By whatever remedies and in whatever manner treated from 6 to 22 per cent. of syphilitics remain uncured, that is, develop tertiary symptoms. From these considerations NEUMANN concludes that the symptomatic treatment of syphilis is the sole rational one, and that it acts by establishing a temporary or permanent immunity to the ever-present cause of the disease. The "chronic intermittent" treatment of Fournier referred to above is not to be recommended, as the results obtained by it are no better than by the symptomatic method.—*Brit. Med. Jour.*

Heart Complications in Diphtheria.

Dr. CLEON M. HIBBARD, of the Boston City Hospital, has published the results of a systematic study of the heart complications in a large number of cases of diphtheria treated in that hospital. The results of the *post-mortem* examinations in the seventy-two fatal cases which occurred are given in the report, and these results are largely drawn upon in formulating the following conclusions reached by the author:

(1) A rapid pulse-rate in diphtheria is to be dreaded. Death usually results when it exceeds 150.

(2) A slow pulse—60 in young children—is a sign often of serious heart trouble.

(3) Irregularities in the pulse occur in about ten per cent. of the diphtheria cases and are generally significant of cardiac complications.

(4) A systolic murmur at the apex is heard in about one case in ten, and its prognostic value depends upon the nature of the cause.

(5) A bruit de galop in diphtheria is a most fatal sign.

(6) After four weeks, with no heart symptoms in diphtheria there is little probability of subsequent cardiac trouble in the convalescence.

(7) All diphtheria patients who have tachycardia, bradycardia, irregular or weak pulse, a systolic murmur at the apex, vomiting or any paralysis—especially palatal—should be kept quiet in bed.

(8) The most important element in the treatment consists in absolute rest in bed.

(9) The vagus nerve in the fatal cases always had some evidence of degenerative changes. The weight of the heart was increased.

(10) The cause of death is usually from cardiac thrombi, dilatation or paralysis, produced most probably by the toxin of the diphtheria bacillus.—*Gaillard's Med. Jour.*

Treatment of Diarrhœa in Children by Sterilized Water.

MONGOUR says that the intestines of infants suffering from gastro-enteritis contain in great numbers, and in a higher degree of virulence, those bacteria which produce abnormal fermentations in the articles of food which they ingest. There are therefore two indications for treatment; first, to free the intestines as quickly as possible from the products of fermentation, and second, either to frequently change the contents, in which the bacteria develop, or else to keep these fluids in an aseptic condition. The first indication is secured by laxatives, but these cannot be many times repeated in the case of a weakened child. Asepsis of the intestine cannot with certainty be obtained. It is easy, however, to frequently renew the nourishment, although such children suffer more from lack of water than from lack of food. Moreover, water is one of the poorest media for the development of bacteria which it is safe to introduce into the stomach. The clinical results are in accord with this theory, and if a child is given from ten to twelve ounces of sterilized water daily, vomiting will cease at once, diarrhœa will soon disappear, and the temperature will fall so, that in a relatively short time milk can again be given. Absolutely no medicine will be required. MONGOUR has obtained most brilliant results from this simple treatment.—*Med. News.*

Sign of Grave Facial Paralysis.

DRS. BORDIER and FRENKEL have noted a new phenomenon in peripheral facial paralysis, which has considerable prognostic value. This is the rotation of the ocular globe from above downward during the act of closing the eyelids. BONNIER says he has encountered this sign in all cases that he has observed. FRENKEL and BORDIER explain it as an actual nervous discharge, voluntary excitation, having no action on the facial, discharges itself in another way. Dr. BONNIER thinks that it is a simple derangement in motricity. CAMPOS thinks that it is a physiological phenomenon becoming more manifest by the fact of a more considerable nervous impulse, and that the phenomenon is more manifest according as the impulse is more intense—that is to say, as the paralysis is more marked.—*N. Y. Med. Rec.*

Influence of Alcoholism in the Father upon the vitality of the Children.

THE mother, a robust, healthy woman, was married at 17 to a chronic alcoholic. During her nine years of married life she had five puny and ill-nourished children. Four of them died in the first ten days after birth from malnutrition, the remaining one by careful nursing attained the age of 4 years before succumbing. The mother then became divorced from her husband and remarried, this man, however, being perfectly healthy and strong; to whom she had 2 children. The eldest one, now 4 years of age, is the picture of health; the youngest, 14 days old, is just as stout and healthy. This marked contrast between the two sets of children is, in the absence of syphilis, very significant of the ill-effects of paternal alcoholism.—*Phil. Polyclinic.*

SURGERY.

Colles' Law.

HOCHSINGER discusses COLLES' law as it now stands, also the questions connected with it. His conclusions are as follows: (1) Healthy women who have been impregnated by syphilitic men can give birth to syphilitic children, but themselves remain free from syphilis all their lives. (2) Women who are pregnant with the fœtus of a syphilitic father, but free from contact infection from him, acquire through such a pregnancy a certain but very variable degree of immunity against syphilis, which has been the foundation of the so-called COLLES' law. (3) COLLES' immunity of the mother is the result of immunising substances derived from the spermatically infected fœtus, and is not absolute. (4) The exceptions to Colles' law concern women who, for reasons not always easy to discern, have only absorbed an insufficient quantity of the immunising substance during pregnancy, or in whom the requisite tissue activity for the establishment of immunity is absent. (5) A retro-infection of the mother from a spermatically infected fœtus, the so-called *choc en retour*, or "syphilis by conception," is clinically not proved, and not provable, although theoretically not difficult to establish. (6) Finger's hypothesis of the toxic nature of tertiary syphilis, and of the crypto-genetic tertiary infection of the mother, is incompatible with Colles' immunity, and is at variance with the pathological anatomy and clinical experience of early congenital syphilis. (7) Hereditarily syphilitic children infected by the father should not be suckled by the mother if it is her first child, and she is free from syphilis. If the mother has several spermatically infected children and is still free from syphilis she may safely suckle a child.—*Pac. Med. Jour.*

Adhesions of liver and gall bladder in association in the tumours of the female generative organs.

FREUND has made a careful study of the adhesions that may be found between tumors of the female genital organs and pelvic and abdominal viscera, especially the liver and the gall-bladder. These adhesions may at times be so dense as almost to make the operation of extirpation of a tumor impossible. They are found in cases not only of ovarian cysts but also of uterine myomata. A case is reported of marked adhesions in a patient, 58 years of age, in which tapping had been performed 20 times, dark fluid having been removed at each puncture. The patient presented signs of ascites, jaundice, cachexia, and edema, all of which seemed to indicate some form of malignant degeneration. Ovariotomy was performed under chloroform-anesthesia, the tumor proving to be an enormous polycyst of the ovary. Owing to the frequent tappings, adhesions were found everywhere from the liver and the diaphragm down, necessitating in addition the performance of cholecystectomy. The time occupied by the operation was three quarters of an hour. The patient made an excellent recovery. A second case occurred in a woman, 65 years of age, who presented a colossal multinodular fibromyoma of the uterus adherent to the liver, stomach, mesentery and peritoneum. The hæmorrhage from the liver at the time of separation was terrific. The patient, however, made a good recovery.—*Phil Med. Jour.*

Fractures.

DR. W. L. ESTES, in the *Internat. Jour. of Surgery*, says:—

I. Unless a fragment is threatening to break through the skin the fracture should never be reduced except by the physician, and then only when apparatus is at hand to keep the parts in permanent apposition.

2. Men carrying an injured person should not keep step as the jar to the wounded part is much greater.

3. Strychnia for shock, morphia for pain, but no alcohol.

4. Always give anesthetics for reduction of a simple fracture. It is better and easier to reduce and set compound fractures without anesthesia.

5. It is very rarely necessary to make a patient go through the double agony of temporary and permanent setting of the broken bones.

6. In simple fracture gentle rubbing of the ends will assist in getting rid of shreds of tissue which invariably are caught there.

7. Nowadays a surgeon will rarely be satisfied that a bone is properly set, until verified by the X-Rays.

8. Plastic splints, preferably plaster-of-paris, are surely the best apparatus when they can be applied.

9. Ambulant treatment is coming more into vogue. No simple fractures require constant confinement to bed, except of the innominata and upper third of the femur.

10. It is not necessary and is sometimes very harmful to wait for swelling to disappear, before putting on a permanent dressing.

11. A well-applied splint with good apposition of fragments should not be removed too early. It is not necessary to apply massage early in ordinary cases.

12. Proper time for massage is two or three weeks after fracture of upper extremities and four or five weeks for lower extremities—if the bones are slow to unite firmly.—

Simple Method of Curing an Ingrowing Nail.

TARDIF says that he has been able to cure all cases of ingrowing nail, without recourse to the knife. He proceeds as follows: With a flat probe, or a match, he slips a bit of cotton between the edge of the nail and the inflamed flesh. Another strip of cotton is put along the outer margin of the ulcerated area, and the space between these two strips of cotton, and which is occupied by the ulcer, is thickly powdered with nitrate of lead. The whole is covered with cotton, and the toe is bandaged. The dressings are repeated the following day, and every day until the incarcerated edge of the nail is painly visible. Usually four or five dressings suffice. Then with patience the edge of the nail is lifted away from the flesh and a bit of cotton is introduced under it, to keep it up. As it grows it will gradually take its proper position above the flesh, this having in the meantime shrunk and shriveled by reason of the applications of lead nitrate. The lead is to be discontinued as soon as it appears that the exuberance of the fleshy bed of the nail has been overcome. The difficulty seldom recurs. If this does happen it is necessary to repeat the treatment from the beginning.—*Med. News.*

Intestinal Invagination in Infants.

CORDUA reports twelve cases; two were cured by energetic massage, enemas and the insufflation of air. Five recovered out of seven operated on during the first two days; two died from shock. Three were operated after the second day, all dying from gangrene and consecutive peritonitis. From a review of 184 cases in literature, he concludes that in operating great care must be practiced to avoid hernia later. In a case of gangrene there should be resection, enterotomy, entero-anastomosis, but infants under a year can not stand such a serious operation and those over a year but little better.—*Gaz. de Osp. ed. Clin.*

OBSTETRICS AND GYNÆCOLOGY.

Prolonged Retention of Placenta in Recurrent Abortions.

ON July 10th I was summoned to a woman, who had a severe uterine hæmorrhage following an incomplete abortion three weeks previously. She was in a profound state of collapse, rambling at intervals, with extremely feeble pulse and sighing respiration. There was visible proof that she had had a great loss, and on examination large blood clots were found blocking the vagina; the os was contracted, and the cervix bore evidence of long-standing lacerations. Ergot was given in full doses, and after a time the bleeding ceased.

She went to stay with friends on June 13th; while there she had a fright, and aborted on June 18th, being then in the fourth month of gestation. She was assured that everything had come away, but being sceptical as to the expulsion of the placenta, she resolved, after lying up for a few days, to return to her home here on June 24th. I saw her soon after her arrival and enjoined absolute rest in the recumbent position. For the following three weeks she had neither loss nor fœtid discharge, and latterly was feeling quite well.

The placenta was expelled by natural pains on the morning of July 11th; the membranes were degenerated, but the placenta was fresh and well formed, and no odour of decomposition could be detected.

This is the eighth abortion, and in all—with one exception—the placenta has been retained for periods varying from two to six weeks. She never goes beyond the fifth month of pregnancy, and usually makes a rapid recovery. She is strong and well-built, aged 35, and there is no history of syphilis. Her first three children were born at full time, and in each case forceps were used. At the third parturition extensive laceration took place, and ever since she has suffered from a vesico-vaginal fistula which has baffled the efforts of several hospital surgeons to alleviate; from this period also dates the commencement of her abortions.

Other important features worth noting in this case are (1) the long distance travelled soon after the fœtus was expelled, the railway journey alone occupying nine hours; (2) the flaccidity of the mammary glands continuing long after the expulsion of fœtus, the milk appearing on the third day after placental expulsion, when the quantity became abundant—this condition has existed in all the eight miscarriages. I can personally verify its truth, having attended her in the last four abortions; (3) absence of septicæmia. B. WIGGINS L.R.C.P., L.R.C.S. Edin.—*Brit. Med. Jour.*

Fœtus in Broad Ligament: (?) Criminal Abortion.

M. HIVET, of Paris, related at the April meeting of the *Société Obstétricale et Gynécologique de Paris* a case of perforation of the pregnant uterus, a three-months' fœtus being forced into the parametrium between the layers of the left broad ligament. This case is of great importance in respect to evidence relating to suspected criminal abortion. A multiparous woman, aged 41, was admitted dying into Professor LE DENTU'S wards in the Hospital Necker one day last March; she died within half an hour of admission. The period had been absent for three months and a half. For three days the woman had complained of violent hypogastric pains and on the night before admission there were symptoms of internal hæmorrhage. A practitioner detected retro-uter-

ine hæmatocele involving the left fornix. At the necropsy the coils of small intestine in the pelvis were found covered with the exudation familiar in the lowest type of peritonitis. There was no blood in the peritoneal cavity, but the layers of the left broad ligament were separated by a large hæmatocele, which extended into the vesico-uterine pouch forwards and posteriorly passed behind the peritoneum into the lumbar region. The fundus uteri reached above the pubes; the tubes and ovaries were free from any disease or abnormality. On laying open the distended left broad ligament, a three month fœtus was found lying in a mass of clot and blood. The pouch in the broad ligaments formed by the hæmorrhage was now to communicate with the uterine cavity by a circular perforation as large as a five-franc piece, situated in the left and anterior aspect of the supra-vaginal part of the cervix. The placenta was attached to the fœtus, and lay in the abnormal pouch. Its original seat was the anterior aspect of the inner surface of the uterus. There was no disease of the walls of the uterus, and no history of an external injury. Spontaneous rupture of the uterus at the third months is unknown and out of the question in this case where the walls were normal. The perforation was evidently due to an internal injury, most probably caused by a rigid stem. When once produced, it is easy to understand that the uterine contractions set up by the injury managed to force the fœtus and its placenta into the parametrium. No doubt septic infection caused inflammation of the peritoneum, itself unwounded. Had the patient recovered for awhile, and died later, after the healing of the uterine wound, the condition might have been taken for a rare variety of extra-uterine pregnancy.—*Brit Med. Jour.*

Painful menstruation—causes and treatment.

IN reviewing the subject, LAWRENCE presents the following conclusions:

1. Painful menstruation is not a disease, but merely a symptom found in various pelvic diseases.

2. Those classifications which place it as a disease are misleading and should be discarded.

3. The physiology of menstruation, a thorough knowledge of pelvic pathology, and a broad, careful habit of study and thorough case-taking, are necessary in order that menstrual pain be rightly construed.

4. Many of the cases, due to the uterus, tubes, or ovaries, may be cured in the early states by simple means, whereas neglect places them in a position demanding serious operative treatment.

5. Painful menstruation in a sterile patient is strong evidence that there is tubal inflammation with occlusion of tubes.

6. Operative procedures should be reserved for those cases in which there is a positive pathological indication; neurotic and anemic cases being treated by other and more appropriate measures.

7. As a symptom menstrual pain is often of such grave import that it should always receive the most painstaking study. If this be the rule, many a case will be cured without operation.—*Canad. Prac.*

PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

Relation of the Thyroid Gland to the Female Genitalia.

By Dr. G. N. DE VOOGT. The view that the thyroid gland exerts a specific action upon the genitalia is not new. As early as 1836 WUERST stated that this organ was of great significance in the sexual function. But, in man at least, this is certainly not true, as later experiments, particularly those of Gley, have shown. Some time in the '80s, H. FREUND sought to determine this close relation between the thyroid and the female genitalia, basing his opinion especially upon clinical experience. The majority of cases of struma are found at the time of puberty and of senile involution of the genital apparatus. Furthermore, Basedow's disease occurs more often in women than in men. It is also true that experimental thyroidectomy is followed by alterations in the ovaries, which have been accurately described by HOFMEISSER. But these arguments contain nothing positive? for, because experimental thyroidectomy not only causes alterations in the ovaries, but also in the whole organism, no one will observe anything therein which points to an intimate relation between the thyroid gland and the female genitalia.

If we further consider that great alterations occur in the organism during the periods of puberty and of senile involution, and that the appearence and cessation of menstruation is only a physiological symptom of these alterations, cannot the occurrence of struma during these periods be a pathological symptom of these alterations? And would not this better explain the occurrence of struma than the view that an intimate union exists between struma and alterations in the female genital apparatus? For even in men we find during these years of life the greatest number of cases of struma.

How the frequent occurrence of Basedow's disease in women can be an argument in favor of FREUND'S view, is a problem which the author confesses his inability to solve; for true as it may be that Basedow's disease is relatively rare in men, it is certainly not a primary affection of the thyroid gland. Furthermore, there are a number of cases of Basedow's disease in which no struma whatever is found.

In reference to FREUND'S theory, the author reports the case of a fifteen-year-old girl with struma and a dermoid cyst of the ovary, upon whom an operation for removal of the tumor had no effect upon the struma. The girl was at the period of puberty, and the appearence of the menses and the first observation of the struma were almost synchronous.

What an important support, says the author, could this case give to FREUND'S hypothesis if the struma had disappeared after removal of the ovarian tumor—for, he says, *cessante causa cessabit effectus*—and in the light of this hypothesis the tumor of the ovary would then be the result of the increased ovarian irritation and have disappeared after the ovariotomy. But it was not thus to be! In the author's case the struma remained unaltered, and of the same size.

In conclusion the author states that the opinion expressed by him some time ago in his inaugural dissertation, to the effect that as yet there is no positive proof of a specific function of the thyroid gland in its relation to the female-genital apparatus, is strengthened by the observation of the case reported.

Trichinosis.

T. R. Brown gives an account of investigation made by him on trichinosis, with special reference to the increase of the eosinophilic cells in blood and muscle, the origin of these cells, and their diagnostic importance. He claims to have demonstrated: (1) In a case of acute trichinosis an extensive leucocytosis with great absolute and relative increase in the number of eosinophilic cells in the blood, associated with a coincident decrease in the quantity of neutrophilic elements. (2) From the examination of the specimens of muscle removed during life, besides the peculiar degenerations of the muscle, a longitudinal splitting of some of the fibres, a remarkable transverse splitting of others, a great proliferation of nuclei, about many of which vacuoles are seen, and large numbers of polymorphonuclear eosinophilic cells, which were especially prevalent in the more degenerated areas. (3) In a second case after death, besides similar changes in the muscle, large numbers of eosinophiles throughout the infested portion. (4) In two other cases during life a great increase of the eosinophilic cells in the blood, with a coincident increase of the polymorphonuclear neutrophiles, associated with leucocytosis, though of less extent than in the first case. (5) In pieces of muscle removed in these last two cases changes in most respects similar to those cited in the first case, but of less degree. (6) The similar character of the nuclei of the eosinophiles and the neutrophiles both in the blood and in the muscle, and the presence in the first case of certain cells which might be regarded as forms transitional between neutrophiles and eosinophiles, suggesting the possibility that the increase in the latter elements may in these instances take place in the muscle by direct transition from the neutrophiles. From these observations BROWN thinks it fair to conclude: (1) That there is a marked decrease in the percentage of eosinophilic cells in the blood in trichinosis. (2) That this increase may be used as a diagnostic sign in this disease. (3) That this disease in its sporadic form is more common than has hitherto been supposed, as shown by the discovery of the three cases above described, within a comparatively short period, at the Johns Hopkins Hospital. (4) That a systematic examination of the blood should be undertaken in cases with indefinite intestinal, muscular, or articular symptoms, in the hope that in some at least of the hitherto doubtful cases a diagnosis may be reached.—*Brit. Med. Jour.*

On Infection with a Para-Colon Bacillus, with all the Clinical Features of Typhoid Fever.

THE name para colon is given to an organism between the typhoid bacillus and the colon, as its properties are so closely allied to both. The patient developed an abscess in the neck about the œsophagus, showing at the same time constitutional symptoms. From the pus an organism was obtain in pure culture, actively motile, decolorized by Gram; it did not liquefy gelatine; clouded bouillon without a film, and a few gas bubbles in glucose agar-agar: grew on potatoes as a yellowish-green film. The two most essential distinguishing points from the colon family were that it produced no indol and did not ferment lactose, while its fermentation of glucose and its growth on a scraped typhoid culture distinguishes it from the typhoid. It had a specific agglutinative reaction with the serum of the patient, which gave no reaction as the typhoid bacilli.

Clinically, rose spots were present; the spleen was palpable; the urine gave the diazo reaction; there was no diarrhœa. Some cases of so-called typhoid fever not responding to the widal reaction with typhoid bacilli may be cases of a paracolon injection.—Dr. GWYN, *Prac. Med. Jour.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Progress in Public Hygiene.

Conveyance of infectious diseases by means of the air.—Dr. E. GERMANO reports the results of a series of experiments in continuance of those already reported. The later series relate to diphtheria, erysipelas and pneumonia. He reports the following conclusions in regard to the spread of diphtheria: (1) The diphtheria bacillus can resist drying for a long time, both in the membrane, in the tissues and when present in dust. (2) Increased rapidity in drying, even by means of sulphuric acid, does not effect the resisting power of the bacilli either in the tissues or in the dust. (3) The bacillus survives better the more it is surrounded by dust, probably on account of its greater protection from oxidation. (4) When dried completely, the bacillus retains its virulence until it dies. (5) the air can carry diphtheria while living, by means of dust. With reference to streptococci, he says: (1) The power of surviving the drying process depends largely on the mode in which this is carried out, and the material with which it is mixed. (2) At any rate, its power of resistance is great and can continue for months. (3) The rapidity of drying has no effect on the vitality of the streptococci. (4) The resisting power increases with the amount of material in which it is implanted, and which protects it from the air. With reference to the streptococcus pneumoniæ, to which he attributes pneumonia and sometimes meningitis, pleurisy and acute nephritis he concludes: (1) The diplococcus is a micro-organism which can resist drying for a long time. (2) It survives better when dried than when moist. (3) As it can under some conditions exist in a dry condition for a long time, but not to the same extent as the *Streptococcus erysipelatosus*, the possibility of its conveyance through the air is established.—S. W. ABBOTT, *Boston Medical and Surgical Journal.*

Four Arguments against Noise.

THE *Philadelphia Medical Journal* for July 16th says:—"There are four reasons why every physician and every other good man should wage persistent war against unnecessary noises:

1. Because in a certain and an increasing number of sensitive and "well" people such noises distinctly and in carrying them over the easily passed line between comparative health and the sick and "unfit for service," thus surely increasing the sick-rate.

2. Because they decidedly destroy the vital and restorative powers of the sick, and thus clearly increase the death-rate.

3. Because they dull and brutalize the nervous systems of those who can and do learn to withstand their pathogenic influences.

4. Because they serve to make the sensitive and cultured, who are able to do so, separate themselves in their search for quiet from the masses, who must endure, thus serving to intensify the license of the noise-makers, by lessening the checks upon their crimes. The separation of the community into classes in exaggerated in this way, and these, growing wider apart, make impossible desirable helpfulness, sympathy, and mutual understanding of each other. Noise is undemocratic; it should be un-American.

We indorse these sentiments and think that it might be well to begin with the suppression of the newsboy and the maddening cry of 'Extry speshul! jyest aaout.'"

Sterilization of Milk.

Professor Froster, Strassburg (British Medical Association meeting), said that one of the pieces of advice which hygienists gave was not to use milk from cows until it was boiled, not because the milk came from the animal, but because it could be contaminated by contact. Milk by boiling took a peculiar taste, the colour became yellow, and the general flavour of the milk was lost to a certain degree. Many people, therefore, did not like boiled milk. The question was, therefore, was it necessary to boil the milk in order to kill the germs of disease which were in the milk?

The process used was Pasteurisation of the milk. But this as ordinarily carried out, was insufficient to kill all infective germs with which milk might be contaminated. Instead of raising the temperature of the milk to 150° F. or 160° F. for one minute, it should be kept for a long time at that temperature. The flavour of the milk was retained, and in no way altered by the treatment. This process has been adopted by the milk companies in Amsterdam.—*Treatment.*

Legal Relations of Mania.

Dr. Edward C. Mann says that it is important for the lawyer to bear in mind the following points relating to mania:

1. In mania, consciousness, memory, and reason may remain intact even in the midst of the most violent paroxysms. The patient is whirled about in an emotional storm.

2. The maniac's senses are deceived and confounded. Illusions and hallucinations of sight are very common.

3 The persons with whom the insane man associates are apt to derive their characters from his delusion.

4. Real impressions on the organs of sense become, as in dreams, the materials of imaginary scenes.

5 The strange antics of the insane man are the effects of his delusion.

6. The violence of the madman is often not the effect of mere passion, but of his delusion.

7. The maniac, if of a reserved disposition, or when impelled by a strong motive, can conceal his delusion.

8. The acts of the maniac often evince the same forethought and preparation as those of the sane.

9. The maniac, in spite of his cunning, is easily imposed upon and managed.

10. Maniacs in confinement are often conscious of their state, and know the legal relations in which it places them.

In deciding medico-legal questions, it is quite necessary to know that these are some of the leading characters of mania.

The lawyer should be aware of the fact, which at times is of considerable medico-legal significance, that mental disease may arise as a result of the revolution in the system of either sex occurring at puberty. Masturbation also causes it; uterine or ovarian disease likewise. The condition of gestation or pregnancy may give rise to it. Mental disease may appear after parturition, when it is termed puerperal insanity, and it is not at all uncommon in a mild form. Obscene words and self-accusations of impropriety and delusions connected with sexual matters are all common at this time. The period of lactation may be associated with mental disturbance. The climacteric period in women not uncommonly gives rise to nervous troubles which may end in insanity Insanity may be among the sequelæ of fevers. The rheumatic and gouty poison may cause insanity at times. Syphilis and phthisis may both give rise to and be associated with mental disease, and alcoholic insanity is very frequent, and is accompanied bp hallucination of hearing and other hallucinations Finally we have the insanity of old age or senile dementia.—*N. I. Med. Jour.*

THERAPEUTICS AND PHARMACOLOGY.

Purgatives and "Debility."

With respect to purgatives, there has not been that extreme variation in practise which has obtained with regard to some other remedies; but I think, notwithstanding, that the fashion of late years has been to neglect them *far too much*, although in one form or another they are perhaps the most universally applicable, and certainly among the most potent and most useful, remedies we possess. The abandonment of their employment is excused, one hears again and again, owing to the fear of their producing "debility."

I believe that few words in the English language have produced so much harm as this word "debility." Debility seems to be the *bete noire* of the present medical world. Men speak of it as if it were an entity instead of its being, as in fact it is, an effect—a result; and it was often to counteract this state that, a few years ago, stimulants were so widely given. It is disease which produces debility, and if these purgatives remove the morbid state, they often prove the most strengthening as well as the most healthgiving of remedies. "Talk about champagne," said Byron, in one of his letters, ",there is nothing which cheers your spirits up like a dose of Epsom salts." And, in a sense, he was right. Seriously speaking, sulphate of magnesia is one of the best forms of saline aperients, and the old-fashioned stock medicine of the surgery and of hospitals, the "Mistura alba," has more cures due to it than will ever be achieved by a dozen of the new fashioned remedies which have lately inundated the advertising pages of our journals. I say that Epsom salts have gone out of vogue, but a tacit compliment is, notwithstanding, constantly being paid to them, for people still find the efficacy of the solutions which contain them, and they take our old friend in a more expensive form, under the names of Friedrichshall, Hunyadi Janos mineral waters.

I am quite aware of the experiments by which it has been proven, or said to have been proven, that mercurials are not cholagogues. Well, I cannot discuss that matter here; but this I know, that a good dose of calomel or blue pill, given in the olden fashion, and followed by some sulphate of magnesia or other good saline purgative in the morning, will bring away copious motions of yellow, green, or black matter such as you do not get otherwise; and one feels, after that, light and buoyant and bright, and with a head clear for work—a state such as one has not felt in, perhaps, for weeks before: the melancholy—the black bile—has been removed. Charles J. Hare "Good Remedies—Out of Fashion," in *The Prac. Med. Age.*

Restoration of Bleeding and Indications for Venesection.

The *Journal des praticiens* for July 9th says that at a time when the masters of French medicine are labouring for the rehabilitation of bleeding, it is interesting to note that an analogous campaign is being carried on abroad. According to M. Kaczer (*Wiener klinische Rundschau*), the principal indications for phlebotomy are: 1. Among diseases of the nervous system, meningeal inflammations, cerebral congestion, and apoplexy furnish positive indications. 2. In diseases of the kidneys, with generalized œdema and with uræmic symptoms, bleeding acts in two ways—namely, as a depleting process and as a sudorific. 3. In circulatory troubles consecutive to cardiopathies, it unloads the venous system and augments the arterial tension. 4. Its efficacy in pneumonia is remarkable. It should be had recourse to at the outset. It eases the patient by suppressing the pain in the side and rendering the respiration and

circulation freer. It diminishes also the engorgement and pneumonic exudation. If the heart should ultimately flag there need be no hesitation in repeating this little operation. 5. In chlorosis, one or more bleedings at from four to five weeks' interval are a sovereign remedy. The more the blood is altered, the more is bleeding indicated. 'A simple method of appreciating the alteration of the blood without the hæmatoscope and the hæmatometer, which are but little used, is as follows: Some cubic centimetres of blood are collected in a straight tube and allowed to remain for twenty-four hours; two thirds should then be occupied by the clot, above which should be seen a fine red layer composed of leucocytes, while the upper third is occupied by serum of a straw-yellow color. The more the appearance differs from this type the more the blood is altered, and the more is bleeding indicated. We fancy this new propaganda will find the invincible prejudice of a large mass of heathen very difficult to overcome.—*N. Y. Med. Jour.*

Thyroid and Thyroid Therapy.

HALDOR SNEVE, in the *Northwestern Lancet*, concludes a resumé of our present knowledge of this subject, as follows:—

1. The thyroid gland produces a secretion of the greatest importance to the metabolism of the body. Absence of function produces cretinism, if congenital; myxœdema, if acquired.

2. Simple hyperplasia (simple goitre) does not produce marked pathological disturbance, but he believes it to be a larvated form of exophthalmic goitre. So-called "nervousness" can be found in the vast majority of these cases.

3. Hyperplasia associated with disturbance of the cervical sympathetic is the disease known as exophthalmic goitre.

4. Surgical interference in diseases of the thyroid gland should be limited to the removal of neoplasms; thyroidectomy in exophthalmic goitre is unphysiological, irrational, and dangerous.

5. In the majority of cases of exophthalmic goitre, medicinal and hygienic treatment, rest, galvanism through the neck (2 to 5 M.A), tonics, sodium phosphate and thymus gland will effect amelioration. In cases refractory to medical treatment, where life is threatened, section of the cervical sympathetic should be practiced.

6. Many cases of neurasthenia are cases of masked exophthalmic goitre, and should be treated accordingly.

7. Thyroid therapy is specific in sporadic cretinism, myxœdema and simple goitre, and removes obesity.

8. Thyroid extract increases the unpleasant symptoms in exophthalmic goitre, and is a reliable test in the masked form of this disease.—*Pac. Med. Jour.*

Alkaline Treatment of Eczema.

THE *Journal des praticiens* for 30th April attributes the following formulæ to Brocq:—

1. R Sodium benzoate ... ... 2 to 5 parts;
Sodium bicarbonate ... 12 „
Syrup of fumitory, Syrup of gentian, Syrup of saponaria, each ... 150 „
M. S.: From two to four tablespoonfuls daily.

2. R Sodium bicarbonate ... 7½ grains;
Lithine carbonate, Lithine salicylate, each ... 3 „
Carbonic-acid water ... 4,500
M. S.: Two glasses daily.

—*N. Y. Med. Journ.*

A good General Tonic.

R Strychninæ sulphatis ... ... gr. $\frac{1}{30}$
Acidi phosphorici diluti ... mⱽ.
Ferri phosphatis ... ... gr. i.
Quininæ bisulphatis ... ... gr. i.
Glycerini ... ... ℥ ss.
Elix. aurantii ... q. s. ad ℥ ss.
M. et ft. solutio. S. Take before each meal.

—WINSLOW ANDERSON.

Correspondence.

THE PLAGUE IN INDIA AND THE LOYALTY OF ITS DOMICILED BRITISH POPULATION.

TO THE EDITOR, "INDIAN MEDICAL RECORD"

SIR,—That doughty champion of Freedom and Justice, the *Bengal Times*, writes as follows under the heading of of "Plague and Loyalty":—

"Two questions, with apparently small and indirect connection between them, have been raised by our talented medical contemporary of Calcutta—*Indian Medical Record*. We allude to them as *apparently*, because a first glance fails to disclose their relationship, but a closer inspection betrays that they have something in common in certain exceptional circumstances. Our contemporary's article strives to establish a link between an alleged pestilence supposed to have visited Calcutta within this year, and Anglo-Indian loyalty; and we admit his endeavour has not failed. Plague and loyalty are abstractedly estimated to be as wide apart, as north and south, but viewed in a light that suggests ties of association, they wear a different aspect. Firstly, it is consistent with our object to ask if, at any time, this year, Calcutta has had a plague visitation, and, we believe, taking Calcutta's population as a whole, an affirmative reply will not find ready acceptance. Decidedly, our contemporary holds that a negative theory would meet with far more general approval, and we agree with him. He observes:—

"We have consistently maintained that Calcutta has not had a visitation of true plague. We say "true" plague, because every standard work on Scientific Medicine defines plague as a contagious endemic disease," and this Risley plague (there is no other name for it) has been neither contagious nor endemic."

Hence, then, whatever else it may have been, Calcutta's visitant has not been true plague, unless, indeed in a disguised and attenuated form. It was sporadic, and its fatal effects manifested themselves in so insignificant a proportion, that, to call it a plague, would be an absurd misnomer. Yet, we cannot close our eyes to one scathing fact, that official opinion favoured its entity, and it is but courteous to allow that expert testimony, even when State-subsidised, is not unentitled to a certain amount of respect. If we admit it exists, and that it opposes itself to widely-recognised non-official talent, we may feel that some covert impulse is at work, checking its full exercise, but its presence must be acknowledged, if only in a latent condition. Upon its value, however, we are not sufficiently technical to advance any judgment. Our contemporary says:—

"Judged by the clinical and epidemiological manifestations of the disease with which Calcutta was afflicted, Mr. RISLEY, one of the Secretaries to the Bengal Government, and a few of his State-paid medical advisers upheld his opinion that our city was plague-infected. Their prophecies regarding its spread have been as false as Balaam's and the opinion of the medical experts is so utterly disgraced and confounded, that, it does not find practical or logical support from either the clinical or the meteorological behaviour of the strange febrile disorder which they

terrifyingly, hailed as the Plague. So that, from start to finish, this scare, created and fostered by State-officials, has proved itself to be a huge, unmitigated medical fraud."

How our contemporary contrives to institute a comparison between Balaam and Mr. Risley and his councillors, we do not quite grasp, but we let that pass, with a slight suspicion that, having opened their mouths to rebuke those who differed from them, they might more appropriately be likened to—eh—but, as we have said, perhaps, it is better to slur over that episode. It is, however, beyond denial, that, their predictions, instead of curses have been converted into blessings, and that Calcutta has really escaped a scourge that might have decimated her. Our contemporary's language appears to us somewhat involved and inconsequential, but we hold with him entirely in his main contention, and it seems to us he is right in his insistence :—

"It is no disloyalty to speak the truth fearlessly, even though such expressions challenge the policy of the Government and lay bare its weakness and rottenness. It is false loyalty, disastrous alike in its duplicity and in its consequences, to betray the Government into a course of action that is positively dangerous both politically and financially, thereby divorcing the affections of the ruled and wrecking the reputation and prestige of the rulers."

Without doubt, such a course as our good friend decries, would be contemptibly dishonest, and fraught with results too lamentable to foresee, and too sad easily to avert ; and it is clear that Government, in its so styled plague regulations, was seduced, by misleading representations, into a policy, which, whilst it was in force, compassed illimitable mischief But we think there is something to be said in its defence. Government was hoodwinked, and displayed much infirmity of purpose, we will even allow, willingly, in some instances , yet we feel we cannot but admit that, its intention was good It suffered itself to become blind and deaf, where it should have been vigilant and wary, still we think that it acted from indecision and hesitation to precipitate itself on the vicissitudes of what it deemed a growing calamity, without taking into its confidence—misbegotten, indubitably—those likely to suffer more severely in ignorance, than with a full knowledge of an impending and irresistible evil. Its act was incautious, and calmly viewed, unstatesmanlike, yet we think intended to be merciful in its repressive prescriptions. Our contemporary concludes severely, though not altogether unjustly, and although we are far from an apologist for Government, we cannot but allow that, but for a panic injudiciously fanned into a despondency born of desperation, we should have had a far different experience to relate and far different sentiments to endorse. Our contemporary says :—

"We maintain that the *Englishman* and the Bengal Plague Commission are solely responsible under the misguiding influence of medical men, who simply said what their paymasters bid them, that the whole commercial machinery of the metropolis was dislocated, its trade utterly paralysed, and the domestic peace and happiness of its European and Indian inhabitants wantonly disturbed for almost half-a-year. We are second to none in our loyalty to the Government. The British Government of India is the greatest of Providential blessings in the destiny of this Oriental Empire, but, while admitting that this is so, we as frankly and as fearlessly declare that the policy of the Indian Government is not only misguided and wrong in its effect on the peace and welfare of the domiciled European and Indian communities, but it is from a sense of deep and earnest loyalty that we warn the Government that its treatment of these communities, more specially the domiciled Anglo-Indian community has created the intensest feelings of disaffection towards such policy, and it behoves a Government, if actuated by a desire to deal righteously and impartially with its subjects to disperse and eradicate the causes of such disaffection, as to do otherwise is to be unrighteous, unjust, and impolitic."

With a wearied brain, and a sick heart, we have impressed upon Government, from time to time, that its policy towards our domiciled Anglo-Indians is founded in error. Anglo-Indians can endure much—let their past brave deeds testify to that—and their inborn instincts of loyalty and fealty to our sovereign and to her constituted agents, have restrained them hitherto from any overt demonstration of discontent, any open and clearly emphasized expression that the tension upon their patience is greater than they can bear with impunity. What form their outbreak will assume, we do not know, nor need we speculate. Of this fact we are certain, that Government, by its policy of ignoring Anglo-Indian claims and by treating them with irritating contempt, is practically applying a slow fuse to a mine that will some day, we fear, explode a with crash that will resound throughout her Majesty's Eastern Empire. It is useless, if not criminal, to conceal from our rulers that we are bound to have our rights—peacefully, if we can—and our aim is to obtain them through the agency of reason pleading for justice Our pleas have already received technical recognition, in isolated instances of our members being singled out for important posts in State employment, such as imported talent could not be found to fill, and we are not unmindful of this admission of our superiority. We never sought it. Circumstances forced our Kellners and Hollingberrys and several others into notice, and into positions that earned for them a public declaration of their merits There are many to succeed them, many to restore to India a share of patronage usurped by our India Office and Secretary of State ; for them we are doing battle. There cannot be a particle of self-interest in anything we advance or advocate, as our day is past. Government cannot give us anything acceptable to our pride, but it can, and unless we stupidly over-rate our growing and strengthening resources, will, grant to our children, what the stress of untoward events has prevented our obtaining for ourselves. Government will do well to ponder over all this."

Yours &c., An-Anglo-Indian.

SOME MORE COMPROMISING CALCUTTA MEDICAL ADVERTISEMENTS.

To the Editor, "Indian Medical Record."

Sir,—Since exposure of certain flaunting medical advertisements has already done some good, I hope a repetition of exposure in the *Record* will cause a few more of our offending brethren to hide their unworthy heads in shame. I therefore send you the following advertisements taken chiefly from the *Statesman* and other native papers :—

Maitra & Co.
Homœopathic Pharmacists, Book Sellers, &c.,
45, 40: 47, 48 & 49, College Street, Calcutta.
Importers from Europe and America.
Under the Supervision of
Dr. B. B. Maitra, M.B.,
Late House Surgeon, Chandney Hospital, Calcutta. Late Resident Accoucheur and Goodeve Scholar, Midwifery Ward, Medical College Hospital.
Price lists on application.
Specific for Chronic Malarious fever, Re. 1 per bottle.

Novelty of Ayurvedic Medicine.
Ayurvedic Pharmacy,
18/1, Lower Chitpore Road.
Fouzdari Balakhana, Calcutta.

Kaviraj Nagendra Nath Sen, Member, Surgical Aid Society, London, Society of Chemical Industry, London, Paris Chemical Society, Calcutta Medical Society, and Indian Medical Association, Physician, Surgeon, Accoucheur, practices the Ayurvedic system of medicine after having obtained a Diploma at the final examination of one of the Government Medical Institutions of the country.

Specifics for all ordinary diseases like Fever, Cough, Asthma, Phthisis, Diabetes, etc., including disease brought on by irregularities of all kinds, Catalogues containing full accounts of diseases and remedies are transmitted on application. Prescriptions, with or without medicines, sent to every part of India and Ceylon, Cape Colony, and the British Isles, on receipt (by post) of full accounts of diseases.

Thousands of unsolicited testimonials from every quarter.

Physician S. N. Ghose.

Specialist in nervous debility, nervous weakness, nervous exhaustion, loss of tone in the blood. Rheumatism, Paralysis, Urinary diseases, Hydrocele, Scrofula, Liver and Spleen and also in Female diseases Gold, silver, and other medicines electrically pulverized, and metallic liquid and oil (electrically prepared) for application, tested and analysed by an eminent European, and certified by Dr. Doyal Chunder Shome, Rai Bahadoor, late Teacher, Campbell Medical School, are void of Mercury or any poisonous drugs. Wonderful effect within a week. Radical cure guaranteed, May be consulted at any hour at his house. No. 21, Wellington Street (Upper Flat.)

Law & Co.
Homœopathic Chemists, &c.,
92, Bow Bazar Street, Calcutta.

Dr. J. N. Chackerbutty attends daily from 8 to 10 A.M. and 6 to 8 P.M. *Cataract* and other obstinate disorders of the eyes are most successfully treated here. Best arrangements have been made for *Mofussil patients.* Particulars on communication. *Catalogue free on application.* Rubinis Camphor *for Cholera*, As. 12 per phial. Harry's Pillet, an infallible remedy for malarious fever. People tired of using other medicines should use it. Price, As. 8 per phial.

Electro-Homœopathic Dispensary.

First Established Mattei Agency in 1890. All our medicines are indented directly from Bologna in original tubes and phials. Experienced Electro Homœopath, Dr. R. P. De, first authorised Agent, late of 93, Bowbazar Street, attends daily from 8 to 9 A.M. and from 6 to 8 A.M.

Electro-Homœopathy aims at the very root of the disease, and therefore can cure even those maladies which are yet known to be incurable. Selected Books, Theobald Rs. 3-13 ; Gliddon, Rs. 3, Muller's Guide, Re. 1.

Chuckerbutty & Co.,
34-1, College Street, Calcutta.

Dr. B. L. Roy, C.M., Guarantees without the help of probe and knife, to cure Carbuncle, Liver Abcess, and any threatening Abcess ; Necrosis, Sinus, Fistula and all bad Ulcers, etc. Roy Bahadoor Dr. and Lall Dey, C.I.E., F.C.S., writes : "I state Necrosis which a cousin was suffering for years, pronounced incurable by Surgeon of the City, without operation, is cured by Dr. B. L. Roy, simply by external application. I safely recommend his able treatment."

Dr. B. L. Roy.
67-1, Nimtola Ghat Street, Calcutta.

Electric Treatment Rooms, 89, Beadon Street, Calcutta. Toothache and Painful Caries cured without extraction or pain. Organic weakness, Paralysis, Lumbago, Hysteria, Neuralgia, Rheumatism, etc., cured. Dr. Ashutosh Ghose, L.M.S., late Resident Surgeon, Campbell Hospital.

King & Co.,
The New Homœopathic Pharmacy,
83, Harrison Road, Calcutta.

Under the distinguished patronage of Dr. W Younann, M.B., C.M., B. N. Banerji, M.D., D. N. Roy, M.D., and all the other leading Homœopathic physicians of the country.

Just received an import of medicines, Books and Sundries per S. S. *Bavaria.* We keep only the medicines of Messrs. Boericke and Tafel of America. Try them and realise their superiority to others. They are the cheapest because the best.

We have engaged the services of an able physician of the town who will send advice to patients in the Mofussil free of charge.

The Plague and Its Curative and Prophylactic treatment by D. N. Ray, M.D., Price Re. 1. Correspondence solicited. Catalogue free.

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48, Dhurrumtollah Street, Calcutta.

Consultation Department for General Diseases of Women and Children, etc. G. Manook, M.B., C.M. (Edin,), Physician and Surgeon, attends daily from 8 to 10 A.M. and 4 to 6 P.M. G. T. Leopold, Personal Assistant to the

Late Dr. T. E. Charles, Professor of Midwifery and House Surgeon, Midwifery Wards, Medical College Hospital, can be consulted at all hours.

It is quite true that some of these advertisers practice homœopathy, but they should not flaunt their allopathic degrees. They are inconsistent. They have disowned their degrees, why further dishonor them. But some of these men have English diplomas. Can they not be reported to the General Medical Council?

Yours &c, L. R. C. P. & S., Edin.

Calcutta, *24th November 1898.*

(We earnestly trust the Vice Chancellor of the Calcutta University will give expression to his feelings on the subject of medical advertising by graduates of the University, whose honor is in his keeping for the present. What can we say of a moribund Medical Syndicate which allows such misconduct to pass unnoticed. Men with British diplomas will soon hear more of their wrong doings Ed. I M. R.)

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THE *TIMES OF INDIA* ON THE PROSPECTS OF ASSISTANT SURGEONS.

To the Editor, "Indian Medical Record."

Sir,—As the *Indian Medical Record* is read by all high medical officials, I desire that you will very kindly publish the following article from the *Times of India* on the position and prospects of Assistant Surgeons:—"The recent concessions to the Assistant-Surgeons have shown that the Government of India are far from indifferent to the claims of the subordinate branches of the Medical Service. But they must go farther in the same direction before full justice has been done A few weeks since we printed a letter in which complaint, as justified as it was bitter, was made regarding the passing over for promotion of the subordinates of the Madras and Bombay establishments who served in the Tirah expedition. Of the character of these men's service there can be no question They worked in the thick of the fight at Dargai; they went through the trying Bara River march; they did their duty honestly and well in every engagement, taking their share of the dangers and hardships of one of the most arduous campaigns on record. We are told of individual cases of courageous performance of duty in rear-guard actions in which members of the Bombay establishment won the approval of all who saw their work. Those who have written in the interests of these men ask for no special recognition of their merits. What is asked for them is that, having done their duty as faithfully as others, they should not be treated worse than others. The list of promotions recommended and granted, which appears in a letter which we print to-day, shows distinctly that the Bombay and Madras men have been treated with marked unfairness. We take the number of recommendations as a safe indicator of the estimate which the officers in the field formed of the character of their work By the side of this factor the most eulogistic reference to instances of individual devotion to duty are relatively of small importance. We find then that twenty of the subordinates in the Bengal establishment—one-third of the number employed—were recommended for promotion, and that of these twelve were promoted. Of the Madras men also a third were recommended— that is to say, four out of twelve. The Bombay authorities were more modest in their claim, for out of thirty-six doing duty they recommended only eight. Neither Bombay nor Madras can, therefore, be said to have unduly pushed its claims. Perhaps, if the medical authorities in these Presidencies had asked for more promotions for their subordinates they would have saved them from being entirely passed over. However this may be, not a single promotion was given to either the Madras or the Bombay establishment, though a fifth of the number from Bengal who did duty with the expedition found favour at Simla. Unless there are reasons for this which have been kept from the public, this is an injustice of a peculiarly exasperating kind. It is well known that admirable work was done by men from the Southern Presidencies, and it is not known that the Madras authorities in recommending four out of twelve men for promotion, and the Bombay authorities in recommending eight out of thirty-six, were less capable than their colleagues in Bengal of judging of the number of deserving men whom their establishment had supplied for the campaign. It seems like suggesting a reason which ought to be no reason, but it is impossible to look at the strange table of promotions given by our correspondent to-day, without feeling that Bengal has done so well, simply because it is Bengal."

Yours &c, Bombay Assistant Surgeon.

:o:

NEW IDEAS ABOUT PLAGUE TREATMENT.

To the Editor, "Indian Medical Record."

Sir,—A new plan against plague has of late been adopted in the Baroda territory along with the usual measures, segregation, disinfection, camping out &c, and the result appears to be satisfactory.

There is a small town called Savali, (having a population of nearly 7000 souls,) at some distance from Baroda, where plague made its appearance in July last, and continued till October 1898. When segregation and disinfection had no effect on the epidemic, and camping out was not practicable on account of rain, pills (each containing quinine grs. 2, camphor gr. ½, ipecacuanha gr. ½, and carbolic acid m. ½) were freely distributed by thousands as a preventive remedy. Each adult was asked to take two pills a day, one in the morning and another in the evening.

The people took to this measure kindly, as it did not at all interfere with their religious prejudices, and the result of it was remarkable. About the middle of September last (when the epidemic was at its height and the average daily number of cases was 8 2 from the 2nd to the 15th of that month) the pills were freely given and the disease began to decline rapidly. During the week ending on the 29th of the same month the daily average number fell to 4. 4, and during the next week it was further reduced to .5. Subsequently there were in all nine cases from the 7th to the end of October 1898, since when no fresh case has occurred.

Some villages near Savali such as Sandhasol &c., were affected with plague, and there also free distribution of the pills produced the desired effect.

Sidhpoor is a pretty large town with a population of about 16,000. A few cases of plague occurred there, chiefly towards the end of August last month, and the disease prevailed in an epidemic form in the next month, and continued like that in October 1898

The total number of cases that occurred during the week ending the 4th ultimo was 71, and during the succeeding week it went up to 92, which was the highest weekly figure, giving a daily average 13.1. It was about this time that the pills began to be freely distributed; and the epidemic commenced to abate. Towards the end of the last month the daily average number of cases fell to five. In the current month it is still less, and since the 9th——there has been no fresh case.

Some villages in the neighbourhood of Sidhpoor became affected with plague, but free use of the pills checked it.

From what has been mentioned above, it would appear that the free use of these pills as a preventive measure against plague, deserves a further trial.

Yours &c., SHAMSUDIN J. SULEMANI, L.M.,
Chief Medical Officer,

BARODA, *22nd November 1898.*

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THE WEEKLY RECORD.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—I was delighted to read in your issue of 1st November that the *Record* is going to be a weekly journal from January 1898. Owing to my official duties I can not find sufficient time, especially of late, to go through the fortnightly *Record* minutely, as I should like to do, but I still make it my duty, at any rate, to glance over the most important and interesting articles. Latterly to my joy I have been finding every issue of the *Record* replete with most interesting and useful information for any medical man with a fair knowledge of English, at least in my sphere of life, for I cannot say much about the feelings of people above my grade. Your excellent writings in the fortnightly *Record* do infinite good towards the advancement of the reader's medical and surgical learning and toward the improvement of his English, besides advocating the cause of the suffering members of the profession and advancing their interests. Judging from this how much more good the weekly edition will do? By this I simply express my feelings without the least idea of flattering or slandering any one; and I request that you will kindly give place to this in an early issue of your most valuable journal for the information of my co-professionalists, and in order to awaken literary interests in those who may be hesitating to subscribe to the weekly edition for fear, that Rs. 1 or 1 8-0 per mensem will not fit into the means of all. They should consider the immense advantages accruing from such payments, for I strongly hope and believe that the future *Record* will amply repay the monetary help rendered to it.

Hoping time and space will permit the insertion of this in your much esteemed paper and heartily wishing every success to the weekly edition.

Yours, &c., W. CINDEKER,

DHARWAR, *19th November, 1898.*

(We publish this single letter out of over a hundred that we have received from Hospital Assistants to show the kindly and appreciative spirit which pervades this whole class. It is remarkable how this ill-paid section of the profession has responded to the demand to convert the *Record* into a weekly, We heartily thank our Hospital Assistant friends for their prompt and kindly appreciation of our efforts.—Ed., I. M. R).

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QUACKERY AND QUACK ADVERTISMENTS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—In your journal of the 16th November, page 415 and 416, is an editorial article headed "Quackery and Quack advertising in India." A portion of that article is devoted to an exposure of a pamphlet styled Ayurveda Sangraha in which various kaviraji preparations are fully advertised. I am a kaviraji practitioner, but I am also a Vernacular Licentiate in Medicine and Surgery of the Campbell Medical School, and by virtue of this qualification I became a Member of the Indian Medical Association. I am well known to many of the leading Indian practitioners of this city, and acting on the advice of Dr. LAL MADHAV MUKERJEE and Dr. RAKHAL DAS GHOSH I called upon you to show you my certificates as also to explain my position. I much regret that I have violated the etiquette of the medical profession, and I shall take immediate steps to put a stop to any advertisement which shows my connection with the medical profession. Having satisfied you and my medical brethren through your journal that I have a legal right to be considered a member of the medical profession, I shall leave my case in their hands. Trusting you will kindly publish this letter in an early issue of the *Record*.

Yours &c., NAGENDRA NATH SEN.
Government Medical Diploma Holder, Member of the Chemical Society, Paris; Calcutta Medical Society; Indian Medical Association, &c., &c., &c.

18/1, LOWER CHITPUR ROAD, CALCUTTA,
23rd November 1898.

(We have had a visit from Mr. Nagendra Nath Sen Gupta V. L. M. S. and have seen his government certificate of qualification which bears the signatures of the authorities of the Campbell Hospital Medical School. It proves that Mr N. N. Sen Gupta is a properly qualified medical man, and it all the more justifies our condemnation of his advertisements. However, as Mr. Gupta promises to mend his ways, we shall cease to, refer to him in his indignified capacity as a *medical* advertiser and we sincerely trust other offenders will soon follow his present example.—ED., I. M. R.)

Government Medical Gazettes.

GOVERNMENT OF INDIA.

The leave granted to Mily Asst. Surgn. E J. Baptist, Med. Store Depot, is extended by six months.

Lieut.-Col. William McConaghy, M D., to be Col. 25th Sep. 1898.

Asst. Surgn. and Hony. Lieut Charles Pierce to be Senior Asst. Surgn with hony. rank of Capt

Asst. Surgn. William Archell Williams to be Senior Asst. Surgn. with hony. rank of Lieut.

Asst. Surgn. Arthur George Bowder to be first-class Asst. Surgn.

Asst. Surgn Reginald Henry Willick Hart to be second-class Asst. Surgn. from 2nd Sep. 1898.

Asst. Surgn. Joseph Nathaniel Hesterlow to be Senior Asst. Surgn. with hony. rank of Lieut.

Asst. Surgn. William Peter Bell Hart to be first-class Asst. Surgn.

Asst. Surgn. Charles Henry Arthur Alderton to be second-class Asst Surgn. from 13th July 1898.

Asst. Surgn. Waldemar Herman Passanha to be second-class Asst. Surgn from 7th Aug. 1898.

BENGAL GOVERNMENT.

Asst. Surgn. Preumber Mitter to do duty at Presy. Genl. Hosp.

Asst. Surgn. Mohendro Nath Dutt to tempy. med. charge, Arrah Dispy., Shahabad dist.

Asst. Surgn. Nritto Gopal Mitter, Arrah Dispy., leave for three months

Asst. Surgn. Chunder Coomar Gupta, Burdwan Dispy., to act in med. charge, Monghyr Dispy.

Asst. Surgn. Surendra Nath Dutt, Lalbag Dispy, to act in med. charge, Chanchal Dispy. Malda dist.

Asst. Surgn. Sasi Bhusan Mukerjee, Chanchal Dispy., to act in med. charge, Tamluk Subdiv. and Dispy.

Asst. Surgn. Abhoya Kumar Sen, Tamluk Subdiv. and Dispy., leave for three months

PUNJAB GOVERNMENT.

Hosp. Asst. Abbas Ali Shah, to Jail Hosp., Peshawar, 31st Oct. 1898.

Hosp. Asst. Ghulam Ahmad, from Jail Hosp. Peshawar, to N.-W. Ry. Hosp., Nowshera, 2nd Nov. 1898.

Hosp Asst. Muhammad Hayat, from N.-W. Ry. Hosp., Nowshera, Egerton Hosp. genl. duty, 7th Nov. 1898.

Hosp. Asst. Pir Bakhsh, Bannu, to retire from the service from 30th Sept. 1898.

Hosp. Asst. Harbans Singh to do genl. duty, Civil Hosp., Ferozepore, from 18th Oct. 1898.

MUNARA... DEC 1898 ...WAR.

Hosp. Asst. Harbhagwan from Miani to Khushab Dispy. 9th Nov. 8898.

Hosp. Asst. Bishan Das from Khushab to Miani Dispy. 11th Nov. 1898.

Asst. Surgn. Parma Nand, from Southern Punjab Ry., Bhatinda, to N.-W Ry, Khanpur, 4th Nov. 1898.

Asst. Surgn. Lachman Das II, from N.-W. Ry, Khanpur, to Southern Punjab Ry. Bhatinda, 5th Nov. 1898

Hosp Asst. Abdulla Khan to do duty at Jhelum from 12th Oct. 1898.

Hosp. Asst. Ganesh Das to do genl. duty, Civil Hosp., Sialkot, from 5th Nov. 1898.

Hosp. Asst. Harbans Singh, doing genl. duty Civil Hosp., Ferozepore, to Mehraj Dispy. Ferozepore Dist. and assumed charge 31st Oct. 1898.

CENTRAL PROVINCES GOVERNMENT.

Passed Med. Pupil Ramashraya Jagannath Dube, doing duty under Civil Surgn. of Nagpur, is restored to the grade of 3rd Class Civil Hosp Asst. from 13th Oct 1898.

Hosp. Asst. Kabil Ahmad did duty under Civil medl. officer, Mandla, 18th and 19th June 1898

Hosp Asst. Ramchandra Krishna Chandorkar, Main Dispy. Balaghat, held charge of the Jail and Police Hosps, Balaghat from 11th to 22nd Oct. 1898.

N.-W. P. AND OUDH GOVERNMENT.

Asst. Surgn. Dalip Singh Katwal, Travelling Plague Med. Insptr., Allahabad Circle, to Plague duty at Hardwar, Saharanpur dist.

Asst Surgn. Chander Mohan De. on Plague duty at Hardwar Saharanpur dist., to be Travelling Med. Insptr. of Plague, Allahabad Circle

Asst. Surgn. P. N. Benarji, Chunar Dispy in Mirzapur dist, privilege leave for two months from 1st Nov. 1898.

Hosp. Asst. Narain Das, on Reserve duty at Pilibhit, Chunar Dispy, Mirzapur dist.

ASSAM GOVERNMENT.

Leave for one month, is granted to Hosp. Asst. Ananda Kisor Datta.

Hosp. Asst. Asvini Kumar Datta, Bhanga Dispy. in Sylhet dist. to Lushai-Hills dist a supery. under Civil Surgn. from 20th Sept. 1898.

Hosp Asst. Asvini Kumar Datta, a Supery. Lushai-Hills dist. to Champhai Mily. Police outpost from 8th Oct 1898.

Hosp Asst. Mohendra Chandra Chakravarti, Champhai Mily, Police outpost Lushai-Hills dist. a Supery. under Civil Surgn. from 17th Oct. 1898.

Privilege leave for three months, is granted to Hosp. Asst. Kailas Chandra Das, Tura Dispy Jail and Police Hosp., from 15th Sept 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTHS.

BAWA—On the 24th October, at Tuticorn, the wife of Dr. H. Bawa, F R C.S, etc., of the Ceylon Medical Service, of a son

CAMPBELL—On the 12th November, at Shillong, the wife of Lieutenant-Colonel R. Neil Campbell, M B, I.M S, of a daughter.

CAMA—On the 13th November, at Bellary, the wife of Major R H. Cama, I.M.S, 9th M. I, of a son.

MARRIAGE.

MEYER—COTGRAVE.—On the 9th November, at Matheran, by the Rev Davis, C.M S, Captain Charles Hardwick Lonur Meyer, M D., B S. (London), I.M.S, to Mary Scott, third daughter of T. M. Cotgrave, Esq

DEATHS.

BOOKEY.—On the 7th November, 1898, at Abbottabad, Punjab, Stella, the infant daughter of Lieutenant-Colonel J. Bookey, I.M S, aged 3 months.

BAPTIST—At Madras on the 12th November, Assistant Surgeon E J. Baptist, I.M S.

CARROLL—On the 10th November, 1898, at Mean Meer, Mary Josephine, the dearly loved wife of Assitant Surgeon Charles Carroll, I.M.S.

GUPTA—At Calcutta on Wednesday, the 23rd of November 1898, Dr. P. M. Gupta, Civil Medical Officer, Faridpur.

WEATHERLY.—On the 13th of November, at Kalimpong, Arthur John Weatherly, M R. C. S. Civil Medical Officer and Planter's Doctor, son of Frederick Weatherly, of Purtead, Somerset, aged 38.

NOTICES TO CORRESPONDENTS.

H. K. S. Your communications are always appreciated.

S. J. (Baroda)—Thanks, next number.

Eden Hospital.—We note Mrs. S's. complaint that her nurse was sent to the Eden Hospital on the 19th November with a sick child, that she waited at the hospital from 11 A.M. to 4 P.M. without attendance, and was finally told that she could not be attended still 5 P M.

Civil Apothecary. (Madras).—Officers of your designation are reckoned as belonging to the Assistant Surgeon class. They cannot be considered as being on a par with hospital assistants.

N. B (Dagshai).—Having attended to a case of miscarrage 10 miles from your station and having been detained for 24 hours, you as an Assistant Surgeon, should charge a fee varying from 100 to 150 Rupees. Each daily visit should be charged for at Rs. 24 plus travelling allowances, and if when in attendance with another doctor, you gave chloroform, you should charge Rs.16 for this service.

W. C. (Wadi Junction).—We are very sorry we cannot help you in the way you desire.

A K R. (Poona).—You will find all the information you need in the Medical Register and Directory of the Indian Empire, and you will learn something further on the subject of your enquiries, in this and the last issue of the *Record*.

C. K. (Fao)—We regret we are not at all versed in Arabic.

A. B. C (Deolali).—The papers you sent us are very creditable.

H. C. B. (Janai).—Your protest about Khaviraj N. N. S. Gupta needs translation. If you will have this done we shall be obliged. It is in Bengali.

Military Assistant Surgeon. (Karachi).—You are perfectly right when you say that a large number of the men of your class are positvely apathetic concerning their own interests. You are further correct in stating that while they have enjoyed more special benefits than any other class from the existence of the *Record*, they are apparently the most ungrateful and unappreciative. It is perfectly true that the names of Civil Assistant Surgeons have come in in large numbers for the new weekly *Record*, while your comrades have shown marked lethargy in the return of the post cards sent them.

J W. (Karachi).—The new scale cannot be altered and it is not at all too high for any class.

D D. (Dinapur)—You will observe that British qualifications are necessary for the post you write about.

M.A R. Thanks. Next number.

N. D. V. (Jetpur)—We have nothing to do with the sale of the *Medical Register and Directory of the Indian Empire*. The entire financial responsibility of the above volume rests with Messrs. Barker Bros., Medical Publishers and Printers, at 150, Dharamtala Street, Calcutta. We can state frankly however that the cost of the publication to them has been very high, and they are not likely to reduce the price of the book.

Native States. We regret to observe that some Dispensaries, Hospitals and even "States" try to wriggle out of *full* subscription to the *Record*. Our rules for concessions refer *only* to individuals and not to institutions. We learn also of Civil Medical Officers buying the *Record* through and in the names of their Hospital Assistants. This is somewhat mean.

W. M. (Jubbulpore).—Kindly make out your case and send it with a copy or your service records and certificates to the Secretary, I.M.A.

ORIGINAL ARTICLES.

ON THE TREATMENT OF CARBUNCLE.[1]

By Thomas H. Manley, M.D.,
Professor of Surgery, New York School of Clinical Medicine.

It is well-known that felons, erysipelas and carbuncle are most commonly observed during the spring and early summer. They all present many features in common, although the clinical distinction is clear enough. They often appear to be aroused into activity by some local change in the tissues, produced and maintained by what we vaguely designate "constitutional disturbances," but of which we certainly know very little.

Carbuncle.

Meredith defines a carbuncle as "a local specific inflammation of the subcutaneous areolar tissues, rapidly leading to sloughing of the deeper and more compact parts; followed by destruction of the skin, the whole of the dead tissues finally separating in the form of a slough."[2]

Carbuncle is a lesion which presents many very puzzling features. In all of its phases, as a rule, it is a very painful affection, in most instances commencing as a papule with an indurated base, assuming an intense inflammation, finally running into suppuration and gangrene, with later granulation and cicatrization of the ulcer. In this respect it is identical with whitlow. In other more aggravated phases the extent of constitutional disturbance is considerable; bodily strength rapidly fails and well-marked evidence of infection of the circulation is present.

In many cases of this class carbuncle kills. Meredith says that "death may come from exhaustion, which is sometimes aggravated by *hæmorrhage, the result of free incision* [italics mine], but the most frequent cause of a fatal termination is pyæmia."

Local Changes in the Parts

Carbuncle kills, then, by the protracted, agonizing distress it occasions, which racks the system and cripples the vital powers; and by the toxic effects of resorbed dead tissues, ichor, pus and bacteria. This lesion gives issue to grave symptoms, only when certain local pathological changes set in.

How may these be aborted or rendered innocuous, or is either result possible? This brings us to the consideration of treatment.

Treatment: Constitutional or Local, Prophylactic, Palliative or Radical.

Within the past year two notable essays on the therapy of carbuncle have been contributed by two distinguished members of the medical profession of New York; the first by Dr. L. Duncan Bulkley, and the second by my colleague, Professor Carl Beck. Both of these contributions are noteworthy because of the extreme tendencies inculcated in each; by the former in the direction of conservatism and palliation, and by the latter in recommending early and complete excision.

Early Excision.

Beck says. "As the infiltrated tissue must be eliminated at all hazards, be it infected by whatever bacteria, it is better to sacrifice it at once and to remove it with its disastrous inhabitants."[3]

Theoretically this position cannot be assailed; *i.e.*, a limited focus of virulent infection of any description, wherever found, should be eradicated. But practically this is often either injudicious or impossible.

Anthrax, although its favorite site is along the lateral areas of the vertebral column, may develop on any part of the cutaneous surface of the face, the trunk, or the extremities. From our experience in excising chancres or buboes, it is well-known that before the stages of suppuration or ulceration it is impossible to determine just how wide the limit of invasion is; and, hence, quite in spite of a free dissection, suppuration will invariably follow, with a large, open breach in the tissues, left to heal by granulations. Again at times a wide area is involved by an infiltration which extends deeply into the neighboring parts, so that a free division of important and highly vascular structures will be necessary in excising the indurated parts.

In the incipient or papillary stages of carbuncle, excision affords us a simple means of at once and radically dislodging it, though we may have to repeat the procedure with each eruption of a fresh papule.

Finally, the most cogent objection one can bring against excision is that it may involve an operation requiring the employment of pulmonary anæsthetics, although when the area invaded is of limited dimensions a local analgesic will suffice; but in any event the tissues must be divided with loss of blood. It goes without saying that in carbuncles of huge proportions extending deeply into important structures it is quite impracticable. If anything like an extensive dissection be required, our patient must remain quiet until at least repair is well begun.

Conservative Treatment.

At the late meeting of the British Medical Association in Montreal, Dr. Bulkley, of New York, submitted a somewhat remarkable essay on the treatment of felons, boils and carbuncles, which, coming from one so well and widely known, must work incalculable mischief.

He begins by saying that "the knife has long been associated in the minds of both the laity and profession with the treatment of boils, felons and carbuncles, and incision is the recognized treatment on all sides." He declares that he has not incised a carbuncle in fifteen years, and adds that "if others will carefully and intelligently carry out the details in treatment, they will have equally as good results as himself." He advises the same general plan for felons and carbuncles. Now, it certainly would be an enormous gain to medical science if surgery could be dispensed with in a class of cases which practitioners have always regarded with serious apprehension, and which are sometimes a source of terrible torture and even danger to life.

Let us see what this innovation consists in. First, internal medication; the sulphate of calcium for its supposed controlling action on suppuration, purgatives, tonics, etc. Secondly, something locally, of a protecting, soothing and antiseptic character. The doctor quotes Paget as condemning the incision of carbuncle under all circum-

1 Read before Society of Medical Progress, New York, March 30, 1898.
2 Quain's "Dictionary," second edition, p. 275.
3 "Radical Treatment of Carbuncle." The *Clinical Recorder*, January 1, 1898.

stances. It is true that this celebrated surgeon severely criticized the indiscriminate cutting of carbuncles—the deep crucial incision—unless one was certain of deep-seated suppuration; but that was nearly twenty-five years ago, long before the first days of Listerism had flashed on the horizon, and hence principles of treatment regarded as orthodox then are effete and antiquated.[4]

Kaposi declares that "treatment of carbuncle in its direct sense is almost powerless, as is cannot be cut short by ice, heat or early incision."[5] Gottheil advises "free and early incision followed by thorough curetting as of benefit in some cases, but complete extirpation is better."[6]

Sulphide of calcium in my own hands has invariably proven inert as a pus destroyer; but what is of vital importance to bear in mind right here, is that, in the early stages of both felons or carbuncles there is no pus whatever. Several years ago the last phalanx of my little finger (left hand) was the seat of a felon. For three days and nights the agony was something dreadful. In the meantime various local remedies were tried, without the slightest relief. On the fourth day the physician was permitted to do what he wished to do on the first, viz., to sink the blade of a strong bistoury down deeply to the bare bone. The effect was instantaneous, but not a drop of pus escaped. Several times in the early and always the most painful stages of felons have I opened them with the same result. My experience has been that when pain ceases gangrene has begun, or the bone is necrosed. In genuine felon, true paronychia, which does not early abort of itself, penetration to or destruction of the diseased process beneath the periosteum, alone will save the affected joint or cut short the inflammatory changes.

It is inconceivable and contrary to all experience that any oleaginious, impermeable or antiseptic substance can penetrate through the unbroken derma to reach the seat of disease. In fact, there are but very few medicaments which the skin can absorb at all.

That the constitution is involved in these cases is undoubted, and that bracing reconstructives are sometimes needed, is certainly correct. In advanced cases, however, the grave enfeeblement of the vital powers with marked evidence of pyæmic absorption is a consequence and not a cause. That glycosuria is anything more than a coincidence occasionally in carbuncle is by no means proven.

Sir James Paget is the authority for the statement that carbuncles sometimes spontaneously abort early I have never seen one do so, and the probabilities are that the local induration described by him as carbuncle was some simple form of papillary intumescence. The tendency of unchecked carbuncle is toward progressive destruction of tissue, suppuration, necrosis and sloughing of tissue, with the great dangers superadded of septic infection, pneumonia, meningitis, etc. To dally with a lesion of such a serious character is, to put it mildly, a grave error. In the remote past, before the days of anæsthetics or antiseptics, we did well to spare our patients the terrors of the blade for whitlow or carbuncle, until every possibility of mistake in diagnosis was eliminated and the thing was "ripe;" but that won't pass for up-to-date surgery in our time; for it may be, and it should be, stated in the most emphatic terms, that at the present, in both anthrax and felon, surgical interference must be prompt and radical, though, happily for the poor sufferer now, it may in the former spare him mutilation or the loss of even a single drop of blood.

4 Paget's work appeared in 1875.
5 Kaposi "Skin Diseases" p. 217, vol. i.
6 Gotthell. "Illustrated Skin Diseases," p 176.

Potential Cautery.

Moty reports a case of anthrax affecting the lower lip, with secondary foci on the breast, the forearm, and the shoulder, treated by puncture with Paquelin's cautery at each suppurating orifice and subsequent dressing with carbolic acid. In some of the smaller foci the disease was checked at once by the puncture, and no more pus was formed. As for the deep-seated ones, the author remarks that the patient's sensations are the best guide to their situation, for at first they do not betray themselves by physical signs; yet it is of importance to treat them promptly, whether pus has formed or not. The part may be cocainized before the cautery is applied.[7]

In the early stages both of paronychia and anthrax they may be so effectively benumbed with cocaine as to admit of all necessary manipulation. The potential cautery, Paquelin's or the electro-cautery, may be used with great satisfaction on many types of carbuncle not calling for total eradication and which are easy of access

Direct, Immediate and Total Destruction of the Carbuncular Tissue by the Deep or Hypodermic Injection of Pure Carbolic Acid.

Five years ago I commenced the treatment of carbuncle by the injection of pure carbolic acid. I am assured now that this method is simple, safe and durable in its results. To inject concentrated carbolic acid directly into the living tissues, however, may strike one as a measure fraught with danger, and is a measure which must be exceedingly painful. The first case of carbuncle which I tried it on came under my care in its acute inflammatory stages It was the source of the most intense pain, with marked constitutional disturbance. The pulse was 116 a minute, the temperature 103° Fahr. Through loss of sleep and appetite my patient was reduced to great weakness. He had delayed professional aid till late, because of his fear of an operation.

In this instance the carbuncle was large, with several openings, lying over the midcervical region of the spine. In this instance the effects of carbolic acid injection were most extraordinary. Since then I have treated in both sexes more than fifty cases of carbuncle. About three-fourths of my patients were in hospital and dispensary practice. Five were physicians and three were physicians' wives. There was no mortality, and in no single instance was there protracted delay in repair, except in those which came under my care late. Without exception when employed early this method arrested the advance of the boil, nipped it in the bud, so to speak, destroyed it root and branch, and, what is an enormous gain under these circumstances, permitted the afflicted to continue with comfort their ordinary occupations. Crocker in his work on skin diseases notes that "it is said that a one to ten per cent. hypodermic injection of carbolic acid will abort carbuncles." He does not appear to have had any experience with it himself.

7 Indian Medical Record, February 15, 1896.

Local and Constitutional Effects of the Deep Injection.

The first sensation the patient experiences after the needle is deeply lodged, is a burning heat from the crude acid. This is quickly followed by an immediate loss of all pain. The acid in places when it issues up blanches and chars the tissues, coagulates and destroys the purulent foci over a wide area. In the diminutive initial papule it also at once numbs all pain and stamps it out. The relief is so prompt and the destruction of infective spread so decisive, that the suffering patient again enjoys his unbroken sleep and recovers his appetite. And in this procedure we have an illustration of just the reverse of what is promised through constitutional measures, demonstrating as it does that the *fons et origo* of all the distressing and grave systematic disturbances of carbuncles are entirely dependent on a most virulent local septic process —a process which, if left undisturbed, proceeds to the total death of all the tissues invaded. In no instance in which I have employed these injections has there been any evidence of toxic effects on the system through absorption by the circulation, although it is possible that some of the salutary effects resulting may depend on the phenic elements acting on the system. This view derives some support from the interesting case recently reported by G. Scott Jackson, M.D., of Glasgow.[a] His patient had anthrax, resulting from an infection of a sore on a sheep. The sore on the arm having attained great proportions, the whole limb being enormously swollen, Jackson cut deeply down through the infiltrated mass, and then mopped the divided surfaces with pure carbolic acid. Besides, he immediately placed his patient on carbolic acid and iron internally, ten grains of the acid and ten of ferric tincture. From a desperate condition his patient was immediately relieved, with a subsidence of all the symptoms and rapid recovery. The writer believed the satisfactory result was attributable to the loss of blood after incision and the large doses of carbolic acid.

Technique.

Before describing the details of the phenic injections for virulent abscess it is necessary to state that they must be modified to meet the requirements of the various stages and types of the lesion. It may be well to bear in mind also that when utilized late, their most precious value is lost. The time for prevention, prophylaxis, has passed, and dead tissues cannot be recalled to life; but even when utilized in the advanced stages of the malady their value is infinite in arresting pain and checking the farther advance of disintegrating processes.

In employing this powerful agent let us be quite certain that we are dealing with a genuine anthrax, in order not needlessly to subject our patient to such heroic treatment for, perchance, an innocuous transient papule. Before we proceed to inject the fluid acid it is necessary first to carefully cleanse the surface, and then spray with ethyl chloride the part about to be punctured.

In my early experience I used the pure dissolved crystals of carbolic acid for injections, but later it was found that an eighty or ninety per cent. solution answered equally well. In all cases it is necessary to have a long and strong hypodermic needle, as the tissues are sclerosed and very resistant.

When an injection is made into a carbuncle in its early papillary stage, before extensive infiltration has set in, not more than from one to three drops are necessary. In all these cases, however insignificant the papule, after the acid has penetrated its base, coagulated pus will well up through its center. Care should always be observed that the surrounding integument be protected against the corrosive effects of the escaping fluid. Quite generally for small undeveloped carbuncles one injection will suffice; but, as we may miss the central "core," or infective focus, the first time, it may be necessary to repeat it once or twice, although this is unusual.

Carbuncle in the Suppurative Stages.

After the multiple pustules of a large carbuncle have opened, its surface is raised high, and a wide reaching deeply inflamed zone surrounds it: the phenic-acid injection entirely dispenses with the need of incisions for the relief of tension and for drainage, as it totally destroys the imprisoned pus and the pyogenic bacteria which produce it. Pyogenic action extinguished, pain ceases and resolution begins.

In this class the acid must be injected with a free hand. In one case of a most aggravated description in the wife of a physician, into the enormous mass over her back I repeatedly injected as much as thirty drops each time. In carbuncle of massive proportions or great depth the fluid must be sent into the base.

Here caution must be observed, if we are operating over vascular areas, not to pierce the walls of a vessel and send the toxic charge into the general circulation. It is equally important to clear the large nerve trunks.

In most ordinary cases in this suppurating stage from fifteen to thirty drops are ample completely to destroy all purulent foci. But one needle puncture is needed through the integument. After a few drops are deposited at one point, the needle is partly withdrawn, to be sent in again in a different radius after being turned on its axis. This is repeated until the whole base is thoroughly cauterized.

After-Treatment.

When this method is employed as a prophylactic early, there is practically nothing further to do, other than to keep the surface protected until charred center, the slough, is detached and thrown off, when complete healing quickly follows.

In large suppurating anthrax, carbolization stays its progress only: the extensive gangrenous sloughs must be thrown off by a slow process of ulceration. At times a large hiatus is left to close in by granulation. Here complete cicatrization is sometimes very tedious because of the septic state of the system and want of plasticity in the blood. During the separation of the slough the patient should be freely stimulated and strengthened by the bitter tonics, iron, etc., conjoined with nourishing food. In severe cases the heavy wines and malted liquors are highly useful.

Types of Carbuncles Not Calling for Active Surgical Measures.

Sir James Paget pointed out two very important features of carbuncles which it is well carefully to bear in mind when radical measures of treatment are being contemplated: 1st, that heavy carbuncles tend to spontaneous disappearance in their early stages; and 2d, that many do equally as well without the incision as with it, although he

[a] *Lancet*, 5th March 1898.

did not deny that the scalpel has a place in all deep-seated suppurating cases.

And so would my experience lead me to advise nothing other than palliative measures in any instance when there is absence of pain ; but pain is an essential clinical constituent of any true carbuncle. If it be but transient and trivial, the sore should be let alone, or treated by simple measures ; certainly by no aggressive surgery. Such a case I lately saw in the sister of a physician. The carbuncle was situated on the buttock ; though freely suppurating it was quite painless. With moist dressings and compression repair was quite rapid and complete.

CASES SUITABLE FOR CONSERVATIVE OR NON OPERATIVE TREATMENT.

Pseudo-furuncle or carbuncle, those painless papillary projections from the cutaneous surface which occasion no inconvenience and make no impression on the system, should be treated with placebos or simple remedies.

For some reason, yet a mystery, even a malignant ulcer may continue its ravages without any pain ; and so sometimes one may resolutely convince himself that he has no severe injury, though the head of a bone is luxated or a shaft sundered, because he endures no sufferings. In certain individuals a suppurating, sloughing carbuncle causes no pain or marked soreness. Generally with this class there is but little if any severe constitutional disturbance.

With the above class Dr. BULKLEY'S line of treatment may be adopted with advantage, because it obviates mutilation and seeks to eliminate the *materies morbi* from the system. As between excision and phenic congelation for reasons set forth, the painless mummification should be quite generally adopted.

WHAT SHOULD THE GENERAL PRACTITIONER KNOW ABOUT THE EYE? *

BY CASSIUS D. WESCOTT, M D.

Instructor in Ophthalmology at Rush Medical College, Etc., Chicago.

WHEN most of us were students, our good friend and faithful teacher, Professor HOLMES, believed that every physician should be able to recognize the commoner diseases of the eye, and that those who practiced in the country, or in small cities remote from specialists, should also hold themselves in readiness to treat such conditions wisely and with skill. He therefore gave us minute instructions for the recognition and treatment of diseases of the lids, conjunctiva, cornea and iris, and told us how to recognize cataract, and to know when it was ready for operation. He did not advise us to operate upon the eye except in actual emergency, and we were not instructed in the use of the ophthalmoscope.

Rush Medical College has never attempted to make specialists, but has done her best to prepare her graduates for the practice of general medicine and surgery. We, who are honored in calling her Alma Mater, are proud of the fact that she has never ceased her efforts to do more and better work each year.

Recognizing the growing importance of our knowledge of the eye in its relation to general diseases and conditions, and the fact that every physician should be able to make a functional examination of the eye, the faculty, at Dr. HOLMES' suggestion, established, five years ago, a practical course in ophthalmoscopy and refraction. Since that time every member of our senior classes has had an opportunity to acquire practical knowledge of the methods of examining the eye as to its visual power and its refractive condition, and of the use of the ophthalmoscope.

We have not intended or attempted to instruct the students in the fitting of glasses, to properly do which often taxes to the utmost the knowledge and skill of the specially trained ophthalmologist, but we have demonstrated for them the optical properties of the eye in emmetropia and ametropia, and have taught them how to recognize the different errors of refraction, and the principles involved in their correction. Likewise it has been impossible to show the students all forms of intra-ocular disease, or to give them the skill in the use of the ophthalmoscope which comes only with months of patient practice, but, with the aid of models, we have taught them to see and to examine in detail the normal eye ground, and have demonstrated with charts and plates practically all of the important changes one is apt to see.

Basing my belief upon the stand which the College has taken and my experience with our students, it seems to me that the doctor whom we hold responsible for the health of the family and whom we expect to be prepared to do all emergency surgical operations, except possibly in the very large cities, should also be prepared to make an intelligent and comprehensive examination of the eye, both with reference to its diseases and its functions. He should be able to do this for his own satisfaction as well as for the good of his patient ; and in most cases an examination which any physician can easily make will enable to him to determine in a few moments whether the patient needs to consult the distant specialist, or if his trouble can be safely managed at home. It seems to me beyond question that the family physician should know that a red eye does not always mean conjunctivitis simply, and that it may mean keratitis, iritis, cyclitis or glaucoma, and that total and incurable blindness may result from any of these conditions, except the first. It is possible to differentiate positively these conditions, and having made the diagnosis one can stand from under if he is not prepared to take all responsibility in case of a bad result

The general practitioner should always be able to differentiate between cataract and opacity of the cornea, and blindness due to glaucoma or atrophy of the optic nerve. Perhaps I feel a little sensitive on this particular point, as I once travelled one hundred and seventy-five miles, and carried all the necessary instruments and appliances for the operation of cataract extraction, to find that the patient whom I had been sent for to operate upon had no cataract, but a leucoma of the cornea, the result of an old ulcer. As it was not even a favorable case for the improvement of vision by iridectomy, I travelled another hundred and seventy-five miles home again, having lost the better part of two days, and without a fee.

It is also possible to settle the question approximately as to whether headaches and other symptoms which we attribute to eye strain, are due to manifest errors of refraction or not, and it may often save a patient a long and wearisome journey, as well as considerable expense,

* Read at the Scientific Meeting of the Alumni Association of Rush Medical College and sent by the author for publication in the *Record*.

if the family doctor will interest himself in the simple devices which are employed for this purpose. As many of you are doubtless aware, eye strain is not due to errors of refraction alone, in fact the error of refraction may play a very small part in the production of the distressing symptoms in a patient who suffers from neurasthenia or who is from any cause over-sensitive or below par. I find that most of the younger patients who are referred to me for glasses are suffering as much, if not more, from depraved nutrition and faulty habits of life, as from actual ocular imperfections.

There are practically no perfect eyes. Absolute emmetropia is a curiosity, and if all astigmatics wore glasses, almost no one would be without; but it is fortunate that there are some who have sufficient physical health and nervous force not to be disturbed by the additional effort of accommodation which is necessary for the auto correction of these defects. If everything possible was done by the general practitioner for the cure of eye-strain without resort to glasses, fewer patients would be sent to the offices of the ophthalmologists.

Every physician should also know that strabismus always means defective sight and imperfect refractive conditions, and that the cure of strabismus does not consist merely in the restoration of the normal appearance of the eyes, but rather in the correction of the error of refraction, the improvement of sight and the restoration of binocular vision. All of this is absolutely impossible unless we can begin the treatment of these cases very early. I believe that their treatment cannot be commenced too early, and I will venture to say that if the management of these cases can be begun when the symptoms first appear, and carried out with patience and intelligence, more than seventy-five per cent. of the cases of convergent and divergent strabismus can be cured without operation. In this connection I hope that none of you will fail to read the excellent paper by my friend, Dr. GEORGE M. GOULD, of Philadelphia, published in the *Philadelphia Medical Journal* of 21st May. The conclusions which he has reached are so thoroughly in accord with my own experience that I cannot forbear quoting. He says:

"1. Positive squint, easily recognized by any one, needs immediate expert help to prevent fatal and permanent amblyopia.

"2. By alternately covering the eyes (the cover test) the physician may, at a very early date, detect beginning imbalance.

"3. By bandaging the good eye, and observing if the child can pick up, handle and touch objects accurately, one may prove whether a suspected amblyopia really exists or not.

"4. The earlier in childhood, and even during infant life, that amblyopia, muscle imbalance, or high degree ametropia is discovered, the easier the prevention of almost certain and irremediable ocular injury. The child may be too young to wear glasses, and still therapeutic measures may be instituted (temporary mydriasis, or blinder for the good eye, for example) that will prevent injury too great for recovery.

"5. Glasses, when required, must be ordered much earlier in life than is supposed possible or taught necessary. If I had a child of two years of age needing them I am sure they would be ordered, and just as sure they would be not only tolerated, but welcomed, and most sure they would prevent great ocular, physical and mental injury."

Unquestionably the family physician should be able to manage cases of conjunctivitis in all its forms, and he should certainly understand the nature of blennorrhea neonatorum, and appreciate the importance of carrying out in minute detail the modern treatment of this disease, which is responsible for possibly 25 per cent. of all blindness which exists in the world. Likewise he should understand the importance of all injuries to the eye, and the necessity for proper initial treatment. A foreign body in the cornea is frequently overlooked because no examination is made in the dark-room by means of oblique illumination and the use of the ophthalmoscope, and infection and inflammation results in the loss of an eye, which could have been saved without any difficulty had the true nature of the trouble been determined.

I quite agree with the teaching that only those who are qualified by especial training and experience should operate upon the eye, except in emergencies, but there are occasions when sight may be preserved by the prompt action of the surgeon who is first called, in a case of punctured wound of the eyeball All who are liable to be consulted under such circumstances should hold themselves in readiness to restore or cut a prolapsed iris, and to preserve in an aseptic condition any clean wound of the eye. The general practitioner may not be prepared to do iridectomy in a case of acute glaucoma, but tension can be temporarily relieved, and perhaps the sight of the eye preserved until the ophthalmologist can be consulted, by simple paracentesis of the cornea.

It is hardly necessary for me to call the attention of this audience to the advantage afforded by the use of the ophthalmoscope in general diagnosis, for it is now universally recognized that this little instrument is indispensable to those who aim to learn all that can be known of the condition of the brain and nervous system, and it furnishes valuable confirmatory evidence of many diseases of other parts. Perhaps, however, you will pardon a few suggestions. Everybody knows about BRIGHT'S retinitis, and that disturbance of sight due to the lesions of this complication is sometimes the first signal of grave disease of the kidney. Somewhat similar changes in the retina frequently accompany diabetes, and some forms of choroiditis often furnish the only evidence of hereditary syphilis. Twice within the year I have seen monocular optic neuritis due to anæmia, in which the condition of the eye first called attention to the grave character of the disease.

As you are all aware, optic neuritis or choked disc is a frequent sign of abscess of the brain, and the most constant symptom of brain tumor. Embolism of the central artery of the retina, or one of its branches, with its sudden blindness and characteristic eye ground, may give the first hint of important heart lesion. Thrombosis of a retinal vein, while not so easily recognized, is equally suggestive.

Examples might be multiplied indefinitely, but I do not wish to be didactic. It is my purpose, rather, to remind you once more, that the eye is anatomically a

part of the nervous system, and that : "The ophthalmoscope is of use to the physician because it gives information, often not otherwise obtainable, regarding the existence or nature of diseases elsewhere than in the eye. This information depends upon the circumstance that we have under observation : (1) The termination of an artery and the commencement of a vein, with the blood circulating in each. (2). The termination of a nerve, which from its close proximity to the brain, and from other circumstances, undergoes significant changes in various diseases of the brain, and in affections of other parts of the nervous system. 3. A nervous structure, the retina, and a vascular structure, the choroid, which also suffer in a peculiar way in many general diseases."

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DR. MARSHALL ON VENEREAL DISEASE.

By William Huntly, M.A., M.D., B.Sc.
Nusseerabad.

Perhaps the saddest phase in the various discussions on the C. D. question, which it has been our lot to read, is concerned with the attitude taken up towards the moral aspects of the question. We would not have even introduced this part, but that it is introduced in the contribution to this question by Dr. Marshall in the *Indian Medical Record* of 1st November. He writes : "With regard to the moral side of the question we leave this aside altogether," and then adds, "with the exception of pointing out, as has been done before again and again, that we are dealing with &c., &c., and further that moral methods have been tried and failed." We might add also that we have read rubbish like this before, not only concerning venereal diseases, but also about drunkenness and indeed against every reform ever attempted.

It would be interesting if Dr. Marshall would inform us when these moral methods were tried, to what extent they were tried, how long they were tried (*e.g.*, as long as the C. D. Acts were given a chance and failed), and what moral methods. Perhaps Dr. Marshall is unaware that the highest Army authorities have issued instructions to their officers to set moral methods in the front. Perhaps he does not know that when he says "no one thinks of checking these diseases by moral means" and includes venereal in the category, that the very latest document is the ample recognition and admission that these diseases have moral relations. And we can assure Dr. Marshall that in the near future more earnest efforts will be made to enlist morals in the fight against this disease and the vice with which it is mixed up. There is even great promise in this initial movement towards moral reform, when we read what has been done under temperance reform. It is too late for any one to heed such vague and loose statements as those submitted by Dr. Marshall. The question by the latest official military document on the subject has passed from being one of disease and sanitation, to being at its root a moral one. The pity is that it was not thus admitted long ago.

Dr. Marshall shows or tries to show a very fine appreciation of the differences of expression between Mr. Wilson and the *Lancet*. He finds fault with Mr. Wilson saying that, "The *Lancet* is conscious of complete failure." Would we direct Dr. Marshall to again weigh the meaning of the words of the *Lancet* quoted by himself. The words run thus,—"There can be *no doubt* that the results were disappointing," and then adds the *Lancet*,—"the whole system should be amended and reconstructed." That reads plain enough. The *whole* system was *disappointing*, so much so that the *whole* system needs reconstruction. This certainly does not spell success. A new lock, a new stock, and a new barrel, before the old gun is fit for use! Somehow we prefer a new gun. Remember that it is the *whole* system. That was the verdict. Is it likely that a fragment of that system at present being tentatively tried in India, will succeed where the *whole* system disappointed.

It is not worth while criticising in detail the statements of Dr. Marshall. We have at hand a volume of notes on the treatment of gonorrhœa by the late Sir Geo. MacLeod, and these notes were taken before 1885. We have also a volume of treatment dated 1896. If Dr. Marshall will write out a statement of the great improvement in treatment between 1885 and 1895, which seems to him to explain most things, we shall be pleased to submit without alteration these old notes, and our readers can judge for themselves of the wonderful improvement in treatment, and what it all amounts to.

We shall also be pleased to learn how very modern our ideas have grown in the matter of the treatment of syphilis, and for that part of it, so also will the readers of the *I. M. R.* be glad to have the benefit of the modern ideas, on which Dr. Marshall puts such emphasis.

If Dr. Marshall agrees that hundreds are misled by Mr. Wilson simply placing in columns the figures supplied by the army authorities, letting them tell their own tale and quoting from the *Lancet*, it is very certain that almost no one will be misled by his article and his explanations. *His* three reasons why the acts failed may satisfy himself; they will not satisfy even those who attempted the system. He will have to go down a little deeper and more thoughtfully into the question on its physiological, sanitary and moral bearings, before he will be likely to produce anything seriously worth consideration."

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AN OLD BUT SUCCESSFUL TREATMENT FOR PLAGUE.*

By J. V. Ramaswamy Nayudu, L. M. & S,
Medical Practitioner, Madras.

Of all places visited by this pestilence, countries near the Mediteranean suffered much earlier, more frequently and for a longer time. It is natural therefore to expect that experience gained there will be useful in throwing some valuable hints for combating the disease in our country.

It was with this expectation that I went over some books on the subject that I could lay my hands on, and I found that among the various drugs used, there was one which was very highly spoken of as having been largely used with great success, which struck me as deserving a trial here also. I therefore made it my purpose to bring it to your notice.

The drug I mean is OLIVE OIL which is said to possess both preventive and curative properties.

*A Paper read before the Madras Medical Association on 18th November, 1898.

Mr. BALDWIN, the British Consul at Smyrna, observed that out of nearly a million people who died of Plague in Egypt in the space of four years, there was not a single oilman or dealer in oil. Taking this hint he suggested unction with Olive oil as a protective against Plague. The method was first tried in 1792 when 22 Venetian sailors repeatedly annointed with the oil lived for five days with 8 infected persons (all of whom died), without a single individual catching the infection.

Three Armenian families consisting of 27 persons were saved from infection by adopting this precaution, though they lived in the same floor and constantly attended on Plague patients.

The nurses in the Plague Hospital at Smyrna were effectually protected against infection by this method.

On the 14th June 1819, in answer to a question from a select committee of the House of Commons, Sir BROOK FAULKNER, Physician to the forces at Malta, said that the military attendants at the pest hospital were protected against infection by wearing a dress of oiled silk.

In 1804, Sir J. MCGREGOR recorded in the medical sketches for the year that during the Egyptian campaign, all men employed in applying oil to the feet of camels escaped the Plague.

Mr. JACKSON recorded in page 46 of a book on the Commerce of the Mediterranean, that the coolies working in the oil stores at Tunis smeared themselves with oil, and that they were rarely affected when the epidemic raged in the city.

The oil was subsequently tried as a curative in the early stage of the disease and found to answer well ; and for this purpose the oil was applied warm all over the body.

Though the preventive property of the oil was admitted by many eminent men, some were a little doubtful about its curative effects : even they unreservedly admitted that the abundant perspiration which it undoubtedly produced, was conducive to recovery in no small degree by expelling the poison.

Mr. JACKSON, in his account of a very destructive Plague which prevailed in Morrocco in 1719, recommended this oil to many, both as a preventive and curative. He said that the oil was eminently successful in both capacities.

Here is something more *authoritative* and *emphatic*.

The Rev. LEWIS of Pavia, Chaplain and Agent to Hospital called St. Anthony's at Smyrna, after trying this oil for five years, pronounced it to be the most efficacious of all remedies made use of during a period of 27 years.

His directions were simply these:—

" Immediately after a person is perceived to be infected with Plague, he must be taken into a close room, and over a brazier of hot coals, with a clean sponge dipt in warm Olive oil, his body must be very briskly rubbed all over, for the purpose of producing a profuse sweat. During the friction, sugar and Juniper berries must be burnt in the fire, which raise a dense and hot smoke, that contributes to the effect. The friction ought not to be continued more than four minutes, and a pint of oil is enough to be used at each time. "

" In general the first rubbing is followed by a very copious perspiration ; but should it fail of this effect the operation may be repeated, first wiping the body with a warm dry cloth ; and in order to still further to promote perspiration, the patient may take any warm Sudorific drink, such as elder flower tea &c. "

" It is not necessary to touch the eyes ; and other tender parts of the body may be rubbed more gently. "

" Every possible precaution must be made use of, to prevent the patient taking cold, such as keeping covered those parts of the body not directly under the operation ; nor must the linen be changed till the perspiration has entirely subsided. The operation should be repeated once a day until evident symptoms of recovery begin to appear ."

" If there are already tumours on the body they should be gently and more frequently rubbed till they appear to be in a state of suppuration, when they may be dressed with the usual plasters. "

" The operation ought to be begun on the first appearance of the symptoms of the disease ; if neglected till the nerves and the mass of the blood are affected or a diarrhœa had commenced, little hope can be entertained of cure : but still the patient should not be despaired of, as by an assiduous application of the means proposed, some few have recovered even after diarrhœa had commenced. "

It is a curious coincidence that the following passage occurs in the Bible and bears additional testimony.

" And they cast out many devils and annointed with oil many that were sick and healed them.—St. Mark.

" Is any sick among you ? let him call for the elders of the Church ; let them pray over him annointing him with oil in the name of the Lord "—JAMES. The oil referred to here was probably Olive oil.

Encouraged by the success which attended the external use of the oil in curing Plague, the oil was tried internally.

In 1820, two hundred persons were thus treated and the remedy was found to fail in 10 cases only.

Mode of administration was as follows.—

As soon as infection was caught (this probably means as soon as symptoms of the disease appeared) 4 to 8 ounces according to the strength of the constitution was given to the patient. This produced profuse sweating which seemed to expel the poison. The Sudorific action of the drug was aided by taking decoction of Elder berries (Sambucus Nigra).

The oil in some cases acted as an emetic, in others as a purgative, but profuse perspiration was a general rule and most favourable for recovery.

The efficacy of the drug was so great that the MOORS who were generally averse to taking any medicine internally, especially for Plague, readily took to it.

In a village near Tangiers a father who had lost his wife and four children by Plague, adopted this treatment and saved himself and four other children.

To render the drug more efficacious, the oil was subsequently used both internally and externally, with the result that scarcely one instance occurred in which this double application failed.

A Spanish physician who had been upwards of a year in Africa, cured by this means almost all the Jews affected by Plague in Tangier.

Of the 300 persons attacked since the beginning of

1820 and who adopted this treatment, the malady proved fatal in scarcely a dozen.

In the same year the disease was prevalent also in the Isle of France (Mauritius) where of all the medicines tried the following was found most efficacious; 2 drachms of camphor dissolved in an ounce of Sulphuric æther and mixed with a bottle of Olive oil. Two table spoonfuls of this was given every half-hour. This was supplemented by abundant *mucilagenous* drinks. M. Galmar treated 36 Negroes and cured 34 by this method.

The method of treatment is very simple. If a trial of this treatment here should result in success half as good as is mentioned above, it deserves in my humble opinion universal adoption.

My object in bringing this to your notice is that we should take advantage of the above facts and that a trial should be made of this method of treatment in the present combat against Plague.

The treatment may be improved in the light of the present state of our knowledge. If so, the combatants are at liberty to change their tactics.

I have reached the limit of the subject proper of this paper, but with your permission I wish to say something more.

Olive oil does not seem to stand by itself in the possession of the virtue mentioned above.

For:—

When Plague or a disease closely resembling it (known as Ghant-ka-rog) prevailed in the northern parts of India, Doctor McAdam has recorded that the people remarked those engaged in expressing oil were not liable to infection.—Transactions of Bombay Medical and Physical Society Vol. I. The oil spoken of here could not be olive oil.

When Plague raged in London, tallow melters and butchers were found exempt. The Esquimaux Tribes who regale on seal oil remain free. These facts seem to show that any oil may, any fatty material is protective against infection.

It therefore struck me that Nim oil of our country, should be much more efficacious in this respect as it possesses well known antiseptic properties, and that the inhabitants of some of the villages in the south who are partial to this oil should be immune to Plague

In the Theosophist for November 1898, it is mentioned that on the third day's Session of the annual Convention of the Theosophical Society, Doctor Edal Behram of Surat informed the members that he discovered a valuable secret of native doctors about Plague. He said that he had been working amid Plague about 2½ years, and had had charge of a hospital. He discovered that if one rubs his body all over daily with sessamun or gingely oil (thilka tel,) impregnated with the juice of Margosa tender twigs and leaves, his fever, if he has any, will be lowered two degrees within an hour, and he will recover unless the disease has gone on to the most acute phase. He believes it to be also a prophylactic.

The margosa twigs and leaves must be bruised and their juice squeezed out. The juice must be strained and then mixed just as it is (without dilution with water) with an equal quantity of Sessamun or gingely oil. This must be boiled until the water of the juice is entirely evaporated, (which is known by ceasing of the froth and the surface becoming smooth). This must be bottled and kept tightly corked to prevent access of air.

Now this may be efficacious but the preparation is not as simple as it appears, for we cannot get tender margosa leaves in abundance except in Spring. The maturer leaves do not yield much juice. Therefore why should not the seed oil itself be tried?

Native Physicians give the oil internally for many complaints.

The following is from (*Sarvovshathi guna kalpam*).

Nimba thylum jayath kustam vrana slashma jwarakrimeen.

Nim oil will conquer leprosy, ulcers, fever, and diseases caused by worms.

I think Nim oil if tried will conquer Plague also.

DIFFERENTIAL DIAGNOSIS OF INFLAMMATIONS AND TUMOURS OF THE ILEO-CÆCAL REGION*

By P. Sounenburg, M.D.

As inflammations and some other affections of the gall bladder, liver, kidneys and pancreas as well as certain disorders of the female pelvic organs may so simulate appendicitis as to confuse the surgeon, the following points will be valuable for differential diagnosis.

Tuberculous infiltrations of the ileo-cæcal region may be distinguished from carcinoma and perityphlitic foci, by the history of the case, which often includes symptoms of stenosis, but fails to reveal the characteristic attacks of recurrent appendicitis If however the appendix is itself the seat of tuberculosis the differential diagnosis becomes impossible.

Perityphlitic exudates like carcinoma are usually immovable, so to clear up any doubts about a movable swelling, inject the gut with air which cannot cause dilatation in the event of a new growth which stiffens the intestinal wall.

Investigation and various forms of intestinal obstruction may create doubts, but if there be tenesmus, bloody mucus in the stools, or complete obstruction of the bowel without passage of faces or flatus, the probabilities are against the presence of appendicitis, which can also be distinguished from psoas, iliac or spinal abscesses, which are flat and non-projecting, while there are no peritonitic symptoms and the pain extends more towards the genitals and right extremity, when the thigh is flexed or rotated inwards.

Though diseases of the gall-bladder and liver are hard to differentiate from perityphlitic exudates, still patient enquiry into the history of the case will often determine the diagnosis. Thus in gall-stone or hepatic colic the (*a*) most painful point is close to the border of the ribs and the pain (*b*) shooting towards the shoulders causes (*c*) persistent vomiting, whereas in appendicitis the pain (*a*) which is greatest in the ileo-cæcal region extends (*b*) towards the navel and the (*c*) vomiting is not so persistent.

While there may be jaundice in both cases the tympanitic zone existing between the abscess and the liver in perityphlitis is absent in inflammatory or calculous disease of the gall-bladder, where the area of dulness is in direct relation with the normal liver dulness; but empyema of the gall-bladder and dilatation due to gall-stone obstruction are hard to distinguish.

Appendicitis may also be confounded with pelvic peritonitis, acute perimetritis, perisalpingitis and perioophoritis; but while the position of the exudate is of utmost importance, the lack of intestinal disturbance and the relations of the suspected tumour will point to pelvic troubles, though when the appendix becomes attached to the pelvic organs, the position of the tumour is of little help towards diagnosis.

In pelvic troubles the pains extends toward the genitals, rather than towards the epigastrium and the signs of diffuse peritonitis are wanting, while in chronic pelvic disease just as in appendicitis there may be acute recurrences; but in the former the symptoms are almost always markedly increased during menstruation.

Pelvic peritonitic exudates usually form in Douglas' pouch and press the uterus against the abdominal wall. The uterine mucous membrane becomes congested and swollen, and the rectum excretes an abnormal quantity of mucus and exfoliates bits of membrane. In acute diseases of the adnexa, which are ushered in with vomiting and hiccough, the seat of the trouble is *ab initio* located in the vicinity of Poupart's ligament.

* Specially translated from the German for publication in the *Indian Medical Record*.

A MIRROR OF PRACTICE.

SUPPURATIVE RUPTURE OF A STRICTURED URETHRA : EXTRAVASATION OF URINE: PERINEAL URETHROTOMY : RECOVERY.

By James R. Wallace, M.D., F.R.C.S.I.
Member, British Medical Association,
Formerly Resident Surgeon, Medical College Hospital, Calcutta, etc.

On the morning of the 24th October last, Mr. R.——, a Scotchman, aged 52, consulted me for a painful swelling in the perineum accompanied by an almost entire stoppage of urine. He had suffered from urethral stricture for several years. Six years ago he underwent partial dilatation by catherisation, and obtained some relief for a few months. In March last the constriction returned and catherisation was resorted to ; but the patient suffered so much on this occasion, (while the smallest numbers which were tried and could not be passed into the bladder), that he relinquished treatment with the result that his urine dribbled from him constantly and gradually became more and more ammoniacal, causing intense irritation along the urinary passage. Latterly, about a fortnight before he consulted me, much increasing pain was felt in the perineum, and some swelling was noticeable in this part. On the 20th October, the patient got a rigor followed by fever. The urine became more intensely ammoniacal and the perineal swelling acutely painful. On the 24th the temperature rose to 104°F. the fever having been present since the 22nd, without any actual remission, and when I saw him that day I found on examination a hard, brawny, non-fluctuant swelling in the perineum, confined to the left side and stretching upwards into the left groin. No pus had been passed with the urine up to this time. I decided that the swelling was a threatening abscess due to extended inflammation from the stricture into the surrounding cellular tissue. I advised the patient to go to bed, which he did at 11 A.M. I saw him again at 9 P.M., and found the scrotum large, swollen and oedematous, with a similar condition of subcutaneous infiltration around the whole perineum, and left groin to within an inch and a half above Poupart's ligament. The penis was enormously swollen and dropsical. It was clear that rapid extravasation of urine was taking place, the temperature had risen to 105, the tongue was dry and red, the pulse rapid and intermittent, and generally the patient's condition seemed critical. I informed him of his danger, suggesting the urgent necessity of the operation of perineal section into the bladder, and free incisions into the extravasated area. With this object, I advised immediate consultation with Dr. Havelock Charles, Professor of Clinical Surgery to the Calcutta Medical College. The patient was seen by Dr. Charles at 8 P.M. and he recommended perineal urethrotomy and the free incisions suggested. Accordingly at 9 P.M., after thoroughly aseptic ising the whole area, the patient was chloroformed by Dr. Felostein, and I opened the urethra in the middle line of the perineum. From this incision, urine escaped freely, and the distended bladder emptied itself through this vent. Free incisions were made into the left groin, penis and scrotum. One cut was fairly deep in the median raphe, and gave exit to some pus. The wounds were freely dusted with iodoform and boric acid, and covered with iodoform gauze and boric cotton, held in position by a T bandage. By 8 o'clock next morning much of the œdema had subsided and within another 24 hours it was gone entirely, and with it the fever too.

Urine poured from the perineal wound for four days only, and as it ceased, the urine was observed to trickle from the unhealed incision in the scrotal raphe. This continued till the parts were all thoroughly healed. On the 14th November, that is 21 days after the operation, it was decided to attempt an entry into the bladder by means of a No. 1 catheter. After much difficulty, I succeeded in doing this, and also in passing Nos. 2, 3 and 4 at the same time. Five days later I got No. 5 into the bladder, and by continued daily gradual dilatations, I managed to introduce a No. 12 on the 3rd of December. This number will be used twice a week for three months.

It is very interesting to note, that four days after I began catherism, the fistulous opening in the scrotum ceased to have urine pass through it, and closed most effectually, so that not only had the patient recovered from a most dangerous and critical complication, such as extravasation of urine undoubtedly is, but also had his stricture relieved and practically cured. He also got rid of a very tormenting sequel in the form of a urinary fistula, (resulting as it did from the rupture of an abscess into his urethra), by the early resort to catherism, which precluded the fistulous tract from assuming a chronic and incurable form, as it often does by inflammatory fibrous changes occurring in it.

———:o:———

ANTISTREPTOCOCCUS SERUM IN THE TREATMENT OF PRIMARY VENEREAL SORES AND THEIR COMPLICATIONS*

By James Moore, F.R.C.S., Edin.
Belfast.

Whether the chancroid is an entity caused by the strepto-bacillus described by Ducrey, or an ordinary septic abrasion—the anatomical and physiological peculiarities of the genital organs accounting for the subsequent ulceration and complications—it certainly bears a very close relation to infection of a small wound by the streptococcus in any other region of the body. This analogy suggested to me that antistreptococcus serum might possibly have a curative effect on the chancroid, and prevent suppuration (or liquefaction) of the acute inflammatory bubo so often accompanying it.

Case I.—S. Y. consulted me on March 7th about pains in both sides over Poupart's ligament. He had had connection on February 28th, and on March 3rd noticed a sore in the coronal sulcus to the left of the frænum. On examination, I found four typical chancroids, three having been produced by auto-inoculation, two glands in the left groin and one in the right considerably swollen and very painful ; the outline of each gland could be easily felt, there being very little periadenitis. The patient informed me that the pain in the glands commenced about twenty-four hours before consulting me. I washed the glans penis in hot boric solution, dried with pledgets of

* Reproduced from the *British Medical Journal* by request.

cotton wool, and sprayed the sores for ten minutes with peroxide of hydrogen. I then injected 1 drop of pure liquid carbolic acid into the base of each ulcer by means of a fine hypodermic needle and ordinary hypodermic syringe, passing the needle about one-eighth of an inch into the tissues The ulcers were then dressed with a powder, containing loretin and zinc oxide, equal parts. The skin over the lower part of the abdomen was disinfected in the usual manner, and 5 c.cm. of antistreptococcus serum injected about an inch above and an inch to the outer side of each bubo, after allowing the patient to rest for about twenty minutes. A pad of sterile wool was applied over each point of injection, and kept firmly in place by a double spica bandage. I ordered the patient to bathe the penis for half an hour in as hot water as could be borne, and subsequently dress the ulcers with the above powder twice daily.

On March 9th the ulcers had a healthy appearance, the pain and swelling in the bubos had diminished The patient said that for twelve hours after injection the region around the point of injection was painful. A scarlatiniform eruption was present on the lower part of the abdomen and inner part of the thighs. I inject 5 c. cm. into each side as before, and continued the local treatment of the ulcers.

On March 12th three of the ulcers had healed, and only the parent ulcer remained, and healthy granulations covered the entire base. There was no pain in the bubos, and swelling was scarcely evident.

On March 19th the ulcer had healed, and there was no trace of bubo. I have seen the patient twice since, and he continues in health.

During the past eight months I have used this method of treatment in 48 cases of acute inflammatory bubo, and in only 7 cases did suppuration occur. In 3 of these the inflammation had been in existence at least four days. I have also used this serum in the following case of phagedænic chancre.

CASE II.—On July 6th I was called to see R.. who had been leading a very irregular life, in which alcohol played a very prominent part, for the past five years. He had a suspicious connection on June 4th, and on June 14th an ulcer appeared on the under surface of the glans penis implicating the frænum. From that time until my seeing him the ulcer had been practically neglected. I found the patient in a semi-comatose state, the skin dry and hot, the pulse 130, the temperature 104 3°F. On examination the under surface of the glans penis was entirely destroyed, and the urethra exposed. The discharge from the sore was offensive and sanious. The base was studded over with little patches of false membrane of a yellowish-green colour. On removing one of these a raw bleeding surface was exposed. The entire penis was swollen, of a dark-bluish colour, and presented numerous bullæ. The glands in the region of Poupart's ligament were not swollen. There was no rash on body or limbs The fauces were congested. I ordered the penis to be immersed in a hot solution of mercury perchloride (1 in 5,000) for two hours, and twice daily; in the intervals iodoform was to be dusted on the ulcer, and the penis wrapped in gauze wet with the hot solution, and changed every twenty minutes. Into the right leg I injected with the usual precautions 10 c.cm. of antistreptococcus serum, and ordered him small doses of strychnine with tr. strophanthus, mv, every four hours.

On July 7th the temperature was 102°, and the pulse 120. The patient was brighter and answered questions more readily. There was no change in the ulcer. Some of the bullæ had disappeared from the penis. The right leg was red and swollen for about six inches above the point of injection. The inner side of the thigh showed a scarlatiniform eruption. The glands in Scarpa's triangle of the same side were enlarged. I ordered lead and opium lotion to be applied to the swollen part around the point of injection, and continued the baths, etc., and general treatment.

On July 8th the patient was much brighter, the pulse was 105, and the temperature 101.5°F. The swelling in the right leg and glands had diminished. The ulcer showed much less false membrane, and the discharge was less sanious. I continued the general treatment, and injected 10 c.cm. of serum into the left arm.

On July 10th the pulse was 98, the temperature 100°F. and the general condition was much improved. The discharge was purulent, with streaks of blood. The false membrane had almost entirely disappeared, and the bullæ entirely. The penis was less swollen, and had a healthy appearance.

I was now at a loss to know whether the hot antiseptic baths to the penis, with iodoform to the ulcer in the intervals, combined with the general tonic treatment, or the use of the antistreptococcus serum was responsible for this happy result. I saw the patient daily for six days; did not inject any serum, but continued local and general treatment as formerly.

On July 16th the pulse was 115, the temperature 103°F. The penis was swollen and painful. The discharge from the ulcer was sanious The base of the ulcer on clearing away the discharge showed numerous cup-shaped depressions. There was no extension of false membrane. I injected 10 c. cm. of serum into the right arm.

On July 18th the pulse was 98, the temperature 100°. The swelling and pain in the penis had abated, and the ulcer looked healthier

On July 19th 10 c.cm. of serum were injected, and I gave 10 c. cm. of serum every third day up to July 28th. On that date I noticed two undoubted mucous patches on the left tonsil, and a few small papular syphilides on the abdomen, chest, and face. The temperature was 99°F., the pulse 82. The ulcer was one-third of its original size, and healthy granulations covered the entire base.

On August 1st the patient was convalescent, and taking small doses of mercury and iron.

I have to thank Dr. CALWELL for kindly advising me in reference to the condition of the patient's heart and lungs.

From my experience with antistreptococcus serum in venereal sores and their complications, I have arrived at the following conclusions:

1. While recognising the great importance of early local antiseptic treatment of the chancroid, I believe that if 5 c. cm. of the serum is injected subcutaneously into each inguinal region in cases in which inflammatory bubo is likely to develop, it will prove a good prophylactic measure, and assist in healing the chancroid.

2. If inflammatory bubo has already developed, and the acute inflammatory symptoms have not been present more than forty-eight hours, 10 c. cm. injected into the inguinal region corresponding to the inflamed gland will cause resolution in the majority of cases.

3. If there is evidence of pus formation the serum may possibly limit the extension of the suppuration, but in this class of case my results have been anything but satisfactory.

4. The serum should always be injected into the area drained by the infected gland, preferably the right and left inguinal region. I have not seen good results by injecting it into remote areas.

5. In phagedænic ulceration complicating venereal sores, this serum would appear not only to neutralise the toxins in the blood, but also to bring about a healthy condition of the ulcer.

Indian Medical Record.

16th December 1898.

THE THIRTIETH ANNUAL REPORT OF THE SANITARY COMMISSIONER FOR BENGAL, YEAR 1897.

II.

CHIEF DISEASES.

CHOLERA.

CHOLERA statistics may be accepted as fairly accurate. It was less prevalent during 1897 than during 1896, the mortality figures being 2·76, against 3·19 per 1000. Of the total 45 districts, there was an increase of cholera in 23 and a decrease in 22. Taking the 27 districts that were unaffected with famine, there was an increase in 15 and a decrease in 12.

That diseases such as cholera should fluctuate from year to year is surely one of those universally admitted facts which we all confess our impotence to explain ; not so the report before us, red tape demands an explanation for everything, let us see what it is.

The Sanitary Commissioner has told us that the low death-rate " was due chiefly to the healthiness of the year, consequent on the exceptional dryness of the previous year," and again that it was " chiefly due to less cholera and fever," therefore the decrease in cholera was according to him due to the failure of rain in the previous year.

The Civil Surgeons however appear to hold the opposite view for we read, " The civil surgeons of other districts which were severely affected, attribute the outbreaks more or less to a deficient and polluted water supply, caused either by the scanty rainfall of the previous year or by the serious deterioration of tanks, wells and small streams by the upheaval of their beds by the earthquake of the 12th June. In some of the famine-stricken districts the epidemic is said to have been brought on by the people largely living on jungle products and other unwholesome food."

As the earthquake was pretty general, it does not seem clear why cholera should follow it in some places and not in others, and if it was a potent cause of cholera why was there a general decrease in the disease. As for the theory that cholera was due to the consumption of unwholesome food in the famine districts, it is met by the fact that there was an increase of the disease in the majority of the districts unaffected by famine.

DISINFECTION OF WELLS.

Some experiments were made on the effect of disinfecting wells by lime or permanganate of potash. Out of the 15 districts in which the experiments were tried, we are only given the results obtained in Lohardaga district and Ranchi town, these are extremely favorable, but not sufficiently extensive for the formation of any definite opinion.

ANTI-CHOLERA INOCULATIONS.

During the year, 10,950 persons were inoculated against cholera. We read that, " The record of results of inoculations is unfortunately incomplete like that of the preceding year," no doubt from changes, and an insufficient staff. Surgeon-Captain VAUGHAN who was in charge of this important work was sent on military duty on the 3rd August.

We read in one place that the inoculations are strictly voluntary, and in another that " Messrs. DRIVER and STAINFORTH and Mr. MATHEWSON, the principal forwarding agents in Purulia, are very particular to have every cooly inoculated before they are despatched." There is a suspicion of a disagreement between the two statements.

The general idea is that the inoculations are beneficial. With reference to Hazaribagh town and Central Jail where they were tried, Surgeon-Captain NOTT reports, " On the whole little is to be gathered, either favourable or unfavourable, from the inoculations performed in the Hazaribagh town and Central Jail" but then the virulence of the epidemic had subsided before they were begun.

SMALL-POX.

The death-rate from small-pox was ·27 against ·18 for the previous year.

FEVER.

The death-rate under this heading was 23·62 against 24·76 for the previous year and 19·81 average of the past 10 years. The statistics are quite unreliable. A death-rate of 23·62 is very high, but what the meaning of " fever" is no man can tell, in fact we are in entire ignorance of the nature of the diseases which cause the greater part of the mortality in the province of Bengal. With the possible exceptions of cholera and small-pox, every disease is to be found heaped together under the all embracing name of " fever."

That this is the case is freely admitted. Under the head of " dysentery and diarrhœa" the Sanitary Commissioner says that the number of deaths from this cause is larger than the number registered " many of these are erroneously reported under other heads of diseases (cholera, fever, and other causes) by illiterate Chaukidars."

The Civil Surgeon of Hazaribagh is reported as saying " No doubt a very large proportion of the over 40,000 deaths returned as from fever, more accurately should have been returned under this head, (dysentery and diarrhœa) though fever, whether symptomatic or really malarial, probably was a sufficiently prominent symptom to excite attention."

This being so, we think it is mere waste of time constructing maps and diagrams of the prevalence of "fever" in the different districts, and carefully tracing its fluctuations from year to year in different places with vast statistical details.

In discussing the question of fever we note that every argument is based on the assumption that "fever" is malaria, this assumption is by no means warranted.

We are grateful to the Sanitary Commissioner for giving us a map of Lower Bengal illustrating the character of the soil.

The soil of Lower Bengal is here divided into alluvial and older formation, a great belt of alluvium forms the valley of the Ganges ; stretching south and west from Bhagalpur and Rajmahal we have the greater part of the older formation.

Time out of mind malarial fever has been held to be a disease of alluvial soil, and accordingly we would expect to find it more prevalent in the Ganges valley than in the older formation. A glance at the "fever" map will show

that this is not the case, the Ganges valley is not depicted as suffering unduly from "fever."

Puri, which shews the smallest amount of fever is alluvial, while Hazaribagh which is one of the districts showing the greatest, is in the older formation.

Pabna heads the list of "fever" mortality in 1897 and the Civil Surgeon explains it by saying that the increased prevalence of "fever" in the year may be attributed to the scanty rainfall. A variation in the rainfall appears to be a god send to these officials, when seeking for an explanation of anything unusual in the health conditions of their districts, it is a universal solvent suitable to the most diverse circumstances.

Sanitary Works (Civil).

Under this head we find :—"It will be seen that only 15 Municipalities spent over 10 per cent. of their income on original sanitary works against 17 in the previous year, while 37 municipalities spent nothing at all on this account as compared with 28 of the preceding year. It is disappointing to find that such important towns, as Raniganj, Hooghly, Bhadreswar, Balli, South Suburban, Berhampur, Noakhali, and Bettiah, did not devote anything for new sanitary works."

On page 57 we have a table showing the "effect on the public health of large and important sanitary works." For fear we should expect too much, we are told that, "As the registration of vital statistics was very defective prior to 1890, no definite conclusions can yet be drawn from the figures" in the table.

Examining the table we find that out of the 14 places mentioned, the statistics of which we are not told to distrust, the introduction of important sanitary works was followed by an increased death-rate in six.

This is not a result to brag about, and does not speak very highly in favour of the introduction of large and costly drainage and water work schemes

In matters pertaining to sanitation it is always the old story of the leper king, the old hankering to do some great thing; we all know the extraordinary readiness with which Municipalities embark upon the most expensive projects, while things that appear trivial are slurred over or cast upon one side. These important works once executed how are they looked after and supervised? An important side light is thrown upon this question, in so far as it relates to Lower Bengal, by the inspection reports of the Sanitary Engineer. These inspection reports are excellent in form and matter and offer the most interesting reading Let us follow Mr. Silk in his inspection of the Bhagalpur Water Works.

These works were opened in 1887 and extended in the year 1897, the total cost has been Rs. 6,14,107, but the final bills for the extension have not yet been paid.

"At the time of my inspection" Mr. Silk writes, "the mouth of the intake pipe was entirely closed by an accumulation of brushwood and silt" * * "the form of the intake must be entirely altered."

"The practice of bathing above the intake has not been entirely stopped."

"The pumps of the two rotary engines have given considerable trouble during the year, owing to the suction valves not having been properly and regularly examined and repaired. The thumping and irregular working of these pumps is positively terrifying, and it has always been a matter of surprise to me that the pumps have not knocked themselves and the engine house to pieces long ago."

"No record whatever of the work done by the engines was being maintained by the Superintendent."

"The boiler houses were in an extremely untidy and dirty condition."

"At the time of my inspection the filter beds were in a most unsatisfactory condition, and no attention was being paid to the rules issued by the Sanitary Board."

"The general condition and appearance of the pumping station has been gradually deteriorating within the last three years," &c., &c.

Of the Mymensingh water works, filter beds, he says:—"The appearance of these was not at all pleasant as they were swarming with frogs and other aquatic reptiles."

The inspection report on the engines shows that every possible means had been taken to let them get out of order.

Dacca Water Works.

Regarding the intake for the Dacca water-works we read: *The intake.*—The following extract is taken from my report for 1896 :—

"In the report for 1894 attention was directed to the danger of mooring boats on the up-stream side of the intake, and in 1895 it was reported that a bye-law had been passed to prevent this. I regret, however, to have to report that, although a bye-law may have been passed, boats are allowed to moor above the intake just as much as ever. This is a very serious matter, for, as the case stands at present, the urine, sullage water, and not to mention night-soil, of the crews of 40 or 50 boats, pass down in front of the intake; these are mixed with river water undoubtedly, but it is almost certain that the suction pipe will draw in some of the diluted sewage."

"It seemed to me, at the time of my inspection, that so far from the mooring of boats in the neighbourhood of the intake being prevented, their numbers had increased, and to make matters worse the channel, into which the suction pipe dips, has much deteriorated from the advance down stream, of a large *chur*; the water-supply of Dacca is therefore at present derived from nothing more or less than a back-water of the river, heavily polluted by a large floating population."

Filter Beds.

"On enquiring what thickness of fine sand was in the filters, the Superintendent informed me that it was about 1' 7" or 1' 8", but when I came to dig up the sand in No. 1 filter, I found it be only 11"; the Superintendent has since reported that the thicknesses in filters Nos. 2 and 3 to be 1' 3½" and 1' 5½" respectively. The Superintendent's verbal statements have therefore been shown to have been unreliable. Filter No. 1, should be thrown out of work at once as the sand is much too thin and steps must be taken to bring the thickness up to at least 2'0" with freshly washed sand at a very early date. In the Sanitary Board's Circular No. 11, dated the 15th November 1894, it is stated that sand layer should never be allowed to get below a certain thickness of about 12", and further it is laid down on the rules for working filter beds in Bengal, rule 8, forwarded to the Chairman with Sanitary Board's letter No. 3538B., dated the 9th July 1896, that the fine sand in a filter bed should never be

reduced by scraping to a less depth than 12." I am really at a loss to understand why there should be so much difficulty in attending to very simple rules, so simple that they are quite intelligible to any non-professional man, and I consider it to be one of the duties of the Chairman and the Municipal Commissioners to visit the pumping station occasionally and see that these rules are being attended to."

These inspection reports, from which we have only quoted at random, form an overwhelming charge of the most culpable negligence in the administration of the important sanitary works, from which so much has been expected.

In conclusion, we append an extract showing the undermanned state into which the sanitary administration of Bengal was allowed to fall, owing to the paucity of medical officers on military duty in India.

"It will be seen that for half the year, which included the working season, there were no Deputy Sanitary Commissioners, all three having been ordered to military duty in connection with the disturbances on the North-Western frontier. There is, therefore, very little to show as to the work of these officers during the year under report."

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QUACKERY AND QUACK ADVERTISING IN INDIA.

III.

VERY closely allied to, and hailing from the same part of Calcutta (Lower Chitpore Road) as the "Ayurveda Sangraha" of Kaviraj NOGENDRA NATH SEN GUPTA, is the "Ayurveda Prochar" of MESSRS B. L. SEN & Co.

This is a pamphlet of 48 pages, it does not set up to be a *Medical Journal*, and is not adorned either with vile illustrations or fulsome press notices; it is simply a price catalogue of quack remedies with the usual unscrupulous lying statements as to their wonderful properties in all sorts of diseases. It also contains a large number of private testimonials.

We are told that this is "the Oldest and only Reliable Ayurvedic House in India," and that "it is under the direct supervision of a physician of vast experience and learning." The names of two so-called physicians appear, Kaviraj BINOD LAL SEN, and Kaviraj ASHUTOSH SEN. We need hardly remark that their names are not to be found in the Directory and that they have no claim whatever to style themselves physicians at all. There is a strong resemblance between the drugs advertised by these two firms, except that they go under different names, and it is fairly safe to assume that they are connected and carry on their nefarious trade in common.

We have seen that the "Ayurveda Sangraha" advertises a so-called specific for malaria called "Panchatikta Batika"; the "Ayurveda Prochar' has one also called "Rishabhak Batika" in both cases the effects of these drugs are compared with those of quinine in parallel columns: in each case the wording is exactly the same and the same wonderful results are claimed for each of these Ayurvedic drugs, while every effort is made to discredit quinine and to persuade the readers that it does more harm than good.

Considering the universally acknowledged specificity of quinine, and the beneficent efforts of government to bring it within the reach of all, this action on the part of these quacks appears to us to be almost criminal.

In addition to the "Rishabhaka Batika" we find "Bhunnibadi Kashaya" which is also represented as a safe and infallible remedy for malarious fevers of all kinds, with or without enlarged spleen and liver."

Both these firms advertise a compound to which they give the name "Makaradhwaja," one says it was a gift from the "great god Shiva" the other that "it was probably discovered in course of the search for the Elixir of Life."

Of course it cures everything, we read that "the marked and undoubted benefit derived from its use in *all* (sic) diseases, is not only extremely astonishing but highly mysterious."

When a remedy cures *every* disease, it is naturally somewhat invidious to draw fine distinctions in describing its effects, but it is certainly a remarkable thing that this remedy seems to have different results in the hands of these two quacks. No. 1. says it cures all sorts of fevers, allays anoroxia, dispells all sorts of neuralgic pains, removes every kind of disorders of the respiratory organs, digestive function, etc. No. II. says it "may be specially recommended in general and nervous debility, a general break-up of the constitution, chronic and other malarial fevers, cough, loss of memory and other intellectual faculties," gonorrhœa, gleet, spermatorrhœa, skin diseases, female complaints, etc. etc., for more complaints than we have space for.

Below we have the following testimonial which, if genuine, we can hardly imagine was meant for public circulation.

SHAIKH JAMIRUDDIN, Vaccinator, from Rajarampur, Raniganj (*Dinajpur*) *writes* :—"During the nights, I was an awful victim to *night pollutions*. Your *Superior* and *Genuine Makaradhwja*, produced a very salutary effect and at once stopped those nocturnal seminal involuntary discharges."

It is perfectly evident from their catalogues that these quacks find it particularly advantageous to their illicit trade, to thrust under the eyes of the public, all sorts of supposed remedies for nervous diseases, female complaints, impotence, sexual disorders, etc. All such are freely advertised with plausible and artful suggestiveness.

The influence exerted by such advertisements is an immoral one, and it is impossible to exaggerate the baneful and degrading effects that the perusal of such literature must have upon the minds of many of its younger and more ignorant readers.

In the interests of morality and public health we think it is high time that some steps should be taken to check the unbridled license displayed in this style of advertisements.

In the catalogue before us we have the following *Brihat Chhagaladya Ghrita*, "extremely useful in" ° ° ° general debility arising from despair, hopeless love, excesses and abuses ° ° ° It is the finest aphrodisiac known."—*Tala-Kalyana Ghrita*.—"Is an aphrodisiac ° ° ° It is very useful to females that are barren ° ° ° It capacitates barren women for conception ° ° ° If taken by males it acts as an aphrodisiac."

Chyavanaprasa for "gonorrhœa, spermatorrhœa and all other enervating diseases."

Sita-Kalyana Ghrita.—"It is very useful for all sorts of complaints of females regarding menstrual flow, * * specially indicated in leucorrhœa."

Himsagra Tatla "is a boon to persons suffering from impotency." It is amusing to read that, "It relieves severe aching and cutting pains occasioned by a fall from a horse, camel, or elephant or any other high place." Surely the ingenuity of quackery cannot go further than this specific for a fall from a camel!

Maha Kameswara Modaka.—"It has the greatest aphrodisiac action and is used in Impotency with satisfactory results."

Ashwa-Gandha Ghrita.—"It is a very powerful remedy" * * for persons suffering from spermatorrhœa. It is so very potent in its action that it is said to rejuvenate (sic) old and infirm persons and to remove sterility. *As a nervine tonic* it is unrivalled * * * can be safely used by children."

Madanananda Modaka.—"Is highly potent in curing Impotence. It is one of the best aphrodisiacs extant * * * also used in spermatorrhœa."

Kumara-Kalpa-Druma.—"Excellent cure for sterility * * * very useful to females and * remarkable and useful to those who do not menstruate or have not menstruated at all * * * renders women capable of conceiving."

Amrita-Prasha Ghrita.—"The most powerful remedy for curing Impotency and for restraining seminal wastes, * * * bestows on the patient eternal youth, so to speak, * * also cures all sorts of gonorrhœa."

And so the list goes on for another three pages until one is inclined to think that half the natives of Bengal are suffering from impotence, spermatorrhœa, sterility or gonorrhœa and that the chief necessity of their life lies in an aphrodisiac. We cannot however find space for any more of this disgusting rubbish.

As to the prices charged, we can only say that they are as exaggerated as the promises. For one tola (one rupee weight) of one of their remedies, these swindlers have the brazen faced impudence to charge Rs. 80.

As a supreme effort in therapeutics we may allude to "Saraswatarista" "restorer of memory and voice." This wonderful compound we are told "sharpens the intellect enabling men to follow the most abstruse reasoning, and invigorates the mind so that long and deep thinking, prolonged studies and night-keeping (sic) do not strain or tire the system." In the following sentence the advertiser appears to have been indulging his satirical vein, he says, "The medicine is really an inestimable boon to Students, Singers, Actors, Orators, Lawyers, Stammerers and others whose power of articulation is defective" surely this is rather hard on the Orators and Lawyers?

There is no getting to the end of the magical effects attributed to some of these drugs, so that we are not surprised to find that the above in addition to all its other virtues, is a cure for gonorrhœa as the following testimonial plainly shows.

BABU AKHOY KUMAR CHATTERJI, of Salap, District Pabna, *writes* :—The *Chronic Gonorrhœa and Gleet from* which I have been suffering, has all but disappeared by the use of three bottles of your *Saraswatarista.*

It remains for us to bring to notice the medical men whose names are to be found in this quack pamphlet as giving testimonials to the authors. They are as follows.

Guru Gobinda Sen, L.M.S., Late House Surgeon of the Calcutta Mayo Hospital.

Adyanath Bose, L.M.S., Bhowanipore.

Ganga Dhar Roy, L.M.S., 24-Pergannahs.

Dr. Kali Prosonna Mukhopadhya, Medical Practitioner from Jalpaiguri. This gentleman says "I have given up practising as a doctor since I had the good fortune of noticing the wonderful effects of your medicines."

If he is the gentleman who appears under nearly the same name in the Calcutta Calender, the university might take notice of this naive admission of incompetence.

Dr. N. Banerjee, L.R.C.P., M.R.C S., (London).

Dr. D. N. Chatterjee, M.B., C.M., (Edinburgh) Calcutta.

Dr. U. Gupta, M.D., (Edinburgh and Philadelphia).

Dr. R. G. Kar, L.R.C P., (Edinburgh) Calcutta.

Dr. J. N. Mittra, M.R.C P., (London) Calcutta.

Dr. Subhada Prasad Mukherjee, Birbhum.

Babu Sashi Bhushan Ghose, Medical Practitioner, Chandpala, Barda, (24 Pergs.)

Dr. H. W. Mitnish, M.R.C.S., London and Late Civil Surgeon in the Punjab

Dr. Udaya Chand Dutta, Civil Medical Officer, from Serampore.

A distinguished lady doctor from Pataldanga.

Dr. Nilmoni Das, Charitable Dispensary, Chirawar.

Dr. Bipin Behari Mitra of Jagdal, District Dinajpur.

Dr. Chundra Kanta Chuckerburtty, Kanain Hospital, Cachar.

Dr. Sarat Chandra Sen, District Mymensing.

Dr. Ananda Chandra Gupta.

We give the above names as they appear in the quack catalogue. To the title of Doctor, none of them have any claim while guilty of such conduct.

Some of them are easily traced, and it is to be hoped that their universities will see their way to impress upon them the infamy of their conduct from a professional point of view.

Some are evidently not qualified practitioners at all, and others it is difficult to trace, owing to the want of that proper system of registration, the absence of which the Secretary of State for India so highly approves.

The necessity for discipline in the medical profession is so obvious, that it is extraordinary the authorities are so loath to recognise it, it is a very different case in the legal profession.

It is hardly necessary to allude to the revelations that have so recently occupied the attention of the English press, to point the moral.

The most severe disciplinary measures should be at hand to be put into force against qualified practitioners who league themselves with quackery.

Medical Education in India is indeed in a bad way when the highest authorities set their faces against the introduction of such measures, and when the universities see their diplomates prostituting their calling in this disgraceful manner.

MAJOR-GENERAL H. R. MORGAN ON THE TREATMENT AND PROPHYLAXIS OF PLAGUE.

We have received a copy of what we must call a very remarkable communication, addressed by Major-General H. R. Morgan to the Resident of Mysore on the subject of "Plague Inoculation etc."

The object of the communication is to suggest an alternative to Haffkine's inoculation method in the prophylaxis of plague, which may be employed in cases where there is an objection to the latter.

As General Morgan says, "It occurs to me that perhaps their scruples might be overcome, if we were to rely upon the veneration for the cow professed by all Hindoos, and they might be induced to try the protective treatment, if it could be introduced into the system in cow's milk."

The ideas upon which the new protective treatment are based will be gathered from the following brief account of experiments which General Morgan gives, the treatment by the way is said to be curative as well as protective.

"Record of General H. R. Morgan's serum experiments."

"Rinderpest in 1890."

2. In 1890, out of a herd of 40 cattle, I lost 25 head, (13 cows, 12 calves), from cattle plague, which murrain was then raging in the district, running its fatal course in five days. The usual treatment having failed, and six other beasts being affected, I heard that a raw preparation of a diseased animal, its flesh macerated in water at a temperature of about 65°F. was a certain cure, administered internally, so I resolved to try it. I took the flesh of beasts which had been dead not more than 24 hours, (the fresher the better), cutting it from the hind legs where it seemed quite fresh, made the broth raw, and gave it to these six animals, when only one died, a full-blooded Aden bull, to whom it was given too-late."

"There were five other animals in the herd which up to this time had not been affected by this rinderpest, so the broth was given to them as a prophylactic, and none of them took this plague."

"Some milkmen in Ootacamund were advised to try this remedy. They did so in 12 herds and saved their animals, which till then had been dying daily."

"In none of the animals, sick or well, treated with this raw broth, was there the slightest constitutional disturbance observed."

The dose of the strained raw meat extract was one pint twice a day to grown animals and half pint to calves.

We need scarcely remark that the terms "*Serum experiments*" and "*Serum method of treatment*" are complete misnomers in the connection, while the expression "*raw broth*" is merely a contradiction of terms.

What was used was simply a raw meat extract.

"Chicken Cholera in 1891."

"In 1891 my poultry were attacked by chicken cholera, a meat extract, as before described, was made from the bodies of two fowls found dead in the morning, only the flesh being used, before signs of decomposition appeared. Result, "only two died out of 85, *i.e.*, none at all after the use of the serum treatment" (sic).

"The birds which seemed unable to pick up food were considered ailing from the disease of which the two others had died, so they were first treated with the raw broth, (sic), which was poured down their throats, a teaspoonful at a time, several times a day."

"In the evening the invalids were able to take a little warm soft mash of boiled rice. The birds which were unaffected, had some of the raw broth, (sic), mixed with their usual food, and the disease did not spread."

Foot-and-mouth Disease, 1898.

"In September 1898, foot-and-mouth disease appeared at Salatha in my herd of 60 cattle, in common with those of surrounding villages; 7 were attacked, of which 1 cow and 3 calves died straight off. It must here be noted that foot-and-mouth disease is most fatal to English cattle and all calves.

"The usual treatment having failed to check the course of the disease, the following experiment was tried.

"A country cow, three days after recovery from the attack, was milked twice a day, giving 3 pints of milk in the morning, and 4 pints in the evening.

"An English bull in the early stage of the disease (1st or 2nd day) was so ill that he could not eat grass; so this cow's milk was given to him in a warm, soft, bran mash, one pint of milk in the morning, and one pint in the evening when the disease at once diminished in severity, imflammation subsiding and fever abating so rapidly, that the attack ran its course in half the usual time, (*i.e.*, in 4 days, instead of 8 days), and on the 5th day he grazed spontaneously on the hill side. The whole of his mouth was raw, so it was considered dangerous to give him serum broth made from the flesh of the dead cattle, for fear he might get blood-poisoning by having this fluid applied to the raw surface of his sore mouth, so the milk of the convalescent cow was tried instead, and it did no harm, but seemed to have really a curative effect, without any constitutional disturbance.

"The rest of this cow's milk, 5 pints, was divided among six calves, twice a day, when they also improved at once, and were able to suck as usual. Both the bull and the calves had this treatment for only one day. On their convalescence this cow's milk, given in bran mash, was divided among 15 other cattle which became affected, (7 cows, 8 calves,) all of which quickly recovered, it being given to them as soon as they were found to be attacked.

"The rest of the herd were separated from the sick ones and the disease did not spread among them. The milk of this cow was given to them as a prophylactic."

The General's theory is that an antitoxin is ingested which has a curative and prophylactic effect, and makes suggestions for the application of his method to plague, briefly as follows.

A rabbit is to be inoculated with plague serum as soon as it has died, a raw meat extract (raw broth) is to be made. This extract is to be given to healthy rabbits to see if it gives them plague, also to plague-stricken rabbits to see if it cures them. "If they do recover from plague" he says "it will show that their serum has antitoxin in it" a rather rash conclusion.

Then the extract is to be given to a cow and the effect of its milk on plague stricken rabbits noted.

Such is a fairly full account of General Morgan's *experiments* and somewhat naive suggestions which we do not fancy our readers will be inclined to take too seriously; on the other hand his *bonafides* is undoubted, and it would be unfair to altogether laugh him out of court.

We do not think that the Bacteriologists need feel any pangs of jealousy at the invasion of their domain by an outsider, it is only too evident that General Morgan is too ignorant of all that pertains to the subject on which he has let himself loose, to excite any feelings beyond those of astonishment and perhaps amusement.

Always supposing the diagnosis to have been correct, it is within the bounds of possibility that his meat extract was swarming with the special micro-organisms and their products, of rinderpest and chicken cholera, though the muscular tissue is not usually held to be their place of selection.

In such a case his extract should have proved itself a fertile source of infection, that it did not, but on the contrary appeared to have curative effects, may perhaps be taken as an addition to our knowledge of the therapeutic effects of meat juice.

Of a totally different character are the immunising and curative effects attributed by him to the milk of a cow recovered from foot and mouth disease. If the serum of an animal that has got well from an infectious disease possesses these properties, why not the milk? The argument is plausible enough, though it of course by no means follows that because the serum contains an antitoxin the milk does also. All things being considered however, the result put down to the milk treatment are altogether too wonderful to be accepted; and while General Morgan's experiments may be taken as suggestive, it must be clear to any one acquainted in the smallest degree with bacteriology that they prove absolutely nothing.

The few scraps of medical literature, culled from various sources which General Morgan ends up with as bearing upon, and giving some support to his theories, are irrevelant to an extent which is amazing and evidently quite beyond the grasp of the author. The last paragraph states that Veterinary Surgeon Edwards has cured 23 cases of rinderpest out of 25 seizures by means of raw meat extract made from the flesh of animals that has died from the disease.

General Morgan has kindly contributed a paper on the above subject which appeared in our last issue and to which we may refer the reader for fuller details.

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THE HARD CASE OF THE PRIVATE PRACTITIONER IN INDIA.

We have over and over again inveighed in these columns against the close condition of medical practice in India, and the frightful and most unjust extent to which the private practitioner is handicapped. Competition which does good in all branches of work and commerce, is not welcomed in medical practice in India, and the man who embarks upon it, has a hard and bitter fight before him, which too often appears to lead to no road except that of ruin and despair.

Officialism is rampant everywhere, the state paid doctor is all powerful, he is in possession and however unequal to the work there is to be done, he resents the presence of an unofficial confrere, who is looked upon as an intruder. The Civil Surgeons' domain is a close borough, and all is official favour, selfishness, and the Indian Medical Service.

We have had brought to our notice recently a particularly deserving case, which has obtained our utmost sympathy, as we are sure it will, that of our readers.

We refer to the case of Henry D. M'Culloch, M.D., M.S., L.M., who on the 12th July 1897, opened by private enterprise, an Eye and Ear Infirmary in Delhi.

This Institution was opened, and his half yearly report which is now before us, says, "with the treble object of affording charitable relief to those of the indigent poor afflicted with blindness, and diseases of the eyes leading thereto, and diseases affecting hearing, as an aid to ophthalmic practice and increase of experience to be gained in a very wide field of surgical knowledge as well as an aid to private practice."

That there is room for an institution of the kind in Delhi there can be not little doubt.

Delhi has a population of 200,000 and yet in ten months there were only 34 operations performed for the extraction of the lens for cataract. On the other hand in Amritsar, with a population of 120,000 there were 775 extraction operations performed in 11 months, while in the Mayo Hospital, Lahore, there were 827 during the year.

There is no special Government Eye Hospital in Delhi, and the above figures shew plainly enough, that the facilities presented to the public for the treatment of eye diseases are not nearly sufficient. This being so, Dr. M'Culloch's venture was amply justified, and it is equally obvious that he was trespassing upon no one's domain, but striking out a distinct line for himself, and one which, if supported properly, would result in enormous benefits to the general public.

We regret to learn that this institution has not met with any adequate support either from Government or from wealthy private individuals.

The total expenditure for the six months ending 31st December 1897, was Rs. 2,218, the itotal income was Rs. 99. The difference has to be met by Dr. M'Culloch who, we regret to say, is by no means in a position to thus lavishly give both his time, skilled ability, and money, without reaping any return.

By all the leading civil officials, his work has been tacitly ignored, and in India when official patronage is withheld, we regret to observe, that wealthy individuals are very slow to come forward.

The sad result is, that here in their very midst in the once proud capital of the Moguls, a work, a charity, which should appeal their tenderest sympathies is ignored, passed over and left to the despairing efforts of one private individual.

Should this state of things continue we are sorry to learn that Dr. M'Culloch's charitable venture must soon come to an untimely and unfortunate end.

From amongst the officials who have passed by on the other side, we must except Colonel R. A. P. Rennick, then commanding at Delhi, who not only visited Dr. M'Culloch's Infirmary with his staff, but also unsolicited, gave the founder a testimonial expressing his sense of the good work that was being done in the institution. "The Public," Colonel Rennick says "hardly knows the really humane and good Christian work Dr. M'Culloch is engaged on. The desperate and hopeless cases I have seen under treatment which promised every success, gave me

ample evidence of his earnestness and devotion to the treatment of the blind which ought to secure for him every support and encouragement." To the testimonial was added a valuable donation of Rs. 50.

We ought perhaps to mention some particulars concerning the personality of Dr. M'CULLOCH who is a Scotchman holding the degrees of M. B. and M. S. of Edinburgh and the L. M. of the Rotunda of Dublin. We have before us a number of his testimonials all of which speak of his early career in terms of praise and appreciation.

From a testimonial signed by Lieutenant-Colonel D. W. K. BARR, late Resident in Kashmir and Agent to the Governor-General, Central India, we learn that Dr. M'CULLOCH was employed as a Medical Officer in the Kashmir State for 10 years. "I can certify" Colonel BARR says "that Dr. M'CULLOCH is energetic, active and obliging, and that he is well suited to any medical appointment requiring a man with these qualifications."

Another testimonial is signed by Colonel NEVILLE CHAMBERLAIN, Military Secretary, Kashmir State, praising the good work done by Dr. M'CULLOCH in the autumn of 1891, in connection with the transport of troops and stores to Gilgit. "As regards your work at Astor after your arrival there" he says "in looking after a hospital full of men suffering from frost-bite and in acting as Transport Officer by forwarding stores to Gilgit, I believe the results were eminently creditable to you."

In connection with this service we learn from another testimonial signed by Captain W. R. YIELDING, Assistant Commissary-General, that Dr. M'CULLOCH obtained the thanks of Government.

"I am directed to state" Captain YIELDING says, "that the Government of India consider the reports valuable and interesting, and I am to request that their acknowledgement may be conveyed to Dr. M'CULLOCH."

All these are testimonials that any man might be proud of. Yet of what avail are they in a country like India?

And now a word on the subject of Delhi and its medical appointments. There are few if any Civil Surgeoncies in India where the appointments are so numerous.

We may enumerate the following :—Medical officer of the Civil Hospital,—The Lunatic Asylum,—The Central Jail,—Police Surgeon, The E. I. Railway,—The N.-W. Railway,—The S. P. Railway,—The R. M. Railway,—The D. N. Railway, all of which meet in Delhi. Ex. Officio Health Officer, the care of the officials of the E. J. Canals and of the W. J. canals,—the Schools,—the Cambridge Missonaries,—and finally the Mills and Factories over which a sphere of influence is exercised.

This gives some idea of the work the Civil Surgeon of Delhi is supposed to do. Of course it is utterly impossible for one man to properly perform even a portion of this work. The mantle of the Civil Surgeon spreads however and covers some of his subordinates.

In this way we find his House Surgeon, an Assistant Surgeon, in charge of one of the Mills and in addition running a private practice in the city. Another Assistant Surgeon is styled the Assistant Civil Surgeon, he is house Surgeon at the Police Lines Hospital and Civil Dispensary, he also has a private practice in the City.

While, what is worse, we have the post of Executive Health Officer occupied by a native who runs a chemist's shop, without even the qualification of a Hospital Assistant.

That the Civil Surgeon should acquiesce in these irregular practices and connive at some of his unqualified assistants conducting private practice on their own account, comes perilously near to what is generally known as "covering," and it is perfectly certain that such things could not be done in England.

We have gone into this case pretty fully as it is a fair representation of what the unofficial private practitioner has to encounter in India.

We trust our having drawn attention to it may do some good, and that Dr. M'CULLOCH may not be driven for want of funds, into closing an enterprise so beneficial to the poor of Delhi.

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THE EIGHTEENTH MEETING OF THE COUNCIL OF THE INDIAN MEDICAL ASSOCIATION.

In accordance with Notices issued by command of the President, the Eighteenth Meeting of the Council of the Indian Medical Association was held at its Office, 50, Park Street, Calcutta, on Monday, the 28th November 1898, at 6 P.M.

Present.—Dr. LAL MADHUB MOOKERJEE, Rai Bahadur, (President, in the Chair) Drs. H. W. JONES, RAKHAL DASS GHOSH and J. R. WALLACE.

Business.—(1). The Notice calling the Meeting having been read, the Minutes of the last Meeting of the Council, were read and confirmed.

(2). The Secretary presented the names of 11 new members who had applied for admission to the Association. They were duly elected.

(3). THE INDIAN MEDICAL ASSOCIATION PROVIDENT FUND.—The Secretary reported that three members of the Fund had died, and their nominees had sent in their claims for adjustment. *Resolved*, that the said claims be paid in accordance with the Rules of the Fund, to the extent of one rupee for every member of the Fund, as represented by fully paid subscriptions.

(4). THE NEW CALCUTTA MUNICIPAL BILL.—The Secretary laid upon the table letters from Government acknowledging the Council's representation on this subject, and intimating that its suggestions would be duly considered.

(5). MEDICAL, PROFESSORIAL AND HOSPITAL APPOINTMENTS IN INDIA.—The Secretary laid upon the table letters received from the Supreme and Provincial Governments in connection with the Council's representation on this subject. *Resolved*, that a copy of the Council's letter to Government be forwarded to the General Medical Council of Great Britain and to the Secretary of State for India.

(6). THE IMPORTATION OF DOCTORS AND NURSES FROM ENGLAND FOR PLAGUE DUTY IN INDIA.—The Secretary informed the Council that an important communication had been received from the Supreme Government concerning this matter. It was considered desirable that the said letter be published as follows :—

No. 1561. FROM A. H. L. FRASER, ESQ., C.S.I.,

Officiating Secretary to the Government of India.

TO THE SECRETARY, INDIAN MEDICAL ASSOCIATION.

Home Department (Medical)—Simla, the 4th Nov. 1898

SIR,

I am directed to acknowledge the receipt of your letter, dated the 12th October, submitting a copy of a Resolution passed at a meeting of the Council of the Indian Medical

Association, on the subject of the importation from England of doctors and nurses for plague duty in India.

2. In reply I am to say that the Governor-General in Council entirely agrees with the Council of the Association, that it is desirable to employ local doctors and nurses, and His Excellency in Council has been throughout very anxious to use local medical and nursing talent to the fullest extent to which they were available. Every effort has been made by the Government of India and Local Governments to secure the services of private medical practitioners and medical officers who have retired from the service of Government, but who are not disqualified physically or by reason of their age for further employment. Of 125 persons who were offered temporary employment on account of plague, 68 refused such employment or could not be found, the services of 41 were engaged by the Director-General of the Indian Medical Service, 10 were engaged by or referred to Local Governments, and only 6 were rejected as unsuitable. These figures do not include a number of doctors and nurses employed by Local Governments without reference to the Director-General of the Indian Medical Service. The list of applicants maintained by the Director-General of the Indian Medical Service, contains at present the names of only 2 suitable doctors and 1 nurse. These facts indicate that the Government of India have utilized as far as possible the available local talent, and have had recourse to England only because sufficient doctors and nurses cannot be procured in India.

3. I am to add that the claims of any local candidates whose antecedents and qualifications are satisfactory will continue to be favourably considered by the Government of India.

I have the honour to be,
Sir,
Your Most Obedient Servant,
A. H. L. Fraser, *Offg. Secy. to the Govt. of India.*

Resolved, that the Secretary do address the Government of India on the following points :—(*a*) information as to what means were employed by the Director-General, I.M.S. to obtain the services of qualified local medical men and nurses before application was made to London for English doctors and nurses, (*b*) whether the services of local doctors and nurses were sought for by means of advertisements in the medical and lay papers of the country, (*c*) whether the Director-General, I. M. S, would kindly provide the Council with a list of the local doctors who were offered work in connection with plague duties, (*d*) whether the Government will kindly state the qualifications required of candidates for plague duty with special reference to the question of the acceptance by Government of men holding Indian degrees and diplomas, (*e*) whether, having regard to the fact that the Council possesses a complete directory of qualified medical men, and is in touch with them through the *Indian Medical Record*, the organ of the Indian Medical Association, the Government of India will be pleased to make known its future requirements for medical men, and if so, the Council would gladly undertake the duty of forwarding the names of medical men whose qualifications the Government is prepared to accept, (*f*) that with regard to the employment of properly qualified local nurses, the Council would have much pleasure in co-operating with the Council of the Imperial Anglo-Indian Association, with a view to providing, for Government employment, the services of as many locally trained nurses as may be required for any emergency that arises.

(7). Independent Medical Colleges in India.—The Secretary raised a discussion on this subject. He referred to two Independent Medical Schools in Calcutta, one of which, though well equipped in many respects, was greatly handicapped in the matter of clinical instruction in meeting the requirements of its large lists of students. At present the students of the Calcutta Medical School were compelled to attend the Mayo Native Hospital, where, though the medical superintendent very kindly allowed them the fullest opportunities for clinical study which his hospital afforded, still none of his staff held the position of clinical teachers. Another difficulty exists in the fact that the Mayo Hospital is about 2 miles distant from the Calcutta Medical School. It is clearly realised that this institution, which is deservedly very popular, and which has received the countenance and patronage of three Lieutenant-Governors of Bengal, has not only justified its existence, but has a very rightful claim on the sympathy and support of the Bengal Government. That it is doing useful public work and meeting a long felt want, is proved by the success and largely utilised talent of its alumni, as also by its roll of students which now numbers 421. The School does not seek financial aid from Government, but it is now felt that with its acknowledged usefulness in its special field of operations, in providing the poor in rural districts in Bengal with fairly well trained medical attendants, the Council should approach Government on behalf of the school with a request that its students, provided they fulfil all the necessary requirements of the regular students of the Campbell Hospital Medical School in the matter of preliminary educational examination, attendance at lectures, dissections, chemical laboratory work etc., be permitted to attend the Sealdah Hospital wards with their teachers, who should be appointed honorary medical officers to the hospital. A certain number of patients in the wards should be allotted to each honorary teacher for the purpose of clinically instructing his students, provided that such attendance on the patients of the hospital by the medical and surgical teachers of the Calcutta Medical School, be done gratuitously and without any extra cost to the Government or the Hospital. That such a boon, while very materially assisting the efficient training of this class of students, would not only benefit them, but prove a blessing to the very necessitous portion of the native population among whom such medical men have ultimately to labor, inasmuch as they would thus be more intelligently and effectively trained and thoroughly qualified to treat medical and surgical diseases. It was considered desirable also in view of the fact that the other independent medical school referred to, is badly equipped, insufficiently officered and very poorly attended, it should amalgamate its resources with the Calcutta Medical School, so that by united effort, the local medical profession, represented in one section of its well educated and energetic Bengalee practitioners of Calcutta, might have an opportunity of opening a promising avenue for those of their number, whose aspirations and talents direct them into the field of medical teaching and medical research.

(8). A Technical School for Sanitary Science and a Degree in Public Health.—The Secretary raised a discussion on this subject, and suggested that the Bengal Government be asked to establish a school for training Sanitary Inspectors and for the purpose of preparing the

medical students of the Calcutta University and other local medical schools for a degree or diploma in Public Health, where practical hygiene and sanitary engineering would be, suitably taught. The Council approved of this valuable suggestion and instructed the Secretary to approach the Bengal Government on the subject by letter.

(9). Certain accounts and bills having been passed for payment, the meeting closed with a vote of thanks to the chair.

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THE SURGERY OF PELVIC INFLAMMATION.

Dr. Charles of Cullingworth, who opened the discussion on this subject at the B. M. A. meeting in Edinburgh, divided pelvic inflammation into two main divisions (1). When the primary and predominant lesion is in the connective tissue area of the pelvis (cellulitis). (2). When the primary lesion is intraperitoneal (pelvic peritonitis).

In the first case, when suppuration does not take place there is no indication for surgical interference.

When however pus forms it should be let out. The operation should always be performed without opening the peritoneal cavity, in the majority of cases the abscess points externally above Poupart's ligament, where the incision should be made.

Sometimes the suppuration occurs behind the posterior parietal layer of the pelvic peritoneum, the abscess is too deeply situated to point, and its existence is only a matter of inference, the indication for operation is not so clear and the operation is complicated. The incision should be as for tying the external iliac artery followed by careful dissection beneath the uplifted peritoneum.

Abscesses situated between the layers of the broad ligament at its upper part are very rare, if they ever exist. Cases described may have been cases of pyosalpinx or suppurating ovary in which the broad ligament has been drawn over the inflamed organs in the form of a hood concealing them from view.

The indications for operation are as a rule less clear in cases of pelvic peritonitis. Still it may be said that operative interference is necessary in the following circumstances, when after the subsidence of the acute symptoms in a case of pelvic peritonitis due to tubal inflammation, a bimanual examination reveals the presence of a swelling on the posterior fossa of the pelvis on one or both sides, which exceeds in size a simply thickened Fallopian tube or a slightly œdematous ovary, and if such a swelling is found to be increasing in size in spite of rest in bed and the local application of warmth, it is almost certain that pus is present.

Again, if during an attack of acute inflammation of the uterine appendages a tense, globular, cystic swelling be formed in the pouch of Douglas, bulging downwards into the vagina and backwards into the rectum, the probabilities are strong that the swelling is an intraperitoneal abscess. Even if the contents of the distended pouch prove to be serous and not purulent, the relief of tension is necessary, so that here again the need for surgical interference is imperative.

Thirdly the outbreak of recurrent attacks of pelvic peritonitis in a patient who has had an acute salpingitis and in whom there has remained a quiescent but obvious swelling on the posterior part of the pelvis. Such attacks are very suggestive of a collection of pus and the need for operation.

Finally operation becomes urgent when there are symptoms of general septic infection with history of pelvic inflammation and the presence of a localised swelling above the vaginal roof. Such cases frequently prove to be what is termed tubo-ovarian abscess, that is to say where a communication has been opened by ulceration between a suppurating Fallopian tube and a cyst in the adjacent and adherent ovary.

Non-suppurative pelvic inflammation tends to get well without operation, there are exceptions however where operative measures are called for, as in cystic disease of the ovary and hydrosalpinx.

Again other circumstances may justify an operation as when the woman belongs to the working class, and is willing to take the risk in order to be cured quickly.

Regarding the choice of time for the operation it should if possible not be undertaken in the acute stage but as soon after as possible.

M. Doyen (Paris). Periuterine collections of pus have their seat (1) in the subperitoneal connective tissue (iliac abscess), (2) in the peritoneal cavity itself (ovaritis, salpingitis, and peritoneal suppurating cysts).

Purulent collections low down in the broad ligament may be opened by a lateral colpotomy by plunging into the inflamed ligament a long forceps, and emptying the abscesses that lie low down close to the uterine artery.

Suppuration of the annexa develops mostly in the tubes themselves, there are three methods of operating (1) Simple incision of the purulent pouch by posterior colpotomy (2) vaginal castration ; (3) laparotomy.

Any exclusive method should be rejected. Laparotomy should not be used when the septic focus can be reached by vaginal incision, and vaginal hysterectomy is contra-indicted when the purulent pouch reaches above the brim

Rules for Choice of Operation.

Extra peritoneal suppuration —(*a*) Abscess of broad ligament,—(1) By classical iliac incision. (*b*) Abscess of the inferior portion of the broad ligament ; lateral colpotomy.

Intraperitoneal Suppuration.

(*a*) The inflammatory mass remains intrapelvic, and does not reach above the brim : vaginal operation. (*b*) The suppurating tumours pass the brim of the pelvis, and reach the level of the umbilicus : laparotomy.

By each one of the above methods, vaginal or abdominal, three distinct operations may be performed : (1) Simple incision of the purulent focus ; (2) ablation of the annexa, leaving the uterus ; (3) total castration.

Concerning the vaginal method, in young women in whom castration would be an unnecessary mutilation, I content myself with free incision and tamponing the cavity ; such cases can subsequently bear children.

If the annexa on one side are recognised to be diseased they are removed by colpotomy, the annexa on the other side and the uterus being left intact, if both sides are diseased (which can only be discovered during the operation) both are removed with the uterus.

Regarding laparotomy, certain encysted purulent collections limited by peritoneal adhesions can be cured by simple incision.

When pus is contained in the tubes they must be completely extirpated.

Total Abdominal Castration. Is it rational to practice ablation of the uterus in every case of bilateral suppuration of the annexa? Assuredly not. When the uterus is healthy and not painful, and when its ablation in women much reduced in strength, may lead to an aggravation of their state it should be left. Its ablation is also useless in tuberculous salpingitis, when it is healthy.

The vaginal method and laparotomy are not competing methods. Each has its own indications. M. JACOBS (Brussels) who has operated on 713 women for pelvic suppuration, considers that the vaginal method should be selected in old standing cases of pelvic suppuration with fistula, adhesions and peri-uterine abscess.

The abdominal route is the best in relatively recent cases in which there is no evidence that surrounding organs are seriously involved, following this rule M. JACOBS has had only 8 deaths out of 432 vaginal cœliotomies and 3 deaths out of 98 laparotomies. M. LANDAU (Berlin) said that he had performed 58 vaginal cœliotomies in the course of three and a half years without losing a single case. Those patients who were operated on by vaginal cœliotomy for true,—not inflammatory,—tumours and for extra-uterine pregnancy were permanently cured. In patients with inflammatory conditions only 20 per cent. at best were cured.

M. MARTIN (Berlin) said, I lay great stress upon the history for much depends on whether there is a history of gonorrhœa or not. In gonorrhœal cases an expectant treatment will often answer quite well, but in septic cases operation is almost always necessary, and is often required in the acute stage when high fever is present.

He remarked that the bacillus coli was a frequent cause of pelvic inflammation especially in quite young women which had not attracted sufficient attention. The first condition may be constipation, menstruation comes on, and marks the beginning of the pelvic trouble, within a few years definite swellings are found, then if operation be done, it is found that there are adhesions between the tubes and the intestines."

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CAPTAIN THOMSON, I M S. ON THE CALCUTTA PLAGUE.

WE have from the first openly expressed and maintained the opinion that the disease officially called plague in Calcutta was not true plague, and we were inclined to think that the course of events amply justified this view. We have from time to time set forth our ideas on the subject and we have given various reasons for our convictions.

Our readers are well acquainted with them, so that there is no reason to rehearse them again in this place, suffice it to say that they are unaltered and that far from seeing any reason to modify them, we hold them to be more justified than ever.

These remarks are called forth by a letter from Captain G. S. THOMSON, I M.S., Civil Surgeon of Satara, which appears in our correspondence columns.

It is no doubt a difficult thing to diagnose plague in Calcutta from such a distance, so that Captain THOMSON clearly labours under a great disadvantage, it is after all only natural that he should feel inclined to credit and support the official accounts, nor do we quarrel with him because his ideas happen to be opposed to ours.

Far from it, we only wish that he had something of a more convincing nature to communicate, and that he was able to clothe his ideas in language a little more lucid and a little freer from grammatical blunders.

We expect something better in these respects from the officers of a service, which is so fond of boasting of its superiority.

Captain THOMSON does us an injustice when he says that our opinion of the so-called plague was based "on the false, self-laid down, criteria, that it has become neither contagious or (sic) epidemic." The evidence brought forwards by us and upon which our opinion was founded, was by no means confined to these phenomena.

"Two facts" he then says "will, I feel sure correct your misunderstanding and enlighten your ignorance."

Where these two facts are we leave our readers to discover, for we have failed in our search, for after a long quotation above the name of MILROY he passes on to what he calls a "confirmatory fact," confirmatory that is of the other two and therefore a third fact.

This third fact is unfortunately also missing, but we are invited to seek it in "The Transactions of the Bombay Medical and Physical Society for March" where Captain THOMSON tells us "I elucidated and enunciated 'The want of Fresh Air Theory,' of plague."

We are sorry that we are not acquainted with Captain THOMSON'S "Want of Fresh Air Theory" of plague, and that time prevents us exploring it for this buried fact.

His facts are therefore illusory and leave us but little better off than we were before.

Does it occur to him, when backing up certain individuals, that official reports are scarcely to be taken as expressions of personal opinion? It is not surprising to find subordinates colouring their views to harmonise with the prevailing Secretariat tint.

Again we may remark that the remarkable abstention from bacteriological research in the Calcutta disease was not without its special significance for us.

Captain THOMSON has a curious idea of pleasure, or possibly of the meaning of the word "unique" when he tells us that he "had the unique pleasure of acting as plague preceptor to Drs. BANNERMAN and DYSON." We hope they appreciate the compliment. He has, however, a very shady idea of the duties of the Sanitary Commissioner of Bengal, if he thinks, he spent his time going about diagnosing plague cases.

Captain THOMSON accounts for the so-called plague not spreading in Calcutta in the following way: "The Disease" (plague) he says, "is conditioned and is only infectious when there is want-of-fresh (sic) air; (sic) due to deficiency of it, (!!We wonder to what else it could be due) filth or over-crowding."

To those who know Calcutta this will be strange reading. Distance certainly lends enchantment to the view, but that even from the distance of Satara, Calcutta should be held up as a sort of Sanitary paradise, where plague could not spread because there was no over-crowding and no filth, is almost incredible. Yet such is Captain THOMSON'S view! Surely the Municipality has smelt a sweet smell (an unwonted luxury for it) of incense offered from afar.

Captain THOMSON has evidently a very erroneous idea of the size of Calcutta, when he says that "about half the people ran away from the city." We wonder what figures he relies upon, but he is altogether too illogically funny, when he ascribes their running away to the fact that they believed plague was due to fate. "They had" he says, "to bolt into the jungles and elsewhere."

The people who ran away, did so, not from fear of the plague, but from fear of the *plague regulations*. The fact of their believing that plague was due to fate, as Captain THOMSON puts it, was the very thing to keep them at home.

Captain THOMSON'S theory about plague apparently is that it is only infectious when there is a want of fresh air. We wonder how he explains the recent cases that occurred in Vienna on this theory.

The Vienna doctor who attended the first case undoubtedly caught it from his patient, the nurse's case was an equally well-marked one of infection. Yet they all occurred in a well-appointed Vienna hospital.

We will conclude with two of Captain THOMSON'S choice specimens of English, which we think, might very well be set for correction in a Calcutta University paper, "faithfully clinical type of disease," "its absolutely non-contagiousness."

FOURTH ANNUAL MEETING OF THE INDIAN MEDICAL ASSOCIATION.

The Fourth Annual Meeting of the Indian Medical Association will be held at the Office and Library of the Association, 50 Park Street, Calcutta, on Friday, 23rd December 1898, at 5 p.m. All members of the Association, and all other qualified medical men and women are cordially invited to attend.

JAMES R. WALLACE, M.D., F.R.C.S.,
Secretary, Indian Medical Association.

PUBLIC NOTICE.

INJUSTICE IN BENGAL.

1. WANTED.—Fair Trade in Medical Journalism. The Bengal Government subsidizes and supports a private medical journal, and thus misuses public money. Public protest has failed to stop this injustice. The *Indian Medical Record* has flourished for nine years without State support and has won the confidence of the medical profession. The other paper has struggled on for 25 years with the aid of public funds. Comparison of subscription lists will prove these facts. The Bengal Government is guilty of injustice in this matter, and it is hereby declared, that this NOTICE will continue to appear in this form and in this position until the Lieutenant-Governor of Bengal, puts an end to this disgraceful and iniquitous system of State subsidy to the paper complained of, which is owned by a private trading firm.

2. WANTED.—For the Medical College of Bengal in Calcutta, a fully qualified Surgeon and Teacher of Surgery, to occupy the position of Surgeon to the Calcutta Medical College Hospital and Professor of Surgery to the Calcutta Medical College. The aspirant should be a tried and experienced practical surgeon, well versed in all the lore of ancient and modern surgery, and be thoroughly capable of teaching a large class of students (who pay the Indian Government for their education) the following subjects:—General Science of Surgery, Surgical Anatomy, Surgical Pathology, Practical and Operative Surgery, and Clinical Surgery.

NOTE.—Certain candidates of the Indian Medical Service, even though they be unqualified, will be favourably received by the Chief Secretary to the Government of Bengal, but it is specially notified that all other applicants outside the service of Her Majesty's Government in Bengal or in India, must be fully qualified.

This NOTICE will stand unchanged until the Bengal Government removes the present incumbent of the chair of Professor of Surgery (Mr. R. D. Murray, M.B., who studied *modern* surgery in 1873, vide *Englishman*) and until justice is done by providing the students of the Calcutta Medical College with a proper Teacher of Surgery.

COMMENTS AND NEWS.

MEETING OF THE STRAITS SETTLEMENTS BRANCH OF THE INDIAN MEDICAL ASSOCIATION.

The annual meeting of the Straits Settlements Branch, I M A was held on 17th August 1898, at the residence of Dr W R Angus

The members present were Messrs. A B Leicester, (Chairman), W R. Angus (Member of Committee for Singapore) I A Reardon, H J Gibbs, (Honorary Secretary), J V Pestana

The Chairman in opening the meeting said 'It is my pleasing duty to open to night the third session of our association We have not been able yet to accomplish those aims to which reference was made in my address last year, and as I then said in dealing with matters affecting our personal condition we must exercis great discretion and bide our time

It is very gratifying to note the interest taken by members in contributing notes on subjects interesting to the profession and particularly so to note the revival of spirit among, and the energy and interest shewn by our Penang colleagues in this direction, as well as in another, that is, discussion of professional subjects I hope to see Malacca following in their wake so that our combined efforts may in a greater degree merit the already obtained reputation for excellence in our Annual Reports from our parent association

I would now call upon our worthy Honorary Secretary to read the report of the past session"

The Honorary Secretary then rose and addressed the meeting as follows —

"Mr Chairman and Gentlemen,

It affords me much pleasure on a second occasion to have to record another year of useful work on the part of the members of the Straits Settlements Branch of the Indian Medical Association and it is especially gratifying to see how ably Penang has come to the front in the interest manifested in the discussion of professional subjects Malacca, much to my regret, however, still remains true to its tradition of being the "Sleepy Hollow."

Some of our members have, I think, just cause for complaint against the parent association in that though they have paid their subscriptions they are not furnished with the promised membership certificates One member refuses to pay a single cent further towards the association if his certificate is not forthcoming very shortly, and I must say that I quite support him in his action I have written on more than one occasion to the Indian Secretary on the matter, but so far my efforts have been fruitless to procure the necessary certificates Eight Meetings have been held in Singapore and fifteen in Penang. The average attendance in Singapore was five, while in Penang it is stated to have been good"

The adoption of the discussion of professional subjects in addition to the reading of papers and notes has, I think, had a very good effect One of the Penang members wrote to me stating that their weekly meetings were doing their members a great deal of good, and suggested that I should write to the Secretary at Calcutta and suggest to him that the Indian members do likewise I must here congratulate Messrs J W W Hogan and J F Carnegy on passing their professional examination for promotion from the lb 150 to the lb 175 grade

Two members Messrs D'Vaz and Bateman were admitted, and Mr. Reardon, who had returned from leave, was readmitted during the year

I regret to have to report the loss of 2 members to the Association, one Mr. Gawthorne by death, the other Mr. M. W Laporte by resignation, Mr. Laporte's resignation is greatly to be regretted, but as he attributed it to purely private grounds there was no help for it

At the last annual meeting I likened the condition of this branch to the fretful stage of a teething infant, but now I am happy to be able to state that the infant branch is not only sturdy in its growth, but that it has cut all its temporary teeth.

The correspondence of the year chiefly consisted in the forwardings of the minutes of the meetings to the Indian Secretary for publication in the *Indian Medical Record*, the conveying of a vote of sympathy to the widow of the late Mr. Gawthorne and in two letters of your Secretary to a private practitioner taking him to task for an unjustifiable attack on a member of our Association which had the affect of casting a slur on the whole of us, and to a member of the British Medical Association who took the part of our members against the aforesaid private practitioner

At our first meeting of the session under review held on the 13th November 1897, the chairman, Mr A B Leicester, read his inaugural address which included some remarks on general diagnosis On Mr Pestana's suggestion it was resolved that the subscription of members be raised from fifty cents to one dollar a month and that with the increased subscription so obtained, a copy of the *Lancet* be taken in for the benefit of the Singapore members This has been done, and, to the undoubted benefit of those who read the paper

Mr. Gibbs showed specimens of hæmin crystals and the method of preparing them

Mr C J Bateman who had lately qualified as an assistant surgeon was admitted a member of the local branch

On 13th December 1897, Penang notified that its members would hold weekly meetings to discuss professional subjects, and, on the 17th December the Indian Secretary forwarded several printed copies of our last Annual Report which had previously appeared in the *Indian Medical Record*, and which he was pleased to term "excellent" for circulation amongst the Straits members

At the monthly meeting held on 17th December, Mr. Laporte's letter of resignation was considered and the Secretary was instructed to write to Mr Laporte and ask him to reconsider his resignation, and in the event of his declining to do so to kindly state the reasons for his taking such an extreme step It was also resolved on the chairman's suggestion that every member of this Branch should provide himself with a fortnightly copy of the *Indian Medical Record* so as to support the parent association as well as show his loyalty towards it

The following subjects were discussed Dysentery, Abortion and Dislocations of the hip

On the 24th December 1897 Mr. Laporte in reply to the Secretary, wrote declining to reconsider his resignation, and further stated that as his reasons for resigning the association were purely of a private nature, he considered the members had no right to ask to be informed of them He also stated that he had severed his connection with the parent association

At the meeting held on 15th February 1898, Mr. Reardon attended as a visitor, and Mr. Carnegy's query as to whether it was necessary for him to forward minutes of the meeting of the Penang members through the local Secretary for publication in the *Indian Medical Record*, was decided in the affirmative.

The Secretary was instructed to write for a copy of the Indian Medical Directory. Pleurisy, Post-partum hæmorrhage and Fractures of the upper extremity were discussed,

On 16th March 1898, Mr. ABRIA read his paper on the mal-praxis of native midwives in Singapore and the following subjects were discussed. Pregnancy and the diseases connected with it and the eruptive fevers. It was also resolved that Penang be asked to exchange its "Practitioner" with Singapore's *Lancet* after their respective members had done with these papers; and that the Malacca members be asked to contribute fifty cents each monthly towards defraying the cost of the *Lancet*. Malacca has failed to see the force of this argument.

On the 19th April 1898, Penang notified its willingness to exchange the above journals. Singapore has forwarded its *Lancet* but Penang's "Practitioner" has not been forthcoming. The following subjects were discussed, plague and cholera, normal labour, the puerperal state and its management and dislocations of the shoulder.

At the meeting held on 27th May 1898 Mr. RYLANDS of the Lahore medical service attended as a visitor; and Mr. REARDON'S proposal that the meetings be held of an afternoon and once a week instead of at nights and monthly was negatived by the majority of the members present. Mr. GIBBS read his paper on "The microscope as an aid to diagnosis, the staining of bacteria and the preparation of nutritive media."

On the 4th June 1898 at the meeting of the Malaya Branch of the British Medical Association at which your Secretary was the guest of one of its members, a member of the above association tried, unjustly, to belittle the members of our association in the eyes of his colleagues and of the naval medical officers of H. M. S. "Hermione." This attack upon us was promptly resented by two other members of the British Medical Association, who ably supported us, and by your committee who, after fully investigating the matter, permitted your Secretary to write a letter to the offending member which utterly refuted his charge; and I have since heard, privately, that the member referred to extremely regrets his unwarranted attack upon us.

It is very pleasing to have to record the celebration of the silver wedding of our worthy Chairman Mr. A B. LEICESTER on the 9th July 1898; on which occasion his colleagues presented him with a handsome silver tea service.

At the meeting held on 18th July 1898, phthisis, pneumonia, the urine in health and in disease and funis presentations were discussed and the date for the Annual meeting was fixed for the 17th August, 1898.

The professional subjects discussed by Penang during the year cover a fairly wide field, and shows the great interest Penang is now taking in the professional advancement of its members.

In conclusion I beg to express my thanks to one and all of you, and especially so to the chairman and the members of committee, for the kind consideration shown and the fullest confidence placed in me. Without this confidence I would have found it exceedingly difficult to have carried on the work of the Association to the satisfaction of its members. You will be presently asked to elect officers for the carrying on the work of our Association for the ensuing year, as to the selection of a Secretary, who of necessity, has to bear the brunt of the work, I would recommend the following words of the late Cardinal MANNING for your consideration. "To live is to change, and, to change often the nearest approach to perfection."

On the completion of the reading of the above report the members bearing office tendered their resignations, and the members were asked to vote for the election of officers for the ensuing year.

For the Chairmanship.—Mr. A. B. LEICESTER received 11 votes, Mr. W. R ANGUS received 2 votes, Mr. LEICESTER was thereupon elected Chairman.

For the Secretary.—M. J. A. REARDON received 2 votes, M. H. F. GIBBS received 10 votes, Mr. A. HALE received 1 vote, Mr. GIBBS was elected Honorary Secretary.

For the member of Singapore Committee,—Mr. W. R. ANGUS received 5 votes, Mr. J. A REARDON received 5 votes, as these members "tied" a re-ballot was asked for with the result that Mr. W. R. ANGUS received 2 votes, Mr. J. A. REARDON received 1 vote, Mr. ANGUS was therefore elected.

For the member of Penang Committee,—Mr. M E. SIRWAN received 3 votes, Mr. C. V. NORRIS received 1 vote, M. J. F. CARNEGY received 9 votes, Mr CARNEGY was elected.

For the member of Malacca Committee.—Mr WRAY received 9 votes, Mr. G. M. RUPPA received 2 votes, Mr. WRAY was elected, neither Province Wellesly nor Malacca voted

THE CAUSE OF AND SUSCEPTIBILITY TO DISEASE.

AT the meeting of German Naturalists and Physicians at Dusseldorf, September 19th to 24th, 1898, HERR MARTINS ROSTOCK discussing the above subject said that in reference to disease the causes assigned were usually wanting in logical definiteness. It was of the nature of a cause that it should always be followed by a certain effect. Bacteriology claimed to do away with the old uncertain connection between cause and effect. According to the new teaching every individual of a susceptible species fell ill with unfailing certainty every time that there was a previous infection with the particular pathogenic micro-organism. According to bacteriology microbes were the direct and only causes of diseases, it was of the nature of a necessity that they should produce diseases.

"These facts have been derived from experiments on animals, and the unprecedented importance attached to them, was due to their too hasty application to human pathology."

"If they are correct, every *natural* infection with a specific cause of disease in man, should be followed by the typical sickness."

"It has caused no little perplexity, that this conclusion so apparently self-evident on the ground of etiology has proved to be false."

RUMPF states that in 60 cases that he examined after the Hamburg Cholera epidemic of 1892-93, he found the cholera bacillus no fewer than 19 times in persons whose health was either not affected at all, or only very slightly. In six cases which were a longer time under observation, the cholera bacillus was found when the motions were perfectly solid and the persons in perfect health.

"That the results were due to errors of observation is improbable, for we meet the same conditions with regard to Diphtheria and even Tubercle."

"The more frequently and the more carefully researches are made, the oftener it is shown that healthy men harbour without ill effects, micro-organisms, which experiments on animals have shown to be virulent and specific."

"What positions are we to take up with respect to these facts? Shall we let them shake our faith in the etiological connection of the comma bacillus with cholera, of LOEFFLER'S bacillus with diphtheria, of the tubercle bacillus with phthisis. Seriously such a thing is out of the question."

"The error lies in the interpretation put upon the facts."

"That the pathogenic connection between man and the disease excitant, depends entirely upon the nature of the latter, while the man is merely an indifferent culture medium, is nothing less than a purely arbitrary hypothesis that bacteriology itself has made."

"When therefore objections, founded upon observed facts, are made to this young and powerful science, the fault is entirely its own."

"With the facts alone we have to deal. First of all it is clear that *infection and disease are not synonymous terms.*"

'We may freely grant that *infectious disease cannot arise without infection*, but not the reverse proposition."

"*Every infection is not followed by disease*, according to the popular saying, things that are injurious to one are not injurious to another."

"Were it true that the tubercle bacillus set up tuberculosis in every individual to whom it gained access, it would be indeed bad for the human race."

"But there is another condition necessary for the occurrence of disease as a consequence of infection, namely *that the infected individual should be susceptible to the disease.* Only the entire neglect of this condition could possibly have led to the one sided notion of the term "pathogenic" which has so frequently led us astray."

"It is altogether wrong to talk unreservedly of pathogenic bacteria, the circumstances of the case must always be borne in mind."

"The same may be said of the much vaunted term "specific." The failure of orthodox bacteriology consists in this, that it looked for the accident which caused the disease solely in the special nature of the living excitant, while in many cases the reverse is true, that the specificity of the attack lies in the reaction of the living tissue to the exciting cause."

From this standpoint the author investigated the question of susceptibility (predisposition), he agreed with GOTTSTEIN in giving it a variable value, according to the varying relations which the constitutional strength of man may bear to the energy of a special disease excitant.

This idea, which explains the causal connection between susceptibility to disease and the exciting cause of disease in infectious diseases, is not only limited to the latter, but represents a general principle which dominates the pathogenesis of internal diseases.

INSTRUCTION IN TROPICAL DISEASES.

THE *British Medical Journal* publishes the following circular letter, signed by the Permanent Under-Secretary of the Colonial Office and addressed to the medical schools:

Downing Street, 19th November, 1898.

SIR,—In the 5th paragraph of the letter from this Department of the 11th of March last, it was stated that Mr. Secretary CHAMBERLAIN, with a view to supplementing the instruction afforded by the medical schools, was endeavouring to make arrangements for giving to Colonial medical officers special clinical instruction in tropical medicine, such as is given at Netley and Haslar in the case of medical officers of the Army, Navy, and Indian Medical Services, and which, from lack of the necessary material, cannot invariably be given at the medical schools.

2. These arrangements have now been made. The directors of the Seamen's Hospital at the Albert Docks, which offers exceptional opportunities for studying cases of tropical disease, are providing the necessary buildings and teachers for the accommodation and instruction of the medical officers who may hereafter be selected by the Foreign Office and the Colonial Office for appointments in the tropics A substantial contribution towards the initial cost of the buildings is being made by the Government, and it is hoped that by the 1st of October, 1899, it will be possible to receive medical officers at the hospital for purposes of instruction.

3. It is proposed that, as is at present the case, candidates for medical appointments in the British Colonial Possessions shall be fully qualified before they can be put upon the Secretary of State's list, that from this list a certain number shall be selected annually to fill the vacancies which may occur in the Colonial Medical Service, that the selected candidates shall be trained for a period of at least two months at the Seamen's Hospital, and that they shall then be sent to the Colonies or Protectorates to which they have been allotted, where, when practicable, they will be attached, in the first instance, to the headquarters hospital for the purpose of gaining additional experience. In estimating the respective merits of candidates on the Secretary of State's list, regard will be had to the fact whether or not they have already received instruction in tropical medicine.

4. Judging from the replies which have been received from the General Medical Council and the medical schools Mr. CHAMBERLAIN believes that the above arrangements will prove acceptable.

5. Although the school at the Seamen's Hospital is designed for the training of medical officers for the Government Service, doubtless there will be many other medical men, such as the medical officers of missionary societies and trading corporations, and private practitioners who propose to settle in tropical countries, who will be glad to avail themselves of the advantages which such a school can offer.

6. The Colonies are being asked to make pecuniary contributions, to collect pathological material for use in the school, and to support the scheme in every possible way. So far, then, as this Department is concerned, no effort is being spared to make the school a success, and Mr. CHAMBERLAIN feels confident that the medical schools of this country will also do what is in their power to assist the development of an institution which is likely to be of general service, and to benefit medical science not only by giving a stimulus to the investigation of tropical disease, but also by qualifying a body of men to become investigators.

7. Mr. CHAMBERLAIN is so impressed with the importance of this subject as affecting the administration and well-being of the tropical Colonies that, in addition to this scheme for providing a thoroughly efficient Colonial Medical Staff, he wishes to encourage by every means in his power scientific inquiry into the causes of tropical diseases. Accordingly he has already, after correspondence with the Royal Society, instituted a Commission to study the subject of tropical malaria on the following lines:

8. The Royal Society has nominated two competent observers, who have already proceeded to Italy for a short preliminary study, and will afterwards go to some place in Africa probably, in the first instance, to Blantyre, in the British Central Africa Protectorate, where it has been ascertained that there exist good opportunities for carrying out the purpose in view.

9. In addition the Secretary of State has nominated an experienced medical officer of the Colonial Service to aid in the investigation. This officer will, in the first place, proceed to India in order to study under Surgeon-Major RONALD ROSS for about two months, so as to make himself acquainted with the result of that gentleman's researches. He will then join the other two observers in Africa, where they will together pursue their studies, which will probably occupy about two years, and report from time to time to a Committee in England, nominated jointly by the Royal Society and the Secretary of State.

10. Mr CHAMBERLAIN has been glad to learn from the replies which have been sent to the letter referred to above that arrangements already exist, or are about to be made for giving special instruction in tropical medicine in upwards of twelve British medical schools, and he trusts that these schools, some of which (such as that of University College, Liverpool, University College, Bristol, and the University of Durham College of Medicine at Newcastle-on-Tyne), being

situated in large seaports, possess exceptional facilities for study of tropical disease, will keep in correspondence with the School of Tropical Medicine at the Seamen's Hospital, with a view to mutual assistance and advice.

11. In conclusion, Mr. CHAMBERLAIN desires to express his thanks to the General Medical Council and the British Medical Schools for the warm interest which they have taken in this matter, and for the ready and cordial support which they have afforded him. He will welcome any suggestions which may be made in furtherance of the object in view.

I am, Sir, your obedient servant,

EDWARD WINGFIELD.

UNIVERSITY WORK IN RELATION TO MEDICINE.

PARTICULARLY applicable to recent events in the University of Calcutta are some words uttered by Dr. MICHAEL FOSTER in the course of a delightful address on the above subject, delivered at the opening of Mason University College, Birmingham.

Discussing the education of the medical student in Physics and Chemistry, Dr. FOSTER argues that it would be less of a burden to the student to be taught to *understand* these sciences, to think in them as he expresses it, than to merely *know* them or be examined with a certain number of facts, but this only on the two following conditions.

"The first condition is that the authorities to whom is entrusted the appointment of the teacher, professor, call him what you will, of each of these sciences, should, in the selection of the holder and in the award of the emoluments of the chair, recognise, and that the teacher himself should recognise, that the office is one not of teaching only, not of didactic exposition only, but of learning, of inquiry and research. I know very well that the gift, of investigation and the gift of facile exposition do not always, possibly do not often, go hand in hand. But the power of thinking in a science on which I have been dwelling is not taken in as drops falling softly from the lips of the teacher into the open mouths of the passively recipient hearer; it has to be gained by the exertions of the learner, and largely by active work in the laboratory. And I never heard of anyone having in him the true spirit of inquiry who in the quiet studies of the laboratory failed to carry his pupils with him onward from truth to truth, however sorry a figure he might cut when he attemped in a formal manner to thump the professorial pulpit. On the other hand, if the spirit of inquiry be lacking, an exposition clear as crystal, aided by elaborate diagrams or a projection lantern, while it seems to be wholly luminous, may leave the mind of the hearer really dark The art of teaching in the true sense of the word is not the art of pouring into empty vessels; it is the art of awakening latent powers, the art of nursing that feeble infant, the desire to know, until, growing strong in limb, it is able to walk alone and go on its own way. The only teacher who can truly teach is one who is himself bent on going forward, to whom each bit of new knowledge which comes before him is not something to be stuck in its proper place in the catalogue of things known, but a stepping-stone from which to make a new stride."

EXAMINATIONS.

"The second condition is that the tests, trials, examinations, call them what you will, by which the progress of the student is measured, should be directed to appraising his intellectual growth, not his accumulated knowledge, to determining how far he has got on the road, not the amount of luggage he has gathered on the way."

We commend the above and indeed for the matter of that the whole of Dr. FOSTER'S able, lucid, and original address to all thinking people, and more especially to those who are in any way connected with and responsible for the education of our youths.

Equally applicable is the following remark from the same source, which strikes straight at the abuses in our Indian Universities, where unfortunately the chief professional appointments are most commonly sought for the large and lucrative practice to which they lead.

"By all means, as I have already urged, let teaching and learning stand side by side; bid the teacher investigate and the investigator teach; but let the teaching be so ordered and so rewarded that the teacher has ample time and repose for his research, and, content with his hire, is placed beyond the temptation of giving up to the search for gold, the time and energy which ought to be spent in the pursuit of truth."

A SPEEDY WAY OF DILATING A RIGID OS IN PARTURITION

DR. J. FARRAR (Gainsborough) read a paper before the British Medical Association on the above.

The method consists in the application of a ten per cent. solution of cocaine to the os

The efficacy of cocaine was discovered by accident in the following case. Dr. FARRAR says.

"I had been in attendance on a primipara on and off for some forty-eight hours. The os was thin, rigid, and obstinately unyielding; frequent attempts at stretching it, first with the finger then with a mechanical dilator, both with and without chloroform, and afterwards with indiarubber bags, had all proved futile; as had also the internal exhibition of approved medicaments, chloral hydrate, bromide of potassium, morphine, etc. In spite of these attempts, however, the os still remained firm, its margin feeling almost like a circle of sheet tin, and its orifice not larger than a shilling. The pains were very strong, frequent, and almost persistent, and the patient—who was, I should add, a deaf-mute—was losing self-control. The case was therefore becoming serious and as it was necessary that relief should be given without further waiting, I determined to incise the margin of the os. The woman being, as I have said, a deaf-mute, and exceedingly frightened and despondent at the condition of matters, I could not on the one hand, as in ordinary cases, talk and reason with her, and tell her what I proposed to do; and, on the other hand, I scarcely thought it prudent to further alarm her by the pain she would feel on the incisions being made, as this would probably make her quite unmanageable; and as, further, the administration of chloroform was contraindicated owing to symptoms of approaching exhaustion, I had only local anæsthesia left to me. The anæsthetic I chose was cocaine. With a 10 per cent solution of the hydrochloride on a piece of rag I smeared the os round and round, first on the outside and then within, finally leaving the rag between the margin and the head of the child. At the end of four minutes, by which time I considered anæsthesia would be sufficiently advanced for my purpose, judge of my astonishment—and, I may say, my gratification—when on introducing the scissors to make my limited incisions, I found the os had not only lost its rigidity, but that it was widely open, and as flexible and distensible as a rubber bag."

Dr. FARRAR had equally good results in four other cases, he strongly recommends this simple mode of procedure.

UNCLASSIFIED FEVERS OF THE TROPICS.

THE following is the classification of Tropical Fevers recently suggested by Lieutenant-Colonel A. CROMBIE, I.M.S., to the British Medical Association.

A PROVISIONAL SCHEME SHOWING THE PROBABLE POSITION OF THE UNCLASSIFIED FEVERS IN INDIA.

I Non-specific fevers of doubtful causation, probably climatic

a Ephemeral fever.

**b*. Common continued fever.

1 Febricula. *Variety*: Nakra or nasha fever.

2. Simple continued fever.

**3*. Ardent fever.

**c*. Thermic fever, siriasis, heat apoplexy.

**d*. "Low fever"

II. Specific fevers of known or unknown origin:

1. Aphthous fever.

2. "Milk sickness"

**3*. Urban continued fever.

4 Enteric fever.

**5*. Non malarial remittent fever.

6. Malta fever.

**7* Double continued fever (Manson).

8 Relapsing fever.

**9* Acute febrile icterus

10 Yellow fever.

11. Beri-beri

12. Cerebro-spinal fever.

13. Typhus fever.

III. Malarial fevers.

1. Intermittent { Quotidian. Tertian Quartan

2. Remitent or continued malarial fever (Laveran).

IV. Fevers of compound origin:

**1* Typho-malarial fever.

**2*. Kala-azar.

**3* Hæmoglobinuric fever (?)

"I have marked" he says "with an asterisk the clinical types which I would include under the heading of "Unclassified Fevers of the Tropics"

PLAGUE IN RUSSIAN TURKESTAN

THE fact that an epidemic of some unknown disease was raging in a village in the district of Iskender-kul, was first made known by a report from the Governor of Samarcand, dated October last.

Since then the disease has been identified as plague. The medical officer of Pendjikend who investigated the subject, reports, that a woman having died after a few days' illness in the village of Marzin, a native of Anzob a village some miles distant washed and buried the body, and then returned to Anzob where almost immediately she took sick and died after three days

Next some of this woman's relatives and some of the people who had assisted at her burial took ill and died; then some of the inhabitants of the village became affected. The unusual mortality caused some excitement in the village and some one gave the unfortunate advice that the body of the dead woman should be exhumed as she had not been buried according to the precepts of Cheriat. This was done, but after it the epidemic spread with such rapidity that the matter was reported to the government.

Immediate measures were taken, Anzob was isolated and all the roads leading to it guarded, the clothes and bedding of the dead were burnt, the village was cleansed and disinfected and the sick isolated.

A cordon was placed round Anzob, and so far none of the surrounding villages have been attacked.

TRANSPORT FOR THE SICK AND WOUNDED.

WE have received a copy of a long communication from Brigade Surgeon Lieutenant-Colonel R. TEMPLE WRIGHT, I. M. S., addressed to "The President, Transport Committee, Simla, dated Ootacamund, Nilgiris, 1st September, 1898."

Lieutenant-Colonel TEMPLE WRIGHT is the inventor of the "Milver Ambulance Cart" which we learn was "awarded a medal at the Calcutta Exhibition of 1883."

For the "Milver spring stretcher," which we presume is intended for use with the "Milver Ambulance Cart" the inventor makes the following claims —"My stretcher is equally comfortable to the patient whether used in a common cart, a railway carriage, or on boardship, but I must own that at present it has been used only on deck, for the Captain of the steamer on which it was tried said he had no cabin large enough for it."

As the communication does not contain a detailed description of either the Ambulance Cart or the Spring Stretcher we are unable to discuss their merits

We learn, however, that full particulars, with models and photographs, been forwarded to the President of the Transport Committee We wish Lieutenant-Colonel TEMPLE WRIGHT every success as the result of his prolonged exertions.

THE MALARIAL MICROBE.

SAYS the *British Medical Journal*:—"A Rome correspondent of the *Corriere Sanitario* has sent the following statement to that journal in reference to Professor KOCH'S opinion as to the cause of malaria

"According to the illustrious Berlin bacteriologist, the malarial agent is neither a bacillus nor a microbe, but a virus which mosquitos belonging to a particular species produce and inoculate. Such virus is for these mosquitos a natural and vital secretion, but is poisonous to the individuals inoculated with it The insects which secrete the virus find the environment most favourable for them to live in, to dovelope, and to spread in those places that are called malarial and in those telluric, climatic, atmospheric, etc, conditions which characterise the malarial centres. The air, then, in malaria, cannot have so to speak, a greater or a more special effect than it has in many other diseases and we must even change the name of the disease, which responds to an absolutely erroneous concept, and up till to-day universally accepted in the scientific world and in public opinion... ..Professor KOCH will continue his studies and experiments, which up to now have had such a happy result."

THE USE AND ABUSE OF MEDICAL CHARITIES

ACCORDING to Dr GARRETT HOODER the proportion of Hospital out-patients to 1,000 of the population in the given cities and towns is as follows

London and Dublin 371, Edinburgh 421, Portsmouth 42, Oldham 33, and Sunderland 31.

The following are the recommendations which he puts forward for the correction of abuses.

a. The desirability of abolishing subscribers' letters

b. The desirability of dispensing with patients' payments

c The desirability of restricting treatment in the out-patient department to persons who really stand in need of hospital treatment

d The desirability of forming an inquiry agency for the purpose of getting reliable evidence as to the means of persons who seek hospital treatment.

e. The desirability of converting the free dispensaries into provident institutions.

f. The desirability of forming a central council, under the auspices of the mayor and town council.

OPENING OF THE RAJKOTE CHEMICAL LABORATORY

At Rajkote on the 29th November, Lord Sandhurst opened the Laxman Meram Chemical Laboratory Institution which is probably unique in India. The object of the establishment is to improve the practice of native medicine, to make known valuable Indian remedies to Western science, and to ascertain which native herbs are most adapted to Western science. Eventually it is hoped to make progress in the direction of bacteriology and sanitary science. The cost of the building is Rs. 30,000 which is provided by Adam Laxmanwalla. The equipment has been provided by the joint fund of the Chiefs and the up-keep will be met from the same source. The Governor, in opening the Laboratory, said the practice of medicine on the European system had hardly got beyond a few large towns, and the systems followed by native practitioners had a long history and considerable literature. Among a good deal that to western notions might seem imperial, there must be included a large amount of valuable knowledge, especially as regarded the properties of indigenous drugs. This was a new departure in the field of research, and in this direction he looked for immense development, owing to the scheme under consideration which owed its inception to the great munificence of Mr. Jamsetjee N. Tata of Bombay.

ADVERTISING DOCTORS.

Says The *Medical Times and Hospital Gazette*.—"There can be no doubt that advertising pays. It is therefore little to be wondered at that many doctors advertise. The more respectable doctors consider self-advertisement undignified and improper. The less respectable have little regard for dignity and propriety, and look at the matter from a purely commercial standpoint. The result is that the inferior section of the profession gains at the expense of the more honourable, and there is a premium on unethical conduct. This ought not to be so. If it is wrong for doctors to advertise themselves, the General Medical Council is in a position to put a stop to it. If it is not wrong, that fact ought to be made clear. We should then all have a fair start in what is usually a pretty keen competition. Some of the veiled methods of advertisement not unknown to a certain class of well-known consultants are undoubtedly very difficult to get at, and will probably in many cases have to be left to the influence of medical and public opinion. But bold, open, and often dirty advertisements by doctors can easily be dealt with. We shall feel obliged if our readers will supply us with as full evidence as possible of any advertisements by doctors in order that we may bring the matter to a final issue. We should also be glad of the same in the case of registered dentists, many of whom are bad offenders."

DEATH OF A PASTEUR PATIENT.

A young man named O'Leary, of the Indian Military Works Department, was bitten by a dog some three months ago in Mian Mir and proceeded immediately to the Pasteur Institute in Paris. He went through the prescribed twenty-one inoculations and returned apparently cured to Mian Mir, about three weeks ago, but died on the 27th November of hydrophobia. A peculiar point in the case is that the dog that bit Mr. O'Leary is still alive, and has so far not shown any signs of rabies. Mr. O'Leary was bitten just above the knee, and arrived in Paris with the wound healed up. This was looked upon as a bad point in the case, as the Professors insist on the wound being kept open. Mr. O'Leary's wound had closed, and the Professors in the Pasteur Institute did not guarantee a cure on that account. It is very difficult to prevent a wound healing, during the long period between a bite from a rabid animal and a patient's arrival in Paris. But this is an absolute necessity for the Professors to guarantee a cure in the Pasteur Institute.

MILITARY ASSISTANT SURGEONS AND THEIR PROSPECTS.

Referring to a demi-official announcement that appeared in the lay press of India quite three months ago, the *British Medical Journal* received by last mail says :—

"It is satisfactory to know that the emoluments of a most useful class of public servants have been materially increased. The Secretary of State for India has sanctioned proposals submitted by the local Government for improving the position of Assistant Surgeons of the Subordinate Medical Service. The service will in future be divided into four classes, on Rs. 85, Rs 110, Rs. 150, and Rs 200 respectively, the existing class on Rs. 60 being abolished. Promotion will be given after certain fixed periods of service, the highest class being attained after nineteen years instead of the present average of twenty-four years. The Assistant Surgeons of the Subordinate Medical Department are often placed in position of considerable responsibility, especially when in sub-charge of military hospitals, where during the absence of military medical officers, they have, in addition to other duties, full disciplinary power over patients."

Now, much time has elapsed since this bit of "news" found its way into the daily papers, but no *Gazette* notification has up to the present date been made concerning it. Who is responsible for this strange and unaccountable procedure? Some body is to blame, but who? The blessings which the *British Medical Journal* speaks of as "have been", have in reality *not* been, and when they *shall* be, is apparently matter for future settlement. However let us hear no more of suppositititous improvements. These announcements are aggravating, and if the Government is *not* prepared to carry out its promises, it is far better to preserve silence than to tantalise its subjects with vain hopes.

THE GROSE MEMORIAL. A MEDICAL PRIZE.

It is very gratifying to learn that a fund has been raised by members of the India Civil Service serving in the Madras Presidency for the purpose of founding a prize in memory of the late Mr. James Grose, who died at Ootacamund on the 7th June last. "The Grose Memorial Prize" will be awarded to the female student of the Madras Medical College standing first in the first College examination for the degree of medical practitioner. The total sum collected amounts to Rs. 667, which has been invested in 3½ per cent. Government paper, and the Committee, consisting of the Honorary Sir Henry Bliss, the Honorary Mr. Sturrock, and Messrs. J. H. Tremenheere, H. A. Sim, and A. G. Cardew, has intimated to the Director of Public Instruction its willingness to hand over the fund requesting that Government may be moved to sanction a grant-in-aid equal to half the sum raised. The total endowment would then amount to Rs. 1,000 which would yield an Annual return of Rs. 35, which it is hoped will be considered sufficient for the prize proposed. The Government has accepted the endowment with pleasure, and a half grant of Rs. 333-8-0 in aid of it. The Director of Public Instruction and the Principal of the Medical College are to be trustees for the endowment.

A NEW MEDICAL MAGAZINE.

The Grant Medical College has, writes the *Bombay Gazette*, started a magazine of its own. The editor explains in his preliminary greetings that the object of the publication is to encourage sport, and to record the progress of the College Gymkhana. But it has a broader object than that, for it treats of subjects calculated to improve the reader's mind to teach him what he wants to known ere he can become a medical practitioner. For instance, one article in the magazine is headed "A few remarks on some of

the difficulties met with by students while administering chloroform," in which the writer gives some interesting reading on the subject of his experience of chloroform. Then follows a paper entitled "A peep into the *post-mortem* room," after which Colonel Hatch discourses on "the successful removal of an ovarian cyst," a most remarkable case, which is fully described by the writer.

A NEW DEPARTURE FOR CANDIDATES FOR THE ARMY WARRANT MEDICAL SERVICE.

By a recent order of the Government of India, Captain Marcus T. Cox of the Calcutta Volunteer Rifles, Pioneer Company, a West Indian gentleman of respectability, a good citizen, a splendid sample of his race, has been permitted to allow his son to appear in the next competitive examination for candidates for the Warrant or Military Assistant Surgeon branch of the medical service of the Army, in appreciation of Captain Cox's excellent services as a Volunteer Officer in the Manipur expedition. Master Cox is an undergraduate of the Calcutta University and has very worthy credentials from the Rector of St Paul's School, Darjiling We congratulate Captain Cox for this special mark of esteem from the Indian Government, and we think, the step will prove that the Director General, I M S, and the Military authorities of the British Army have not acted unwisely, as Master Cox is sure to do credit to their choice, for he is the worthy son of a gallant father.

QUACKS AND THE LAW.

One is glad to see that the new Coroner has a sense of justice, and that he committed a man to the sessions for giving medicine to a man who afterwards died One hopes in spite of the Standing Counsel's efforts to screen this criminal, that Mr Wigley will go on doing his duty, and not rest till every single person guilty of this offence, which one is sorry to see is increasing rapidly in Calcutta, is brought to justice. If a man causes the death of another man, we know of no exception in the Penal Code which excuses him merely because he did not know better, nor is there any section of Penal Code, which we are aware of, that excuses a man from the results of homicide because he is a member of the College of Dentists, and, to use an Irishism, puts initials after his name instead of in front In fact the only result of this case is that, as Shakespeare observes, though it may make the unskilful laugh, it cannot but make the judicious grieve

ANGLO-INDIAN MEDICAL WOMEN

Miss D E Pratt, formerly a student of the Calcutta Medical College and afterwards Assistant Surgeon at the Lady Lyall Hospital at Agra, has been selected for the charge of the new hospital which the Maharaja of Kashmir is building at Srinagar in connection with the Dufferin Fund Miss Pratt, who has recently been home and taken the higher degrees in medicine, is now on her way out to join her appointment Among other lady doctors possessing English qualifications who originally studied at the Calcutta Medical College, and who are now in charge of important hospitals, may be mentioned Miss L Blong at Bhopal, Miss L Smith at Nagpur, Miss I. E. Sykes at Lucknow, and Miss Feiend Pereira at Chittagong Miss R. Cohen, who proceeded home about two years ago, having been given Lady Elgin's Jubilee Scholarship of £100 after a brilliant career in the Calcutta Medical College, recently gained her degree in Ireland.

THE PARKES MEMORIAL PRIZE.

Says the *British Medical Journal* —"The subject for the next Parkes Memorial Prize, which is open to medical officers of the Royal Navy, Army, and Indian Medical Services of executive rank on full pay (with the exception of the Assistant Professors of the Army Medical School during their term of office) is Venereal Diseases in the British and Indian Armies. Their Prevalence and Prevention. Essays, which must be illustrated as far as practicable from the personal experience of the writer, must be sent to the Secretary of the Parkes Memorial Fund, Royal Victoria Hospital, on or before December 31st, 1900. Each essay to have a motto, and to be accompanied by a sealed envelope bearing the same motto, and containing the name of the competitor.

NEW MEMBERS OF THE INDIAN MEDICAL ASSOCIATION

The following gentlemen have joined the Association since our last publication —

Claude R. Woods, M.D, C M., Ujjain Railway Station

M C. Mukerji, L M S, Assistant Surgeon, (Sirmoor State) Nahan.

R. L D Gupta, V L M S Central Medical Hall, Raipur.

V. Narayana Menon, C M S., Road Frontier Inspection Station, Nagaldime, Bellary District

William Forrester, M.R.C.S Eng., L R.C P Lond, Civil Surgeon, Gurgaon.

H L O Fleming, D M C.C, Assistant Surgeon, Fort Fulta *vice* Debipur.

NEW MEMBERS OF THE INDIAN MEDICAL ASSOCIATION PROVIDENT FUND.

The following gentleman have joined the I M.A Provident Fund as associate members since our last issue —

William Forrester, M R.C S Eng, L R C P Lond., Civil Surgeon, Gurgaon.

Dr A J Ignatius, No 22, Simpsons Road, Rangoon

HAFFKINE'S PLAGUE INOCULATION AN ADMITTED FAILURE.

A notable feature of Professor Haffkine's evidence before the Plague Commission is the candour with which he admits that all his efforts in the direction of curing plague by means of his serum have failed Indeed, he goes further "On comparing the mortality among those who passed through his hands with those who were treated in the ordinary manner, it was found that the mortality was *greater* among the patients who passed through his treatment" The curative treatment ought, of course, to be carefully distinguished from the preventive treatment, the efficacy of which has never been seriously disputed.

MORE DOCTORS FROM ENGLAND. INDIA GOES TO THE WALL

The Indian Government have asked for ten more medical men to serve temporarily on plague or general duty in Madras Of these, four have already been appointed Volunteers who may be ready to start for India at two or three days' notice are invited to send their names to the Revenue Secretary, India Office, White Hall Candidates must be under forty years of age Other information may be obtained on application

SHORT ITEMS AND PERSONALITIES

It is with much satisfaction says the *Lancet* we are enabled to inform our readers that His Royal Highness the Prince of Wales has now made an excellent, and, we may really say complete recovery from the severe accident which he met with in July last, and after the interval which has elapsed of more than four months, the cure may be reasonably considered permanent

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"I am glad to find you better," said John Hunter, the famous surgeon, to Foote, the equally famous actor, one morning,

THE

INDIAN ✦ MEDICAL ✦ ASSOCIATION.

ESTABLISHED AND REGISTERED 1894.

OFFICE AND LIBRARY:

50, Park Street, Calcutta.

TERMS OF MEMBERSHIP

Every man or woman, who being duly and legally qualified to practice medicine, by virtue of holding a degree or diploma or qualification in medicine, whether British, Indian, Colonial, European or American, whether from State Institutions or Independent Medical Schools, and every person holding a Government Certificate entitling such person to practice Medicine in any official or private capacity, shall be eligible for election to Membership in the Association.

Every person desirous of becoming a member, shall send an application in the form given below, to the Secretary of the Association, and the Council shall consider and dispose of same at their next meeting. On any person being elected a member, an intimation to the effect shall be notified in the Journal of the Association, and on payment of the subscription, a certificate of membership shall be issued.

Application for Membership.

I, residing at , am desirous of being elected a Member of the Indian Medical Association; and I agree to pay the subscription, and to conform to the Rules and Regulations now existing, or which hereafter may be made by virtue of the same.

Name..... | Address.....

Professional title..... | Date.....

Every Member shall pay a subscription of five rupees per annum which shall entitle him to all the privileges of membership. The subscription shall be considered due in advance on the 1st January in each year, and should be forwarded to the Treasurer.

The *Indian Medical Record* is the Journal of the Association, and is the medium of communication between Members of the Association. In it shall be inserted the Transactions and Proceedings, and all notices of meetings of the Association, and any other business which the Council deem necessary.

The Reading Room and Library of the Association are open to all members of the medical profession from 10 A. M. to 5 P. M. daily (except Sunday.)

Members who have paid their subscription to the Association, may obtain their membership certificates and copies of the First, Second and Third Annual Reports of the Association by applying to the Secretary. Name and address to be plainly written.

Officers and Council:

President:—Lal Madhab Mukerji, Rai Bahadur, L.M.S., F.C.U., Principal, Calcutta Medical School.

Vice-Presidents:—(1) E. W. Chambers, L.M.S., L.S.A., Lond.

(2) H. H. Sir Bhagwat Sinhjee, G.C.I.E., M.D., C.M., F.R.C.P. Edin., LL.D., D.C.L. Edin., Thakore Saheb of Gondal, Kathiawar.

Members of Council:—Representing *Bengal* and resident in Calcutta (4 members).

1. H. W. Jones, M.D., M.R.C.S., Eng.
2. J. G. Anderson, G.M.C.B.
3. K. G. Sircar, M.B., L.R.C.P., Edin.
4. Rakhal Das Ghose, L.M.S.

Representing——

5. *Bombay.*—Alfred McCabe-Dallas, L.M. Dub., L.R.C.P. Irel.
6. *Madras.*—C. G. R. Naylor, M.R.C.S., L.R.C.P., Lond.
7. *Central Provinces.*—Mirza Karim Khan, M.B., C.M., Edin.
8. *Punjab.*—Professor C. C. Caleb, M.B., M.S.
9. *N.-W. P. and Oudh.*—John Morton, M.D., L.R.C.P. & S. Edin.
10. *Burma.*—N. N. Parakh, L.S.A. Lond., L.F.P.S. Glas.
11. *Independent Native States.*—A. Mitra, Rai Bahadur, L.R.C.P. and S. Edin.
12. *Assam and Duars.*—Wm. Brown, M.B., C.M. Glas.
13. *Representative of Military Assistant Surgeons' Service.*—Major James Forsyth, S.A.S., H. E. The Viceroy's Staff.
14. *Representative of Civil Assistant Surgeons' Service.*—Hari Datt Pant, L.M.S., Assistant Civil Surgeon, Gonda, Oudh.
15. *Representative of Hospital Assistants' Service.*—J. M. Philip, C.M.S., Government Ophthalmic Hospital, Madras.

Treasurer.—Major H. C. Hodgkins, S.A.S., Medical College, Calcutta.

Secretary.—James B. Wallace, M.D., F.R.C.S., Editor, *Indian Medical Record.*

Solicitors.—Messrs. Dignam and Co., Attorneys-at-Law, High Court, Calcutta.

Bankers.—Messrs. Grindlay and Co., Calcutta.

RULES AND REGULATIONS
OF THE
INDIAN MEDICAL ASSOCIATION PROVIDENT FUND.

I. The Fund shall be called the Indian Medical Association Provident Fund.

II. The Fund shall be registered under Act XXI of 1860, and the Registered Office shall be situated in Calcutta.

III. The object of the Fund is to give members of the medical community in India and Burma an opportunity of making provision for their families on the mutual benefit system.

IV. Any medical man or woman, may become a member of the Fund.

V. The Fund shall consist of two classes of subscribers, namely, (*a*) those who are members of the Association called Associate members, and (*b*) non-members of the Association called "non-associates." The subscription in each class shall be as follows :—

(*a*). Every non-associate shall, on joining, pay an entrance fee of Rs. 10, which shall be credited to the capital of the Fund.

(*b*). An annual subscription of Rs. 6 shall be payable by every non-associate member which shall go to meet the working expenses of the Fund.

(*c*). Members of the Association will pay no entrance fee and no annual subscription. They will pay only their fee of Re 5 as members of the Association and the "calls" of rule (*d*).

(*d*) On the decease of any member, a call of Re 1 per head will be made on all the other members of the Fund of both classes

(*e*). To meet such calls, members of each class shall place in deposit in the Fund, a sum of not less than Rs. 3 at a time, to be renewed before the last rupee on hand has been paid on his account.

(*f*). Notice of the payment of a call shall be given by a post-card, and through the *Indian Medical Record*, which shall contain a statement of the sum paid on account of the member to whom it is addressed, and of the balance to his credit held in deposit in the Fund, and this shall be deemed a sufficient receipt for the payment of the call

VI The nominee or nominees of each subscriber shall, at his death, receive a bonus calculated at the rate of Re. 1 per head for each and every registered subscriber of the Fund, and who has a deposit in the Fund to meet the call.

VII. The claims of nominees in each class shall be paid as follows.—One-half on submission of certificate of death and surrender of entrance certificate (Rule X), and the remaining half, in accordance with the terms of Rule VII, after the claim is admitted by the Directors in meeting.

VIII. Applications for admission to the Fund must be made on a prescribed form which shall contain clearly written :—

(*a*). The full name, age, and address of the applicant.

(*b*) The class he wishes to join.

(*c*) An engagement on his part to submit to and abide by the rules of the Fund.

(*d*). The name, age, and address of the nominee or nominees for whose benefit he joins the Fund.

(*e*). And in the case of nominees who are minors the names and addresses of two or more guardians other than the subscriber, appointed in each case, to whom the bonus will be paid.

Every application must be accompanied by the entrance fee specified in Rule V (*a*), or by a postal money order or cash as subscription and "call" deposits due from associate members.

IX. A certificate of membership in the form prescribed shall be issued to each subscriber by the Secretary and Treasurer as soon as his name has been registered. This certificate may be renewed in favour of a fresh nominee on payment of As. 8 and surrender of original certificate. On a like payment being made, a duplicate certificate may be granted when the original is lost or destroyed.

X. Claims for payment must be submitted on a prescribed form containing a certificate of the death of the subscriber, signed by a duly qualified medical practitioner, according to priority of application, on a formal identification of the nominee, who shall be required to surrender the entrance certificate granted under the preceding rule.

XI. Every subscriber shall keep the Secretary and Treasurer of the Fund duly informed of any change in his address. If he fails to do so, he shall have no cause of complaint against the Fund for any disadvantage arising from such neglect.

XII. Any subscriber who fails to renew his deposit for payment of calls before it has been exhausted, and so cannot meet a call under Rule V (*c*) nor the subscription specified in Rule V (*b* or *c*) within the year for which it is due, shall, after reasonable enquiry, be adjudged a defaulter, and shall forfeit all claims upon the Fund. Nothing in this Rule, however, shall prevent a subscriber, whose name may have been struck off as a defaulter from joining the Fund as a fresh member on payment of all arrears

XIII. The Fund shall be managed by a President and three Directors resident in Calcutta, nominated by the Council of the Indian Medical Association from amongst their own members.

XIV —An Auditor, who shall be a Councillor other than a Director, shall be elected annually by the Council, the accounts being submitted to such Auditor quarterly for audit.

XV. The half-yearly Report of the Fund shall be published in the *Indian Medical Record*, after it has been placed by the Directors before the Council of the Indian Medical Association.

XVI —The Annual Report of the Fund shall be placed before the annual meeting of the Indian Medical Association.

XVII —Any member of the Fund having a grievance against the Directors or Treasurer of the Fund may appeal to the Council of the Association for a consideration of his case.

XVIII.—The Directors shall meet once a quarter for the transaction of business, and shall have power to make, vary, or repeal bye laws for the regulation of the affairs of the Fund, subject to approval at the next annual general meeting of the Association.

XIX.—All receipts, except sums credited to Working Expenses Account, shall be paid into the Bank of Bengal. When the sum accumulated in the Bank to the credit of Capital Account, in excess of the amount required to meet a call, admits of the purchase of Government Securities, an investment shall be made, and the interest obtained therefrom credited to Working Expenses Account.

XX.—When any question arises which, in the opinion of the Directors, should be referred to the whole body of subscribers, or which involves the repeal or alteration of or addition to, any of the rules of the Fund, the votes of subscribers shall be taken thereon, and the question so referred shall be decided by the majority of the votes received within one month from the issue of the circular.

FORM OF APPLICATION FOR ADMISSION.

TO THE SECRETARY AND TREASURER,
Indian Medical Association Provident Fund, Calcutta.

DEAR SIR, *(Station)*————*189* .

I,————

hereby apply to be admitted as (1) associate / non-associate member of the Indian Medical Association Provident Fund, Calcutta, on behalf of my (2) ————

now————years of age, residing in————

and I bind myself to submit to, and abide by, the Rules and Bye-laws of the said Fund.

I also agree that all claims on the above Fund shall be forfeited by my nominee, should I neglect to pay my dues.

I forward herewith Rs.————

Yours faithfully,

Usual Signature and Address————

(1.) Score out one word or the other to indicate which class you join.
(2.) Here state relationship. No minor will be accepted as a nominee unless two or more guardians appointed, to whom the bonus secured will be paid, the name and address of each guardian being clearly written on the back of this form.

(PLEASE WRITE CLEARLY.)

Guardians appointed for nominee named on reverse

"You followed my prescription, of course?" "Indeed I did not, Doctor," replied Sam, "for if I had done so I would have broken my neck." "Broken your neck.!" exclaimed Hunter, in surprise. "Yes," said Foote, "for I threw your prescription out of a three-story window."

I wish once more to express the opinion that the next advance in the treatment of fibroid tumours will be the general adoption of early operation and the more general substitution of myomectomy for hysterectomy, as being the most conservative treatment of these growths.—Charles P. Noble.

The Travancore Durbar Physician has applied to the Secretary to the Surgeon-General with the Government of Madras, for a supply of plague serum sufficient to inoculate a thousand persons. He has also written to Paris for a supply of serum to inoculate seven thousand persons.

According to an editorial in the *Therapeutic Gazette* for October 15th, Dr. H. P. Loomis says that one can not but be impressed with the moral effect which hypodermic injections have on some patients. He has seen, in neurotic patients, fever leave and weight increase under daily hypodermics of water.

Many a man carries gonorrhœa latent for years. The seminal vesicles may become specifically inflamed and be a source of reinfection or of innocently infecting others. The microscope should be used to verify the case and the examination made after stripping the vesicles.

Dr. Baldy teaches that in a *slow involution of the womb after miscarriage* or abortion, as well as in subinvolution after labor, the daily irrigation of the uterine cavity with a gallon of a mild alkaline antiseptic solution of a high temperature, 110° to 115° F., promotes prompt involution.

In a case of *persistent headache*, Dr. Vansant demonstrated the great value of careful inspection of the nasal chambers and the removal of all accumulations of discharges from the sinuses, followed by the local application of heated air, which afforded immediate relief

We much regret to have to announce that Sir John Banks, K. C. B., Regius Professor of Medicine in the University of Dublin has resigned that position which he has for so many years filled with such distinction. The Board accepted his resignation with great regret.

Major J. Watson, R A M.C., attached to the Station Hospital, Agra, has been appointed to the medical charge of the Station Hospital at Darjiling, *vice* Major R. R. H. Moore, R.A.M.C.

The highly successful Fancy Fair which was organised by Lady Collen in aid of the Ripon Hospital at Simla, in October last, has resulted in a sum of Rs. 21,000. The money will be utilised in supporting a free ward for poor Europeans.

The Government of India has suspended the order calling out 100 doctors for field service, but they have been warned to be in readiness to start at a moment's notice should any contingency arise.

Tying a catheter into the urethra is one of the most effectual methods of preventing the occurrence of rigors of Urethral Fever, a fact that is quite inexplicable if rigors are caused by reflex irritation of the deep part of the urethra.

Among the list of successful candidates for the first Professional examination for the diploma of Fellow, we see the name of Shapurji Hormasji Modi, M.R.C.S. Eng., L.R.C.P. Lond. L.M.S., Bombay, Grant Medical College.

Captain Hubert Malins Earle, M.R.C.S. Eng., L.R.C.P. Lond (1890) has been appointed Officiating Resident Surgeon to the Eden Hospital, Calcutta, *vice* Stevens "wintering" in Darjiling.

Lieutenant-Colonel T. Grainger, M.D., I.M.S., has been appointed to act as Civil Surgeon of Chumparun, during the absence, on deputation, of Major R. R. H. Whitwell, I.M.S.

Surgeon William J. Maillard, Royal Navy has received the Victoria Cross for gallantry at Candia during the massacre.

A report seems to have been circulated that Sir Joseph Fayrer intended retiring from practice, the *Lancet* in its last issue contradicts this.

"How to ride the bicycle" by Joubert, is the latest book on the "wheel." Clear the way for Brookes' Soap.

Nearly sixty persons are killed in this country by snakes every four and twenty hours.

NOTICE.—Subscribers are requested to communicate any *temporary* change of address, not to the Office of this Journal, but to the Post Office, through which they are accustomed to receive their Journals.

VITAL STATISTICS OF CALCUTTA.

Statement of Deaths from Principal Diseases in Calcutta during the week ending 12th November to the 5th December 1898

Week ending.	Cholera.	Plague.				Small-pox.	Fevers.	Bowel complaints.	All other diseases.	Total.	Total population, according to the census of 1891.	Ratio per 1,000 of population per annum.
		Sporadic.		Epidemic.								
	Sp. radic	Seizures.	Deaths.	Seizure.	Deaths.							
12th Nov. ...	2	...	...	...	...	...	147	54	188	391	6,81,560	29 9
19th Nov. ...	...	...	...	...	...	...	148	47	224	419	...	32·0
26th Nov. ...	...	...	...	...	...	1	146	54	221	422	...	32 3
5th Dec. ...	4	...	...	...	...	...	154	74	227	459	...	45·1

Current Medical Literature.

MEDICINE.

Conjugal Diabetes.

Dr. Schram, before the Harvard Medical Society of New York City, is reported in *Medical News*, as saying that in a series of 5,000 cases, Boisumeau found 1.8 per cent. of conjugal diabetes. Most investigators agree that the development of the disease in both husband and wife is not accidental, but that an etiologic relation exists The facts thus far published do not shed much light on the two theories of causation now held, viz: That the ordinarily accepted causes of diabetes are active in both husband and wife, and that the disease is contagious. Cases have been reported with almost conclusive evidence of contagion, but the nature of the contagium and how it is conveyed are mysteries. In regard to the doubt which has been expressed as to contagion in diabetes, I would like to mention some recently reported cases in which laundresses apparently contracted the disease by washing the clothing of diabetes. However, the question is still an open one. The authorities differ very much, but the French school is inclined to believe that diabetes is contagious. Dr. Schram reports the case of a woman, aged 76 years. She first came under observation seven years ago, and had been married forty-eight years. Sugar was constantly found in the urine in amounts varying from less than 1 to 4 per cent. She refused to submit to rigorous diet in July, 1897, in diabetic coma. Thirst and pruritus had been the most troublesome symptoms. An extensive ischiorectal abscess developed two weeks before death. One week later the husband's urine was found to contain 3 per cent. of sugar. Symptoms of the disease sufficient to attract his attention antedated his wife's death by about two weeks. Sugar is now found in his urine in abundance, but disappears for a time under diet and opium. He is now 76 years of age and apparently contracted the disease seven years after it was first discovered in the wife, and after nearly fifty-three years of married life. The couple had eleven children, seven of whom are alive and well.—*Jour Amer. Med. Assoc.*

Beechwood Creosote in Phthisis

Mr. Charles Lamplough thus sums up the results of his observations on one hundred cases of pulmonary tuberculosis treated with large doses of beechwood creosote:

Having compared the objections raised against the administration of beechwood creosote in phthisis with the results obtained at this hospital by treating one hundred cases with this drug, I would suggest that the following points are worthy of consideration and further investigation.

1. The best beechwood creosote can be given with benefit, in amounts varying from one hundred and twenty to two hundred and forty minims daily, in cases of pulmonary tuberculosis.

2. The drug is best administered in cod-liver oil or in a spirituous solution, and in some cases the "creosote chamber" or oro-nasal inhaler may be ordered in addition, with advantage.

3. The dose should be small at first, but it can be rapidly increased to forty minims three times daily for an adult. In three cases doses of thirty minims three times a day were well borne by children.

4. Large doses rarely cause any gastric disturbance: on the contrary, the appetite is frequently increased, symptoms of dyspepsia disappear, and cod-liver oil is more easily assimilated. The cough, expectoration, and night sweats are diminished, and the physical signs improved.

5. Owing to its disinfectant action in the alimentary canal the drug probably diminishes the risk of tuberculous enteritis by self-infection when patients swallow their sputa, but owing to the increased peristalsis which is created by creosote, it is usually contraindicated in cases where the ulceration is already advanced.

6. The drug does not tend to cause hæmoptysis, but rather to prevent its recurrence

7 Creosote does not irritate the normal mucous membrane of the genito-urinary tract.

8. Owing to its extremely small cost pure creosote can be given to a much larger number of patients than the carbonates of creosote and guaiacol, which respectively cost four times and twelve times as much as the older drug.—*N. Y. Med. Jour.*

Association of Hysteria and Epilepsy.

The expression "hystero-epilepsy," introduced by Charcot, in no way applies to the occurrence of epilepsy and true hysteria in the same subject. Joffroy points out that these two diseases are sometimes combined, and that this combination often presents somewhat unusual features. Thus, he quotes the case of a girl who presented two forms of crises, the one characterised by vertigo coming on instantaneously without any precursory sign, and disappearing suddenly. At other times there was a preceding gastric aura followed by loss of consciousness for some seconds. The other form was preceded for a considerable interval by a condition of *malaise* with very marked sensation of globus, ending in a marked hysterical seizure, at times accompanied by loss of consciousness. Should this not occur there was a violent attack of crying. At the same time various stigmata were present, such as ovaralgia, complete left hemianæsthesia, loss of taste and smell on the same side. There is thus no doubt as to the occurrence of hysteria in the case, and it is no less certain that true epilepsy was present as well. Joffroy quotes another example in which there was always an attack of hysteria major, followed by a state of drowsiness similar to that found in epilepsy. In other instances the epileptic seizure may precede the hysterical attack. The author finds that the administration of bromide modifies markedly the epileptic condition in such a manner that the case retains only the hysterical element. A noteworthy point seems to be that bromide treatment does not appear to reduce the frequency of the seizures, exerting its effect merely upon the epileptic element.—*Brit. Med. Jour.*

Clinical Value of Diphtheria Antitoxin Administered per Os.

By Dr. J. Zaborsky, The conclusions reached by the author from cases reported are as follows:—

1. Diphtheria antitoxin acts similarly whether given by the mouth or subcutaneously, but its effects occur much later when given in the former way.

2. It is possible that the intestinal epithelium refuses, at certain times, to take it up, and, therefore, it is a less reliable method.

3. This mode should be employed in mild cases when objections stand in the way of its hypodermatic use. It may be used in mild cases in adults.

4. Its use by the mouth as a prophylactic measure is to be recommended, as it presents many advantages. However, if the child has been exposed to diphtheria for as much as two days, the hypodermatic method should be employed.

5 Joint pains, erythema, urticaria, and dysmenorrhea are not prevented.

6. From a clinical standpoint, therefore, it is to be urged that for curative purposes, the administration by the mouth should be restricted to exceptional cases; but for prophylactic purposes this method should receive the preference.—*N. Y. Med. Jour.*

SURGERY.

Abuse and Danger of the Nasal Douche.

THE author has written a sensible article on this subject. He speaks of the very common practice of douching the nose for its every apparent ill, without first examining to know if douching is indicated. He says: "It has been prescribed by general practitioners to every patient who complains of having to blow his nose too often; to every one who has a feeling of the nose being stopped up, and for the relief of genuine obstruction of this organ, though it be a deflected septum or new growth in the nasal cavity." These remarks apply with equal force to the abusive employment of the retro-nasal douche.

Aside from the inadequacy of universal douching, its disappointing and depressing effect upon hopeful patients, there are dangers that attend its misuse. Liquids charged with carbolic acid, alum, zinc salts, etc., even in weak solutions, are highly injurious. Pure water is badly borne.

The only harmless liquids—as shown by ARONSOHN—are those formed by the physiological solution of sodium chloride (0.73 per cent.), of sodium bicarbonate (1.46 per cent.), of sodium sulphide (2.92 per cent.), etc., and these solutions become injurious when much weaker or stronger than this.

Injury is done to the mucous membranes and olfactory nerves by antiseptic douches. Distressing headaches are caused by improper use of even proper medicaments in the nose. Sinusitis and otitis media may be caused by forcing irritating and unsterilized liquids and purulent secretions into the accessory cavities when douching is done most carefully. The surgeon should first investigate and determine the cause of catarrh. Obstructions in the nose should be removed and explicit directions given each patient who is to use the douche.

That "cleanliness is next to godliness" is demonstrated in nasal surgery. Good results follow good treatment, and good treatment embodies perfect cleanliness, so far as it can be secured.—Dr. LICHTWITZ in *Post-Grad.*

Influence of Age, Sex, and Race in Surgical Diseases.

DR. W. I. RODMAN, of Louisville, read a paper with this title. The author said that negroes were practically immune from varicocele. An analysis of five hundred cases operated upon showed not a single instance of this condition in negroes, there being only one case encountered in a mulatto. Extensive correspondence by the author with eminent surgeons in large Southern cities had corroborated this statement. The colored race was far less frequently affected with gall stones than were the whites. Of one hundred and six cases of gall stones not one was met with in the negro. Tetanus was more frequent in negroes than in whites. The causes for this were given. Enlargement of the prostate was comparatively common in the white person after fifty, but was rarely seen in the negro. The author had searched the records of the Louisville Hospital for ten years, but had been unable to find a single case of enlarged prostate in the negro. Congenital deformities, such as harelip, cleft palate, spina bifida, etc., were far less frequent in the negro, according to the experience of Southern practitioners, than in whites. Not a single case of harelip or of cleft palate in the negro had been operated on in the Louisville Hospital for the last ten years. The speaker had never encountered clubfoot or spina bifida in the negro in the last ten years. Other surgeons corroborated him as to the rarity of these affections in the negro race. Very few cases of erysipelas occurred in colored persons. Aneurism, on the other hand, was far more common, almost three to one, in the colored than in the white race. Three times as many cases occurred in men as in women. Stone in the bladder was much more frequent in the white than in the negro race. —*Med. Rec.*

Direct Transplanation of Muscles in the Treatment of Paralytic Deformity.

IN a large number of cases of infantile paralysis, involving the thighs, the tensor vaginæ femoris and the sartorius escape, the lower extremity becoming flexed and adducted. To overcome this deformity and utilise the sartorius, Goldthwait has five times attached its lower end to the tendon of the quadriceps femoris just above the patella. Three cases were improved, and two failed owing to the giving way of the sutures. The author also reports a case in which he attached the common extensor and tibialis anticus in the lower part of their course, to overcome deformity consequent upon tibialis anticus paralysis.—*Clin. Jour.*

Acute Otitis Media.

THE following simple device, always convenient gives grateful relief: A piece of cotton is placed lightly in the mouth of the canal. A pipe is filled with tobacco and lighted. Then a piece of clean cloth is placed over the mouth of the pipe bowl and gently blown through, while the lip piece of the warm stem rests against the cotton pledget. This filters the warm smoke through the cotton into the canal, and a grateful sedative effect is soon obtained. The author does not remember having seen this remedy mentioned in books, but has witnessed its efficacy in the absence of other remedies. The practice indulged in by the laity of pouring oils, etc., into the ear is a vicious one, since these become rancid, irritate, and predispose to a subsequent inflammation. Poulticing is also bad, for it favors suppuration and perforation of the drumhead.—*Med. Rec.*

Large number of Foreign Bodies in the Stomach: Gastrotomy.

IN the *Journal of the American Medical Association*, Dr. A. H. MEISENBACH has published the case of a man, aged twenty-two years, terming himself "the human ostrich," who had for nine years followed the "profession" of swallowing glass, metal, &c. He suffered no discomfort until the end of that period when he complained of pain in the stomach. Whilst standing a mass of about the size of the hand could be felt in the umbilical and hypogastric regions which could be raised and which descended with an impulse. When recumbent as he turned from his back on either side the mass moved towards that side. A skiagram showed a shadow in the umbilical region. Gastrotomy was performed and 118 articles, besides about an ounce of broken glass, weighing in all 1 lb., were removed. The articles were: 27 staples, 15 screws (1 in. and 1¼ in.), 52 nails (2 in. and 1¼ in.), 21 cartridges, 2 pocket-knife blades, and 2 inches of brass chain. The patient recovered but an attack of pneumonia of the right base followed the operation. Dr. MEISENBACH attributes this to the X-rays, to which the patient had been exposed on several occasions for long periods. X rays dermatitis is now well-known and deep-seated injury has also been claimed as an effect. Dr. SOREL, a French surgeon, has already asserted that pneumonia can be produced by the rays; other writers mention periostitis. The retention for such a long period of this extraordinary collection of foreign bodies in the stomach without injury and even without symptoms is remarkable.—*Lancet.*

OBSTETRICS AND GYNÆCOLOGY.

Rupture of the Uterus, probably Traumatic, in Third Month of Pregnancy.

HIVET related the following case:—A patient, aged 41, multipara, was admitted to the Hospital Necker on 22nd March and died half an hour after admission. There had been amenorrhœa for three months and a half, violent pains for three days. On 21st March symptoms of internal hæmorrhage set in, and a voluminous fluid tumour was found in the posterior and left lateral *culs-de-sac*. The necropsy showed acute peritonitis. The two layers of the left broad ligament were separated by a large collection of fluid which had passed anteriorly between the uterus and bladder, raising the peritoneum, and posteriorly passed up into the lumbar region, following the utero-ovarian vessels. The uterus was three finger's breadths above the symphysis pubis; the appendages were normal. On incising the outer border of the left broad ligament, a fœtus of 3 months with its membranes was found in the midst of a quantity of blood clot, and on washing out the cavity a circular perforation of the uterus, as large as a 5-franc piece, was found, forming a communication between the uterine cavity and the cavity in the broad ligament. The vagina was intact. In explaining the condition, the author excludes pathological alteration of the uterine walls, for these were found healthy; also external injury, for there had been none; also spontaneous rupture, for no case has ever been recorded so early in the pregnancy, and concludes, therefore, that the perforation was due to injury of the uterus from within, probably by a rigid sound. Most likely the orifice of rupture was at first narrow, and widened out, under the influence of uterine contractions, sufficiently to allow the passage of the fœtus and its envelopes.—*Brit. Med. Jour.*

Kidney Failure in Pregnancy.

EWING MARSHALL, M.D, the writer thinks that there is much confusion on the subject of kidney pathology; and believes that the initial step is a failure of assimilation; and that the changes in the kidney are secondary, and resultant. With this pre-organic period of kidney failure, or some latent form of kidney lesion with the kidney laboring, then pregnancy will give the kidney more work than it can accomplish, and then we have the symptoms of failure.

Treatment:—First, strive to restore equilibrium so promptly as to prevent organic changes in the kidney.

Second, temporize with the kidney after it is organically involved by giving it the least possible work by dieting, and by keeping the skin, the bowels, and the lungs at the highest possible eliminative potency.

Treatment of kidney failure in pregnancy is to prevent the serious climax of kidney failure, which is eclampsia; second, to treat the latter.

When eclampsia occurs the uterus should be at once emptied after which morphia, chloral, chloroform, etc., may be used to quiet the reflexes.—*Post. Grad.*

Vaginal Colpotomy: its Advantages and Limitations.

DR. T. HENRY WILSON read a paper on this subject. Having described the method of anterior colpotomy, he pointed out the facility with which the adnexa might be drawn down and examined, adhesions of the ovaries separated, and tubes and ovaries removed, or, if found healthy replaced. Small subperitoneal myomata, if pedunculated, might be ligated, or, if sessile, incised, removed, and the peritoneum closed over. Small ovarian and parovarian cystomata might likewise be easily treated, or if too large the contents might first be evacuated, the pedicle tied, and the cyst removed. He expressed disapproval of the operation of vaginal fixation for retroversion, except in cases past the child-bearing period, or for the control of hæmorrhage impossible by other means. He then dwelt specially on the treatment of pyosalpinx by this method, and laid stress upon the usual site of rupture of the pus sac when separating adhesions—namely, the posterior surface, which was the most unfavourable situation in operating by coeliotomy but favourable when by vaginal colpotomy. He strongly advocated removal of the uterus in severe cases of pyosalpinx with dense adhesions of long standing. Having described the operation of posterior colpotomy, he discussed the question of pelvic hæmatocele and pelvic abscess, pointing out the great advantage this method presented for efficient drainage. Densely-adherent ovaries deeply situated in DOUGLAS' pouch he regarded as suitable for the posterior operation, but he deprecated treatment of ruptured tubal pregnancy by the vaginal method. Two difficulties in colpotomy were emphasised, namely, rendering the vagina aseptic and reaching the peritoneum. He also drew attention to the ever-present danger of wounding the ureters. He compared the separation of adhesions by SCHULTZE'S method and vaginal colpotomy, with the danger of concealed hæmorrhage in the former, and expressed his preference for the latter method as being more under control. He insisted strongly that no one should undertake vaginal colpotomy who was not prepared to open the abdomen if found necessary, as there was always present the danger of uncontrollable hæmorrhage, and the possibility of being unable to complete the operation from below. He then mentioned certain cases not suited to this operation, as large dermoid tumours, deformity of the pelvis, rendering the operation very difficult; large ovarian tumours and advanced ectopic gestation. He claimed as advantages the absence of risk of ventral hernia, less shock, absence of the distressing thirst so common even after exploratory abdominal incision, and more speedy convalescence. In summing up he thought the question to ask oneself was, Can this be done by the vagina? —*Brit. Med. Jour.*

Some Common Mistakes in Gynecological Diagnosis

DR. J. C. WEBSTER says symptomatology and clinical history are determinate and often cannot be distinctly correlated with various lesions. Other than local factors must be taken into account. Of chief importance among these is the neuropathic state. A neurotic condition may be developed from causes foreign to the pelvis, and this may manifest itself in intense pain referred by the patient to the pelvic lesion. In another set the symptoms of pelvic pain are developed as one of the phenomena of a neuropathic state, there being no local lesion of any kind.

Mrs. H. complained of pain in the bladder and was treated for cystitis without success. Cystoscopic examination showed a normal mucosa except a congestion of the right ureteric orifice. Palpation of the loins revealed an enlargement on the right side. Bacteriological examination of the urine showed the tubercle bacilli. Operation resulted in the removal of a tuberculous kidney.

Another case is cited in which painful micturition was an early symptom of locomotor ataxia. A chronic parametritic abscess had given symptoms of cystitis. A Russian lady-doctor was treated for cystitis for some time without success. Examination showed a small fibroid on the anterior uterine wall near the attachment of the bladder. Cancer of the rectum gave symptoms referable to the coccyx which was excised under the belief that coccygodynia was the trouble. Papillomata of the bladder may give rise to hematuria which may often suggest the kidney as the source.—*Post Grad.*

PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

Metabolism in Total Resection of the Stomach.

DR. HOFFMANN, the author, has investigated the metabolism in SCHLATTER'S well-known case of total resection of the stomach. Six and a half months after the operation the patient had gained 5.4 kilog. (9 lbs.) in weight. It was found that the amount of nitrogen present in the stools varied within normal limits, but during the six days a complete nitrogenous balance was not obtained as occurs in health. There was a retention of 0.1 to 1.4 g. (1½ to 21 grns.) of nitrogen. This retention is known to occur in convalescence from acute illnesses, etc. There is no increase in weight during the first period of observation. A month and a half later a further investigation was made with a more varied diet, and here the absence of the stomach seemed of no importance. A nitrogenous balance could now be established, showing that the regeneration of the blood was so far complete that there was no longer any need of retention of nitrogen. The retention of phosphorus was also marked. HOFFMANN found that fatty matters were satisfactorily dealt with, so that of 8.5 g. (127 grns.) taken only 4.64 g. (70 grns.) were excreted. He adds that this shows how incorrect it is to treat patients suffering from chronic stomach disorders with as little food as possible. The author has also investigated the question of the action of hydrochloric acid upon putrefactive processes, and he concludes that the absence of the acid in this case was without influence upon these putrefactive processes in the alimentary canal. He goes so far as to add that the administration of hydrochloric acid as a disinfectant of the intestinal contents is useless. As regards the quantity of chlorides in the urine, there was no decrease after the chief meal in this case. This confirms the current view that the diminution of the chlorides in the urine after a meal is due to the hydrochloric acid excreted by the stomach. The absolute acidity of the urine was higher in this case than in ordinary individuals. The retention of sodic chloride was striking, without there being any increase in the body weight. There was no relationship between the excretion of chlorides and the acidity of the urine in the different periods of the day. The urine was examined for the presence of pepsin, but no trace was found.—*Post Grad.*

Telegony.

THIS term was proposed by Professor WEISMANN to denote the cases where the female is so far influenced by the first sire to which she bears offspring that the subsequent offsprings to other sires presents some of the characteristics or peculiarities of the first. Early in the century Lord MORTON bred from a chestnut mare a quagga hybrid, and the mare afterward produced to a black Arabian horse a filly and a colt marked like the hybrid. In the *Scottish Medical and Surgical Journal*, Dr. J. C. EWART takes up the subject from the view-point of his own original researches. In 1895 Professor EWART formed a small stud and commenced various crossing experiments between horses and zebras. He now has given zebra mare hybrids, and the dam of a last year hybrid has recently produced to an Arab horse a foal presenting numerous zebra-like stripes over the croup and loins. He enumerates the explanations of this phenomenon that have been suggested by Sir EVERARD HOME, HERBERT SPENCER and WEISMANN, all of which he thinks are highly improbable.—*Jour Amer. Med. Assoc.*

Alterations in the Shape of the Trachea.

SIMMONDS, prosector at the large hospital at Hamburg, has been making a study of casts of tracheas. He found numerous constrictions, dilations and angularities; scoliosis was noted in one-fourth of all the cases. Constrictions produced by the pressure of aneurysms, tumors and latent goiters were frequent, also a groove which he attributes to the pressure of the arteria anonyma. The walls were frequently found ossified and flattened in elderly persons, for which he suggests the descriptive name of "senile sabersheath trachea." Universal dilation was only noted in one case, probably congenital, but partial ectasia was common, almost invariably in the middle section of the rear wall, in elderly persons, accompanied with atrophy of the wall.—*Jour. Amer. Med. Assoc*

Etiology of Syphilis.

VAN NIESSEN, of Wiesbaden, in an exhaustive article embodying the result of much orginal work states that: (1) Syphilis is a chronic infectious disease of the blood, the contagium reaching the blood from without by means of the lymphatic vessels, and in turn is brought to the other tissues of the body from the blood by means of the lymphatics (2) The contagium of syphilis in every case and in every stage of the disease from the moment of its entrance into the blood is capable of microscopical demonstration by staining and by cultivation. In many cases it can be found in the urine and milk: the semen, the sputum, the sweat, and the excrement may also contain the germs of the disease. (3) The contagium is not found in cases other than syphilis, or in diseases complicated with it. (4) The virus of syphilis is a pleomorphous form of bacillus which stands in close relation to the higher organized fungi such as the actinomycetes of the class *Dematium* and *Cladosporium*. (5) The detection of the etiological factor of syphilis in the blood is an absolutely sure criterion for the diagnosis of syphilis and is therefore of the highest diagnostic importance in disputed cases requiring differentiation. (6) In all its stages syphilis is inheritable and communicable. This applies also to rabbits which are capable of being infected experimentally with syphilis. (7) With the therapeutic means known up to this time syphilis is absolutely incurable. Relative healing merely denotes a latency of the disease. It is therefore of the greatest importance to mankind that a really curative agent be discovered. —*Inter. National Mag.*

Congenital Tumours.

SCHMORL exhibited, at a recent meeting of the Gynæcological Society of Dresden, three rare specimens of congenital tumour. The first was a teratoma attached to the pelvic extremity of the fœtus by a cystic projection passing between the rectum and the coccyx. It was of the size of an infant's head, and was the cause of delay in labor. The second was a growth from the right pleural cavity It was of the size of a pigeon's egg, of firm consistence, and of a brownish red colour, and it was attached by a broad base to the vertebral column just above the diaphragm. It was not attached to the right lung, but it consisted of an alveolar structure very closely resembling that of the lung. It was regarded as an accessory and imperfectly formed pulmonary lobe. The third specimen was a congenital tumour of the stomach, which had been removed from an infant which had died from pneumonia when eight days old. It was of the size of a bean, and was situated in the greater curvature, about 3 mm. distant from the pylorus. It lay chiefly in the submucosa and muscularis, and had a gelatinous appearance on section. Microscopically it was an adenoma.—*Brit. Med. Jour.*

Anti-Tetanic Properties of the Central Nervous System.

WASSERMANN and Takaki find that the brain and spinal cord of man, guinea-pig, rabbit, pigeon, and horse exert an anti-toxic action towards the tetanus toxin. One c.c. of brain-emulsion was found to neutralize ten times the fatal dose of tetanus toxin in mice even when injected six hours after the toxin. The spinal cord acted less powerfully than the brain, while the liver and other organs were without action.—*Treatment.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Disinfection of Rooms.

Novy and Waite conclude a paper upon the above subject with the following general directions (1) All cracks or openings in the plaster or in the floor or about the door and windows should be caulked tight with cotton or with strips of cloth (2) The linen, quilts, blankets, carpets, etc, should be stretched out on a line in order to expose as much surface to the disinfectant as possible. They should not be thrown into a heap Books should be suspended by their covers, so that the pages will fall open and be freely exposed. (3) The walls and floor of the room and the articles contained in it should be thoroughly sprayed with water. If masses of matter or sputum are dried down on the floor, they should be soaked with water and loosened No vessel of water should, however, be allowed to remain in the room (4) One hundred and fifty centimetres (five ounces) of the commercial forty per cent solution of formalin for each one thousand cubic feet of space should be placed in the distilling apparatus and be as rapidly distilled as possible. The keyhole and spaces about the door should then be packed with cotton or cloth (5) The room thus treated should remain closed at least ten hours If there is much leakage of gas into the surrounding rooms, a second or third injection of formaldehyde at intervals of two or three hours should be made —*N. Y. Med. Rec*

Production of Immunity.

Whatever method be used, the following points are now almost proved (1) the immunizing substances are in all probability of a proteid nature, (2) sterilized cultures or filtrates deprived of their specific poisonous properties may have a marked power of producing immunity, (3) an inoculated animal is for a short time after inoculation more susceptible to an attack of the specific disease, but as soon as this stage of susceptibility has been passed the resistance is increased, (4) whatevever specific bacteria are used, either in the virulent or the attenuated form, the aim is to produce a mild attack of the disease, as a result of which the animal is immune (5) the period required for the acquisition of immunity is in this case much greater than when antitoxin blood serum is used, in which latter case a protective influence is recognized almost immediately, or at any rate, in the course of a few hours, (6) it is found, however, that the immunity so produced (the passive immunity of Ehrlich) is more transient than that obtained by inoculation with microorganisms or their products, (7) the blood serum of naturally immune animals has not yet been proved capable of producing immunity when injected into susceptible animals Treves' "*System of Surgery*"

Common Errors of General Practitioners in Dealing with Cases of Pulmonary Tuberculosis.

Dr Frederick I. Knight of Boston, referred to certain common errors which he thought might be diminished if his remarks were indorsed by the members of the association in such a way as to give them the authority needed to influence the general profession. The errors to which he especially called attention were (1) Failure to make an early diagnosis, which is now easy since the discovery of the tubercle bacillus (2) Failure to admit the gravity of the situation the moment it is discovered, and to put the patient at once in the best possible condition for recovery Niemeyer used to say that the danger of a consumptive patient was "that he became tuberculous." In the light of modern pathology Dr Knight would say that the danger of a tuberculous patient was that he became consumptive, *i e*, the subject of secondary infection. There was often failure also to impress the patient with the gravity of the situation sufficiently to secure his thorough co operation in the effort for his recovery. (3) Temporizing, giving nauseating medicines and too much alcohol, and prescribing exercises, etc., which only hasten the decline. (4) Sending patients away from home who have only a few months or weeks to live, or who have not sufficient money to live properly away from home long enough to do them any good, also exercising insufficient care in the selection of a residence for those who would probably be benefited by a change. (5) Insufficient professional supervision of patients, who always require constant watchfulness, whether they remain at home or go to some climatic resort —*N. Y. Med Rec*

Syphilis as a Cause of Abortion.

Dr J A Ouimet concludes (1) Syphilis is a powerful cause of abortion, the abortion being due to a lesion of the fœtus itself or its appendages (2) It occurs mainly about the seventh month The father, if alone syphilitic, can transmit the syphilis to the product of conception The latter is more liable to occur the nearer the moment of conception is to the beginning of syphilis (3) The mother may give birth to a syphilitic child, while remaining free from syphilis (4) When the father and mother are both syphilitic the child rarely escapes infection (5) The mother, if syphilitic before pregnancy, is more liable to give birth to a healthy child the more ancient the syphilis (6) The nearer the syphilis approaches the termination of pregnancy, the greater chance the child has to escape infection (7) The child born of a syphilitic mother may come into the world presenting lesions manifestly syphilitic, or be born apparently healthy and become syphilitic only after some months or even years Syphilis imparts no particular characteristic to the course of confinement Mercurial treatment should be instituted at the beginning of pregnancy —*N Y Med Rec*

Legal Restraint of Marriages.

Russell recently presented "A Plea for Posterity," before the Washington County (Pa) Medical Society, a paper in which he cites statistics of many present sociologic conditions and makes a plea for legal restraint of marriage among certain classes He says "Some would deny the right of existence, claiming that this right has been forfeited by the inferior mental, moral, or physical status of himself or his ancestors As the existing order of things involves the visiting of the father's sins upon the children, even the most conservative must admit that the *defective has no right either natural, moral, or legal, to produce a posterity cursed with his affliction to be a danger and a burden to your posterity and mine* There are, however, other fountains feeding this stream of corruption, and we can never hope to stay the tide until they are controlled through heredity itself, by *denying* to the defective the right to propagate his tainted species These founts are alcoholism, syphilis, tuberculosis, epilepsy, insanity, and gonorrhea" He then considers these several "founts" in detail and concludes with a bill prepared by him for the Legislature of Pennsylvania, with a view to securing such State laws as will prevent the issuing of a marriage license to any person "contemplating marriage unless he or she shall have received from the persons so appointed a certificate setting forth that such applicants are free from the following diseases, any of which shall be deemed sufficient cause for refusing a license Syphilis, gonorrhea, dipsomania, hereditary insanity, true insanity, or insanity resulting from vice, epilepsy, hereditary consumption or tuberculosis" He says that the State of Texas already prohibits the marriage of epileptics, Massachusetts, the epileptic, alcoholic and syphilitic, while Ohio has a similar law to the one proposed, and the same bill has been introduced in the Maryland Legislature.—*Jour. Amer. Med Assoc.*

THERAPEUTICS AND PHARMACOLOGY.

Malarial Disease Prevented by Small Doses of Quinine.

LAVERAN reviews the reports of many medical officers in charge of the health of bodies of European and American men exposed to severe malarial influences. His conclusion is that quinine usually proves very potent in preventing or at least mitigating malarial disease, even in very unhealthful localities. Against its use the objection has been made that daily administration of this drug induces attacks of indigestion, and that quinine becomes less potent in a given case if administered constantly, the system becoming habituated to it. Yet these objections are not sound. A dose of from one-fifth to three-tenths of a gram a day can be employed for months with impunity. Quinine destroys the causative microbes by its power as a parasiticide. The microbes of paludism that chance to get into the blood of a person who has been treated preliminarily by the small preventive doses, find it a medium wholly or quite unfavorable to their development. At the most, they develop only with difficulty. The daily dose should not exceed three-fifths of a gram nor be less than a seventh of a gram. Some prefer a dose of one gram thrice weekly. To procure a rapid absorption, the hydrochloride is preferable to the sulphate, and is better supported. The best time to take quinine is at meal-times. The best way is to dissolve it in wine, although cachets or pills suffice. If added to coffee, that precipitates a portion of the quinine.—*N. Y. Med. Jour.*

Peculiar Susceptibility of women to the Toxic Action of Sulphonal.

POLLITZ relates the case of a woman who was treated very successfully for a puerperal mental affection with sulphonal given to the amount of twenty-two and afterward fifteen grains daily for more than a year, with frequent interruptions of the treatment for weeks at a time. Finally symptoms of sulphonal poisoning appeared—deep-red coloration of the urine and diminution in the amount of that secretion, obstinate constipation, and loss of appetite. The case ended fatally, but it is remarkable that periods of notable improvement in the woman's condition preceded her death. At the *post-mortem* examination there was found extensive disease of the secernent epithelia of the urinary tubules. POLLITZ calls attention to the fact that the recorded cases of sulphonal poisoning have been in women for the most part. Among twenty-one cases, SCHULZ found that twenty were in women, and all observers have found that the victims of sulphonal poisoning were anæmic to a certain degree. The inference seems reasonable, POLLITZ thinks, that certain conditions of the blood, such as chlorosis, have a direct connection with the supervention of toxic phenomena under the use of sulphonal.—*N. Y. Med. Jour.*

Strychnine in Alcoholism.

FEDEROFF who has employed strychnine in the treatment of twelve cases of alcoholism has noted the following results: (1) The catarrhal symptoms subside more rapidly than they do in the cases in which the patient is deprived of alcohol and submitted to a strict regimen. (2) The neurasthenic attacks are favourably influenced by the strychnine, and the insomnia, as far as it is dependent upon nervous causes, soon disappears, the strychnine acting better in this respect than the usual hypnotics. Sleep becomes normal at the end of five or six days. (3) The senseless anger and the irritability which characterize alcoholics progressively subside. (4) The depression of spirits gives way to a more tranquil state of mind and the patients become courageous. (5) Other morbid symptoms, particularly the migraine, also pass away. (6) Unfortunately, the chief symptom, the craving for drink, is not influenced to any marked degree. "So that," says the writer, "though one must acknowledge the good effect of strychnine upon the nervous phenomena of alcoholism, it cannot be spoken of as a specific for this disease."—*Med. News.*

To Cure Itch in Two Hours.

EMPLOY fresh calcium sulfuret made as follows:—

Sulfur (flour)	...	3 ozs.
Quicklime	...	6 ozs.
Water	...	2 pts.

Boil together till combined, then allow to cool and settle. Decant and preserve in hermetically sealed bottles.

Rub patient all over with soft soap for half an hour, then place in a tepid water bath for another half-hour. Next rub over with the solution and allow it to dry on the skin for a quarter of an hour. Complete by washing in the bath.—*Med. Age.*

Leprosy.

R	Ol. chaulmoogræ	...	2-5
	Ol. amygdal. dulc.	...	9-10
	Gummi arab.	...	15
	Syr. aurant. cort.	...	30
	Aquæ laurocerasi	...	5
	Lactis	... q.s. ad.	125

M. To be taken during the day in five portions.—*N. Y. Med. Rec.*

Death to Corns.

R	Ext of cannabis indica	...	1
	Salicylic acid	...	10
	Oil turpentine	...	5
	Glacial acetic acid	...	2
	Cocaine (alkaloidal)	...	2
	Collodion	... q.s. ad	100

M. Apply a thin coating every night, putting each coating on top of the preceding one, until finally the whole drops off, bringing the indurated portion, and frequently the whole corn, with it.—*N. Y. Med. Rec.*

For the Removal of Superfluous Hair.

R	Tinct. iodi	...	3 parts
	Ol. terebinth	...	6 parts
	Ol. ricini	...	8 parts
	Spiritus	...	48 parts
	Collodii	...	100 parts

M. Sig. The affected part is to be painted with this mixture once daily for three or four successive days.

When the collodion scab is removed the hairs will be found imbedded on its lower surface.—PUTTE, *Med. and Surg. Reporter.*

Bronchitic Asthma.

R	Potassii iodidi	...	2 drachms.
	Ammon. carb.	...	1 drachm.
	Tinct. lobeliæ	...	2 drachms.
	Spts. chloroformi	...	4 drachms.
	Vini ipecac	...	1 drachm.
	Infus. senegæ	... q. s. ad.	6 ounces.

M. Sig.: A tablespoonful in a wineglassful of water every four hours.—*Prac. Med. Journ.*

Malaria.

R	Acetanilid.,	...	ʒij.
	Tr. opii deod.,	...	gtt. x.
	Tr. digitalis,	...	gtt. xv.
	Spt. æth. nit.	...	ʒj.

M. Sig. Five to forty-five drops, as to age, before fit or during fever.

Correspondence.

A PROTEST AGAINST PASTEURISM.

To the Editor, "Indian Medical Record."

Sir,—Critics hostile to Pasteurian methods have two advantages: they remind bacteriological doctors that there still remains much to do to dissipate the doubts which persist, not only among a portion of the public ignorant of scientific things, but even in the minds of some doctors who have remained out of the great medical revolution performed by the discoveries of Pasteur; moreover, they attract the attention of the public to the progressive development of these methods, to the genuineness of the results, and to the advantages which humanity derives from them.

A volume would be necessary to pass in review the modern applications of Pasteurism to medical science and surgery This letter being inspired by a critic on the anti-rabid treatment, will have no other object than to show how the proofs of the efficiency of this treatment are simple, clear, and irrefutable.

The duration of the treatment is from 14 to 16 days, and experience has shown that another twelve days was necessary after the last inoculation in order that immunity be established. It follows that a duration of 26 days is necessary for the treatment to have any effect.

This said, let us take a healthy animal and subject it to the anti-rabid treatment If 26 days after we inoculate rabies in its brain, a place where the inoculation is surely and rapidly deadly, the disease will not show itself, the animal will not be troubled by the strongest rabid virus. On the contrary, if we inoculate the brains of dogs not having followed this treatment, they will catch the mortal rabies

The inoculation of rabies by a bite in persons or animals takes place in any part of the skin The virus grows along the nerves and reaches the brain on an average of 40 to 60 days It is proved that it is only when the virus has reached the brain that the disease displays itself

It is thanks to this long period of incubation that Pasteur has been able to find the anti-rabid treatment. If they make a rabid animal bite a healthy animal, and if then they subject the latter to the anti rabid treatment, it will be immunized at the end of 26 days, and the effect of the penetration of the rabid virus by the bite before the treatment will be neutralized This experiment, multiplied on animals before applying the treatment to man is successful 99 times out of a 100

Long experience of the effect of the treatment in the same conditions on man shows its efficacy in proportions as marvellous as on laboratory animals. There are some failures, but their number is remarkably small, and they are noticed almost exclusively among people who began the treatment a long time after the bite, or whose bites, by their seat, their depth, or their multiplicity, belong to the category of those in which hydrophobia shows itself usually in less than 26 days among person not treated.

It is sufficient, in order to convince the most sceptical to place before them the figures indicating the results of the treatment.

At the Pasteur Institute of Paris, from its establishment up to 1897, 20,166 persons have undergone the treatment. Of this total number 96 contracted hydrophobia, *i. e.* 0 46 per cent.

Surgeon-General Thornton reckons that many people are treated without having been bitten by really rabid animals. Let us see then the results in the cases where the animal that bit was surely afflicted with rabies.

Of the 20,166 cases, 2,872 persons have been proved experimentally to have been bitten by rabid dogs. Now, among these 2,872 persons treated after having been bitten by dogs undisputably rabid, 20 only, *i*, *e*., 0 69 per cent. got hydrophobia.

These figures, the authenticity of which everybody can verify, are the best argument in favour of the anti-rabid system.

In the Pasteur Institutes which have multiplied on the surface of the globe, the results are much the same as in Paris. Mortality is greater in those institutes which receive strangers coming from a long distance.

For instance, at the Saigon Institute, of 421 persons treated since 1891, there have been 10 cases of hydrophobia. But it is to be noted that six of those unsuccessful cases took place among strangers who had come from very far and who had begun the treatment 11, 14, 19, 20, 30, and 51 days after the bite.

It would be difficult to quote a more convincing proof of the efficacy of the Pasteur treatment than this difference of mortality between persons who can follow the treatment a short time after they have been bitten, and those who have a long journey to undertake in order to go to the Institute.

At Saigon, of 154 persons who had come from distant countries and who had begun the treatment from 11 to 51 days after the bite, six got hydrophobia, whereas of 267 persons coming from the colony, there were only four cases. After what I have just said I think it useless to refute the extraordinary assertion of Dr. Thornton that the treatment gives hydrophobia. Who will believe that a treatment likely to give hydrophobia gives it only once in a hundred times? It would be necessary in that case to admit then that it is the bite of the rabid animal which preserves man against the treatment which they make him follow afterwards.

There were during the first years of the application of the treatment, scientific men like Professor Potain who have, in good faith, relying on some unsuccessful cases like that of Rascol mentioned by Dr. Thornton, denied the efficacy of the treatment. One after the other have recognised, in the long run, the falseness of the theory which attributed these exceptional cases of hydrophobia, not to the bite of the rabid dog, but to the treatment itself and not a voice rises nowadays in France against the inoculations made at the Pasteur Institute. The mortality by hydrophobia was, in France, before the treatment, from 25 to 30 per cent. among persons bitten by suspicious dogs. This mortality is the same among the few people (a very small number of them) who do not follow the Pasteurian system; the mortality is less than one per cent. among those who are treated.

In every country where a Pasteur Institute is established, one sees the number of known cases of bites by rabid dogs increase immediately. The reason is simply

because, in the absence of any establishment where cases are treated, 99-100ths of persons bitten remain unknown.

For an instance let us take India. Nobody has an idea of the tremendous number of inhabitants who die yearly of hydrophobia in that country. One can have an idea of the number of rabid bites in calculating them according to that which takes place among Europeans living in India. The latter have furnished during the year 1897, 33 clients to the Pasteur Institute in Paris. In admitting that the Indian population is 500 times greater than the European population (this figure has been given to me as a minimum by a high official of the Indian Civil Service) and if the cases of bites by rabid animals take place among them in the same proportion we get, by multiplying 33 by 500, 165,000 natives bitten. It is a certain fact that cases of human hydrophobia take place yearly all over British India and that these cases escape entirely from the statistics.

Yours &c., A DISCIPLE OF PASTEUR.

—:o:—

RAILWAY MEDICAL OFFICERS AND THEIR STATUS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—Appropriate though the remarks on page 426 of your last issue, the grievance can only be remedied by legislation as all railways, state or otherwise, work under P. W. D regulations, which lay down grades as —

(*a*). *Officers*—The Chief Engineer down to Assistant Engineer; the Heads of the Traffic; Loco; Audit, Accounts and Examiner Departments; the Chief Medical Officer and his personal professional Assistants, otherwise known as Medical Officers

(4) *Upper Subordinates.*—Overseers, Foremen, Inspectors of works &c, whether travelling or stationary, and all employes receiving over Rs 100 per mensem, in which list are included Assistant Surgeons in medical charge of Districts or workshops. To this class are relegated Military Assistant Surgeons transferred to civil medical charge of railway district

(*c*). *Subordinates*—Clerks and Office establishment, Hospital Assistants and all employes receiving over Rs 25 and under Rs 100 per mensem

(*d*). *Lower Subordinates*—Compounders, dressers, Jacks, Apprentices, and every one drawing less than Rs 25 and over Rs 8 per mensem.

(*e*). *Menial Establishment*—All posts below Rs 8 per mensem.

At one time the medical help of classes *b* and *c* was exclusively recruited from Hindus and Mahomedans of the Civil Branches of the Indian Subordinate Medical Department, and the Engineer establishment was borrowed from the Public Works Department; but what with congestion of the fields for engineering and medical practice by a rapid increase in trained competitors, and the desire for economy and a more ductile class of men who would not have the right of appeal to Government, the mode of working remained the same; but the choice of medical help was left to the sole discretion of the Construction Railway-Companies' Chief Medical Officer, who preferred to employ non-Government hands; who would be required to pay their own joining expenses and, some two or three months *after* joining, asked to sign an "agreement" in which the Railway Company bound itself to NOTHING beyond a "months notice terminate contract" while the Assistant (?) Surgeon, who is clearly given to understand that he is to attend Railway employes only.—*not* Contractors or their coolies &c.,—and can use his spare time as he likes in private practice, or otherwise, is required to express himself willing to submit to being fined by the District Engineer for neglect of duty, &c.

If he refuses to sign this agreement (?) of which no mention is made in his "letter of appointment" he *must* tender his resignation, serve his notice out and vacating railway quarters patiently wait, for perhaps a year or more as I have done, without yet being paid, the sweet convenience of the Audit Department for settlement of monetary dues.

If he loses patience at the unwarrantable delay and asks ever so politely for early settlement, the fact of his having long since left their employ is ignored and he is turned out of the office with something like "you are too d—d impertinent for a b—y subordinate,' yelled at him, and if he seeks relief through the Courts the railway telegraph is set in motion to boycott him and under the plea of "privilege" attaint him with all sorts of imaginary offences.

Before he signs this agreement form A he is treated like a gentleman, consulted on every sanitary point, *paid* for attending contractors and their men, and the clerks, syces &c, have to wait on him at the railway dispensary, but form A once signed, Lo! Presto!! He becomes a b—y subordinate, who, if his C. M. O. is not a strong man, is at the beck and call, unpaid, of even the officers' (?) private menials or contractors' coolies who insist on his coming to their godowns to attend to trifling ailments If he disobey such a call or stand on dignity or commit the most trivial offence he is heavily fined, and if he appeal against the fine, he is impertinent or insubordinate

With the completion of construction and establishment of "open line" two or three medical districts are condensed into one and the majority of the "construction men" are discharged With open line also this supercilliousness goes on until the Government takes over charge from the working Company, whose officers and employes it is compelled to maintain till their time expires or they otherwise retire.

When the Government placed the State railways under the control of the Inspectors General of Civil Hospitals, and began to man them with Military and Civil Assistant Surgeons who do not belong to the P. W. D., some special provision should have been made for the proper grading of Warrant and other officers, who, unlike the P W. D., have the right of rising to commissions.

These are questions that the Indian Medical Association could well handle, and to support the accuracy of my statements I have a huge mass of documentary and reliable evidence that I would be glad to place at your disposal, with a view to ameliorating the condition of those unfortunates who are compelled to suffer the indignities and superciliousness I refused to submit to.

Yours &c., RAILWAY SURGEON.

THE COMING EUROPEAN CONFERENCE AT ALLAHABAD.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—The following is from the *Eastern Guardian* of Madras :—

"If we are to reckon red-letter days of our Community or Associations they can be counted on less than the fingers of one hand, being so few and divided by wide intervals of time. For the rest, deluded by false hopes, encouraged by promises without even a resemblance to the proverbial pie crust, which is remembered at least to be broken, they have followed these from afar till, mirage like, they have faded from view, leaving the desolation around them more hopeless and realistic than before. Toiling on from year to year, in sanguine anticipation of that better time, to which we all look forward with such yearning desire, they have wrought for their Queen and country, accepting their yoke meekly like draught cattle, unresistingly and unmurmuringly, awaiting in loyal faith the advent of that day, when their rulers, seeing the value of their work, and their indispensable usefulness as departmental chiefs, at least, if nothing more valuable and more eligible, will awake to a sense of propriety and gratitude to reward their zeal and efficiency. Their endurance has been bootless, their recompense broken promises, their patience has been in vain. Hopes deferred, and deferred indefinitely, caused many, sick at heart, to nurse a depression ending in retirement from office with all possible celerity or to adopt an exile in England where justice is done to all indiscriminately. Without leaders, without personal influence, or Parliamentary interest, they have, against their will, been silent, when they have seen younger and less capable imported men put over their heads, usurping praises and prizes which natural justice would demand as their own right, a right, truth and justice and fair dealing have already repeatedly pronounced to be theirs indisputably, but which a Government, that professes to be 'all things to all men,' under pressure, to serve party purposes and please friends in high places, here and at home denied them. Few, indeed, have been our countrymen's scarlet letter days in India. Anglo-Indians and domiciled Europeans have become a drug in the labor market of India, and answering the inexorable law of supply and demand, they must bide their time, till some unforeseen political tide shall flow and their services be needed. At present, we have the native article at our own rates, which we can lower at will, what care we for Anglo-Indians, Europeans or Eurasians? remarks a thrifty paternally beneficent Government. It is only when hard knocks are being dealt out, and deadly weapons are brought into play; only when Baboodom gracefully retires into sulkiness—and very close seclusion, indeed—that we need feel concerned about enticing back Anglo-Indians. We know, like the poor, they are always with us, and in their worst moods a few kind and inspiriting words will easily arouse their enthusiasm, and we may whistle them back at our will. While, the more favored class sucks its sustenance through a pen at its office desk, picking its plums of office with a punkah overhead and a somnolent coolie at the end of a string for diversion, as an exercise of that commendable virtue *patience*, Anglo-Indians must bear the heat and burden of the day. While the native is discussing his *jelabee*, Anglo-Indians may be safely entrusted with field operations to risk and to lose their lives under a patriotic inspiration of duty to their father-land.

No ruler of India has, or cared to, understand the proper control of human passion, or grasped that problem which deals with the right government of men, or how to divert currents of disaffection arising from disappointed ambition, into resourceful streams of sympathy, of loyal confidence, of devoted attachment; or if he has, has ever enunciated this. India, therefore, is not in such a condition of security as we and her best friends would wish to see her. Our good representatives and leaders in conclave at Allahabad when they meet in Conference, should decline to be silenced by a false fear of offending Government, which risk they never will incur by a constitutional representation of grievances. Our rulers will not object to candour, if it be legitimate, or to expressions of caution, if they are discreet. Our delegates should do their duty fearlessly, yet temperately. They will have before them an opening that, if rightly followed up, may lead to an annual Congress which ere long may prove itself a valuable auxiliary to a home agency in London. We urge upon our delegates to insist upon their rights, not as favours, not as concessions, or privileges, but as claims upon a Government for whom our fathers have fought and bled. India was being wrested from British dominion when Anglo-Indians, in non combatant communities, stepped boldly forward, threw themselves into the breach and helped our brave soldiers, shoulder to shoulder, to recover a possession that England felt was slowly yet surely slipping through her fingers and upon which her grasp had been most materially loosened. If we avail ourselves of what this Conference will indubitably offer us—an opportunity for amalgamating our forces, and of meeting annually for purposes of self-protection, the self-preservation of our rights—a great and valuable work will be done and our labours will result in a well deserved triumph. We are perfectly confident in our Madras delegates as they are representative men in the sense of ably dividing this work between them. It is for them to feel that they bear on their shoulders, with the other delegates, the responsibilities of three important Presidencies, whose graver interests up to this juncture were practically ignored and treated as mythical, interests which they have the responsibility imposed upon them of crystalising into national claims and rights to be granted in the Government of India."

Yours &c., ANGLO-INDIAN.

———:o:———

THE RISLEY PLAGUE IN CALCUTTA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—In your issue of November 1st, page 379, you seem to doubt that true Plague has been in Calcutta at all and dubb it "Risley Plague" on the false, self-laid-down, criteria that it has become neither contagious or epidemic. Two facts will, I feel sure, correct your misunderstanding and enlighten your ignorance regarding this matter, and as it is an error into which previous authors have fallen, I may be excused for correcting it. "To make use of so uncertain and variable an attribute as the contagiousness, or the degree of contagiousness, of

an existing fever, as a diagnostic mark of the plague—as some nosologists and other medical writers have done—is obviously illogical and must inevitably serve to mislead. In the case of the malignant Danubian fevers, several of the Russian medical officers denied their pestilential character, on the sole ground that no distinct proofs of "contagion par attouchement" had been observed, while they admitted that all the symptomatic characters of the true plague were present. Many similar instances might be cited where this fallacious test has been employed. Indeed, most of the absurd errors in the history of the disease during the present and last century, may be traced to this very source."—(Milroy).

As a confirmatory fact, I refer you to the Transactions of the Bombay Medical and Physical Society for March, where I elucidated and enunciated "the want-of fresh air theory" of plague; and showed several places where real plague occurred, but was prevented from spreading by removal of tiles, and thus letting in its natural enemies, fresh air and sun-light; and I could adduce numerous confirmatory proofs. Now, Sir, it is conceivable that Mr. RISLEY and Drs. BANNERMAN, DYSON, CHARLES, and the able I. M. S. men in Calcutta are fools; and that you are the paragon of wisdom as regards what constitutes or does not constitute plague;—but it is difficult to believe; nor can I think that these gentleman and others are banded together to fabricate plague, even a "Risley Plague; or foist it on Calcutta.

Having had the unique pleasure of acting as plague preceptor to Drs. BANNERMAN and DYSON I think they, from experience, know plague when they see it; and HAFFKINE'S finding plague bacilli only confirmed their diagnosis, up to which time they were unwilling to pronounce publicly that plague had appeared, and his investigations were only confirmatory of the truth of their conclusions. Drs. BANNERMAN and DYSON require no championing at my hands and it is only to let you see eye to eye with them and me, that I write this note, which may lead you to remove an unmerited slur on upright and reliable investigators; and they have no knowledge of my writing it.

At page 509 of your issue for June 16th, 1898, there is a case of true plague reported by Dr. PANIOTY in and *from* Calcutta and from the clinical symptoms and after 18 years medical experience, and two years special daily plague experience, I am unable to place it nosologically anywhere but under Plague.

If you think it was not plague how do you diagnose it?

It is therefore an epidemic logical heresy—I can call it nothing else—to hold that because such a faithfully clinical type of disease is not epidemic and contagious that it is not Plague.

I can reconcile Dr. PANIOTY'S concluding remarks with what we know now of Plague and resolve the apparent contradiction. The disease is conditioned, and is only infectious where there is want-of-fresh air; due to deficiency of it, filth or overcrowding. I have already adverted to its absolutely non-contagiousness in well ventilated, sanitary, plague hospitals (vide General Gatacre's Report on Bombay Plague and Transactions Bombay Medical and Physical Society); and the very first question Prof. KOCH asked me at Parel in 1897 was "Is plague infectious?" and I answered then as I do now, yes and no !!! All these infectious diseases are conditioned, and what the factors for plague infection are, I hope the above will convince any thinking man; and I am engaged in elaborating this want-of-fresh-air theory still further with historical proofs &c.

It is a mistake to point to the small mortality in Calcutta as a proof that there was no plague, as it is very well known about half the people ran away from the city; and that half composed of those chiefly who believe plague to be due to fate, and therefore they had to bolt into the jungles and elsewhere in pursuit of their *nasib* !!!

That plague did not become epidemic in Calcutta was partly due to this large exodus of susceptible people, thereby diminishing the normal overcrowding; and to the fact that every case was seen early, resolutely dealt with, and the seed in a great measure kept out of the suitable soil. It is but poor recompense to those who succeeded hitherto in this huge and almost impossible task, to detract and hurl jibes at them in the medical and lay press.

Yours, &c., GEO. S. THOMSON.

SATARA, *Capt., I.M.S.*

———·:o:———

THE SO-CALLED PLAGUE MANUFACTURED TO ORDER, IN CALCUTTA—NOT MADE IN GERMANY.

TO THE EDITOR "INDIAN MEDICAL RECORD."

SIR,—The annexed is from *Indian Engineering* and serves to support your views:—"That the Hindoo and Mahommedan portion of our City Fathers, who are proverbially timid and deficient in moral courage, so admirably depicted by the late Sir SYED AHMED, should turn pale at the prospect of standing face to face with such an awful visitation of Providence is 'understandable," but that the Executive of the Corporation should have been scared out of their proprieties and carried along with them the European element, men of light and leading as well, is a sight deplorable to contemplate. Newspapers meanwhile were not idle. Two out of the three Anglo-Indian journals were very busy at the forge—the clang of their hammers could be heard at a distance, long before the solitary "imported case" was noticed here. The native papers behaved very creditably, and did not give way to hysterical fits, but surrendered themselves in a true philosophical spirit, as is their wont, to *kismet*, abiding the course of events in resignation to the will of a higher power. I will not dwell here upon the petty domestic discomforts of the Christian population of this city, or the temporary annoyance caused by the persecution of *ticca-walas* and the consequent prosecution of the *budmash* element; they are the natural results of rowdyism in every community. But what was more serious and important and involved important issues was the threatened dislocation of trade. European merchants were fighting at long odds a conspiracy, while wire-pullers and their myrmidons were manipulating the strings from behind the scenes, making hay while the sun shone and the scare lasted. The whole country was taken aback at the preposterous announcement in which the Govern-

ment showed such a lamentable foresight, "that true cases of plague had been discovered in the town, and that certain protective measures would be enforced to prevent the spread of the disease." The effect of the public declaration of this notice was tantamount to the bursting of a live shell among a nervous, quaking population such as Indian towns possess, and the result may be more easily imagined than described. The unscrupulous ringleaders of disorder were not slow to take advantage of this state of things, and showed admirable powers of organisation and combination to bring the industries of Calcutta to a deadlock. The employers of labour were compelled to engage workmen at four times their ordinary wages, a proceeding which cut both ways; it entailed heavy initial expense upon those who were powerless to resist the demand, thus setting a premium on lawlessness; while those who did not participate in the gain naturally grew morose, sullen and discontented, thus aggravating the evil. Then again the wealthier natives who did not believe in a real plague spent thousands upon thousands in building hospitals; but no amount of money could manufacture patients to fill the wards of hospitals or persuade people to sham disease. If the Government is not above taking warning from the meanest of its subjects, the experience we have gone through recently should teach it not to interfere with their caste prejudices and happiness without taking into confidence the true leaders and spokesmen of the people themselves."

Yours &c., Sub Janta.

Calcutta; *26 October 1898.*

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A CASE OF FATAL MALARIAL FEVER, COMPLICATED WITH SEVERE CONGESTION OF THE ABDOMINAL VISCERA.

To the Editor, "Indian Medical Record."

Sir,—Assistant Surgeon Raj Kumar Kundri, L. M S, requests opinion on the case related by him, under the above heading, in your issue of 16th October I am glad to see that your journal is the medium for such useful discussions, and I beg to submit my opinion to help your contributor It is of course very difficult to pronounce on a case simply from such a brief account of it, for many important signs might have been unnoticed or at least unrecorded But from what I can make out, it appears to strike me that it was *not a case of malaria at all*, but one of Hepatitis running rapidly on to abscess—multiple or simple. The signs therefore pointing to "congestion of abdominal viscera," were really hepatic, and the "dysenteric stools" suggest strongly either, accompanying or associated dysentery, or evacuation of an abscess—it continued for at least five days I notice. This opinion is confirmed by the irregular pyrexia at first the marked and recurrent rigors throughout (no malarial fever has five shiverings a day); while the "remittent fever" type later on, the jaundiced or cachectic appearance, the abdominal symptoms, the red, denuded, (and probably dry) tongue, and the metastatic inflammation of the parotids, all indicate pyæmic infection. It is quite possible to to have an enormous liver abscess without external pointing, or without the typical signs and symptoms detailed in ordinary text books. The cessation of shivering on one occasion after quinine should be disregarded as anything relating to malaria—we are often led into error by our *post hoc propter hoc* arguments. In all probability the quinine treatment had as little to do with the case as the Ipecac first administered had to do with arresting the "dysentery." I am afraid we are all too ready with our quinine as we are with our brandy—they are, however, both much the same in their action in inhibiting cell growth and dulling nervous energy. The "reddish papillary eruption" was evidently due to the quinine, confirmed by its disappearance with the accidental omission of the dosage five days later. I think we ought to consider well and carefully before administering quinine so freely in so-called "Remittent Fevers"—many of which not being really "malarial" are not amenable to its action, and do more harm than good.

The proper treatment in this case would have been an exploratory aspiration in one or more suspicious regions in the liver, and if pus were discovered, free opening and drainage.

We however are always learning, the very best of us commit errors, some indeed, of the most learned professors have committed the gravest ones—for it is human to err, and we are after all only ordinary human beings I trust my suggestions may prove of use, for I only give them for what they may be worth.

Yours &c., Captain, I. M S.

———:o:———

MADRAS HOSPITAL ASSISTANTS ON PLAGUE DUTY.

To the Editor, "Indian Medical Record."

Sir,—As I was reading in a Plague Camp, your Articles "How *Professors* are made in India" and "The Subordination of the Medical Administration of India to the Secretariats" in your issue of the 1st instant, I thought over my own position, and wanted to tell you how we Hospital Assistants on plague duty in the Madras Presidency are placed. They say that "No man can serve two masters" but I am now actually serving under *six* masters. I receive *orders* from 6 masters *viz*, (1) the collector who is the District Board President, (2) the Sub Collector who is the Taluq Board President, (3) the special plague officer (who is a military man but not a medical man), (4) the additional medical officer, a young recruit from England, (with nothing but stinking pride in him) on plague duty, (5) the Tahsildar to whom I am a subordinate as per Section 275 of Civil Medical Code of 1898 and (6) the district medical and sanitary officer. Of the six, three have got the power to fine me on the spot and the other three to recommend me (which is as sure and certain as fining) for a fine. Thus, I dare not disobey the orders of any of the above. A salt peon or a police constable under me, could be punished *only* by the head of his department, and that too after his explanation is duly recorded and the charges against him duly enquired into.

One of the above said officers *orders* the Hospital Assistant to issue passports to such and such a class of passengers, whereas another officer *orders* him not to do so. One countermands the orders of the other and so the poor Hospital Assistant is in a fix. A few Hospital Assistants, unable to bear the worry and annoyance given

by so many superiors have already resigned their posts; and those that could not do so, on account of long service, &c. are very much dissatisfied. But, dear Sir, how long are we to be in this state? As a class we are hard working and patient. But the Government is adding insult to injury. We are kicked about like footballs, from one end of the presidency to the other end, on plague, cholera, famine and such like dangerous duties, with a pay scarcely sufficient to enable us to dress and live like respectable officers. The last straw to break the camel's back is to serve under so many non-professional officers "heaven born" and otherwise, at the same time. The fate of a slave is better than ours.

Besides the above, there are other minor *superior* officers such as the Manager of the Surgeon General's Office, Head clerks of District Medical and Sanitary Office, District Board Office and Taluq Board Office, Vice-Presidents of District and Taluq Boards (for these pass our bills) &c. &c., to whom we have to make puja.

Oh! Lord when will the day come when the Medical Department will be an independent one!

Can you or any of your numerous readers suggest a remedy for this state of affairs!

Yours &c., HOSPITAL ASSISTANT ON PLAGUE DUTY.

———:o:———

FALSE REPORTS. AN APPEAL TO THE P. M O. H. M'S FORCES IN INDIA.

TO THE EDITOR, "INDIAN MEDICAL RECORD"

SIR,—I wish to have your advice as to what I am to do to obtain a hearing from the P. M. O. India, as I know that through simple spite the S. M. O. of the Hospital, the P. M. O. Bombay District, and the P. M. O Bombay, have one and all, by means of (false) demi-official and private reports been put against me by a certain medical officer, about whom I once wrote to your paper regarding his having kept me in arrest for 3 days. Being unable to frame a charge against me, he released me without having even so much as reported it to the Commandant of the station or P. M. O. After the article appeared in the *Record*, an enquiry was started by the P. M. O. India, and the facts reported, resulting in his being found fault with. Ever since then I have led a miserable life and several times he has so far forgotten himself as to expose his actual feelings by saying "I'll not rest until I have you tried" "I'll place a watch over you to see how often you leave the hospital to attend to private cases" &c., and he has never lost a chance to report me to the S M. O., very often without a cause.

The last time he had the opportunity of attending the P. M. O. at his inspection visit, the S. M. O. being ill, and the result was that I was very soon after transferred to——although I informed the P. M. O. that I had served in——for two years. Such a thing has never been known, and as nothing official has gone in against me, I have every right to know why I am sent to this cruel station a second time. I therefore request you will kindly instruct me how to act or let me know whether I can get assistance from the I. M. Association of which I am a member. I am sure that if the matter is brought before the P. M. O. India or other higher authority, I will get satisfaction. The chief reason for my removal being desired from———, was that I had the whole run of the private work, yet not once did I neglect my legitimate duties for my private practice. Even if I had committed myself in any way, the proper course would be to place me under arrest, and go through the proper channel, and you may be sure that the M. O. who has acted against me all this time would not have lost the chance had he got it. Trusting dear sir you will help me in this. I have had 15 years' service and have a family of five children.

Yours &c., MILITARY ASSISTANT SURGEON.

(We trust as the P. M. O. of India knows this case, he will very graciously enquire further into it.—ED., I. M. R.)

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CIVIL ASSISTANT SURGEONS ARE NOT SUBORDINATES.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

SIR,—It is becoming more and more a practice with the various Local Governments and heads of offices generally, to consider the Civil Assistant Surgeons as subordinates and to treat them as such. The Government of India set the example in this matter by being the first to use the word 'subordinate' when dealing with that class of servants in their official correspondence and resolutions, and the other Governments have, as was to be expected, followed suit. The Government of India have gradually by a slow process of obliviation (conscious or unconscious, it matters not which), forgotten altogether that, according to the *Medical Code*, the Civil Assistant Surgeons constitute a distinct service, ranking next to the L. M. S., the Military Assistant Surgeons together with the Hospital Assistants, forming the 'subordinate' service of that code. The head of the medical department whom it behoves to rectify this lapse on the part of the Supreme Government allowed the matter to slide, and the Civil Assistant Surgeons, quiet and meek as they are, submitted passively to this fresh humiliation added on to their already full cup of sorrow, although they feel the depreciation keenly and are very sore about it. The bracketing of the three locally recruited medical services under the common designation of "subordinate," however convenient it may be from a government point of view, is decidedly derogatory to the Civil Assistant Surgeons, who as *Gazetted* officers holding *independent* charges, do not come under this denomination. It must also be remembered that the Civil Assistant Surgeons are all University graduates and that as such, they have a recognized academical and social status, as is evidenced by the fact that they are entitled to attendance at Government levies and receptions It is, however, not yet too late to set matters right, and it is to be hoped that the present head of the Medical Department will take the necessary action to restore the Civil Assistant Surgeons to the position they are entitled to by right, especially now that the Government of India have been pleased to improve their prospects by increasing their pay and rendering them eligible to Civil Surgeoncies.

Yours &c., AN OBSERVER.

SHAMEFUL PROSTITUTION OF MEDICAL MEN TO QUACKS AND QUACKERY.

To the Editor, "Indian Medical Record."

Sir,—Herewith I send a cutting, a nice sample of Quack advertising from a native paper. Please take notice of this in your renowned paper if time and opportunity permits :—

Santan Rakshak.

It is the latest and most wonderful specific liniment discovered by Dr. S. C. Paul, graduate of the Calcutta Medical College and practitioner of twenty-five years' standing, for *preventing* miscarriage, for *causing* a safe and easy delivery and for *preserving* infants during nursing. Moreover by lessening the tension of the gravid uterus, it *allays* the sympathetic disorders of pregnancy such as nausea, vomiting, acidity, heart burn, flatulence, &c., &., No family man should be without a bottle of this liniment which is for external application only.

Unsolicited Testimonials.

Dr. G. Manook, M. B., (Edin.) Surgeon, Calcutta, writes :—"I have to report favourably of my trials with your "Santan Rakshak" I have given your specific a fair trial among all classes. The results have been, I am compelled to say, very wonderful in threatened miscarriage and prolonged labour, where direct interference was impossible. I have no doubt others will be as grateful to you as I am. Please send me one dozen phials more and oblige."

Dr. Takini Charn Duti, Graduate of the Medical College, Bengal (G. M. C. B.) and retired Assistant-Surgeon, writes :—"I have much pleasure in testifying to the efficacy of your "Santan Rakshak" which is being used by many respectable persons in cases of difficult labor and threatened abortion with satisfactory and unexpected results."

Rupees 2 per phial ; Packing Ans. 4 ; Postage and V P. charges, Ans. 6.

S. C. Paul, L. M. S.

The Taltollah Medical Hall, 19, Doctor's Lane, Taltollah, Calcutta

Yours &c., M. B. (Calcutta).

———.o.———

SWINDLE THE CIVIL SURGEON.

To the Editor, "Indian Medical Record."

Sir,—Will you or any of your numerous readers kindly express an opinion on the following case.

A Medical Officer of one of the districts in the Provinces was directed by the Collector to examine a lad whose estate is in the Court of wards, as to the lad's physical fitness to go to a boarding school. After the examination was conducted and reported, the doctor suggested a fee of Rs 16 for his services, the Collector demurs to pay and states "he is of opinion that the estate of the person being under the Court of wards, no fee is due to the Civil Surgeon for his medical examination at the instance of the Collector, and asks the Civil Surgeon to state any precedent and point out the rule under which the fee due is Rs. 16."

Is a person whose estate is under the Court of wards entitled to free medical advice, if such be ordered by the Collector, if so, under what authority, bearing in mind that such person is not a Government servant ?

Is not Rs. 16 considered the recognised amount for all such services rendered by a Civil Surgeon ?

It seems to me another case where some one wants to "do" the Doctor.

Yours &c., A Subscriber.

(The Collector has no authority to order a Medical Officer to attend to on any one but a Government servant. For attendance ordered by the Collector on any other person, the Medical Officer can hold the Collector responsible for his fee and could recover the same from him in a court of law.—Ed. I.M.R.)

MEDICAL ADVERTISING IN LUCKNOW.

To the Editor, "Indian Medical Record."

Sir,—With reference to certain remarks in the letter subscribed to by "a British graduate," in your issue of the 16th October 1898, I emphatically deny that I had any hand in the preparation and publication of the notice quoted therein The writer of the letter and the editor of the *Indian Medical Record* would have done justice to me and a duty to the profession, if they had referred the matter to me before making any unwholesome remark about a professional brother.

Yours &c., Md. A. Rahim,

Lucknow, *30th November, 1898.*

(We have great pleasure in publishing Dr. M. A. Rahim's letter. The advertisement referred to was so glaring a one and the use of his name in it was so boldly done, and done for more than two months we learn, before we were apprised of the fact, that Dr. Rahim can blame no one but himself, if he was so slow to put a stop to so unworthy a use of his name.—Ed I. M. R.)

Book Reviews.

THE PRINCIPLES AND PRACTICE OF MEDICINE

By William Osler, M.D., LL.D., F.R.S., F.R.C.P

Physician in-Chief to the Johns Hopkins Hospital Baltimore ; Professor of Clinical Medicine, University of Pennsylvania ; &c., &c.

(Publisher : Young J. Pentland, London and Edinburgh p.p. 1181.)

In every respect the work before us may fairly be characterised as a most admirable text book, which in all its sections maintains its thoroughly practical character as a reliable guide in diagnosis, symptomatology, and treatment. This third edition is brought completely up to date, the articles on Beri-Beri, Dengue, the Bubonic Plague, and other diseases having either been re-written or being entirely new. There can scarcely be any room for doubt that this excellent manual will continue to meet with the cordial reception it undoubtedly deserves on both sides of the Atlantic.

GOOD READING ABOUT MANY BOOKS, SELECTED BY THEIR AUTHORS. THIRD YEAR 1897-98.

(Publisher : T. Fisher Unwin, London ; p.p. 397.)

This publication represents the high-water mark of the advertising ingenuity of our own times, and the interprising publisher deserves to be warmly congratulated in regard to the compilation turned out. Extracts are given from a number of attractive works on sale by Mr Unwin, the article or chapter selected being usually preceded by the writer's portrait and followed by his facsimile-autograph in each case. The antique head and tail-pieces, too, add somewhat to the excellent get up of the book.

HARVEY AND DAVIDSON'S SYLLABUS OF MATERIA MEDICA.

By William Martindale, F.L.S., F.C.S., &c.

(Publishers : H. K. Lewis, London ; p.p. 64, Price 1s.)

The present is the tenth edition of this popular little pocket syllabus which is extensively used by students at home. The arrangement followed in the Tables &c., it contains, is certain to prove exceedingly valuable to all of those who use it.

Government Medical Gazettes.

GOVERNMENT OF INDIA.

Surgn.-Genl James Cleghorn, M D., C S I., Bengal, retires from 25th Oct. 1898.

Lieut.-Col. James Joseph Moran, M.D., Madras, retires from 10th Oct 1891.

Capt. William Carr Sprague, M D., Bombay, resigned the service, 29th Oct. 1898.

Asst. Surgn. J. A. Lobo, Civil Dispy, Bushire, furlough for twelve months, from 6th Nov. 1898.

Asst. Surgn. J. Fraser, to Civil Dispy., Bushire, from 6th Nov. 1898.

To be Surgn.-Col.

Brig. Surgn.-Lieut.-Col. David Sinclair, Madras, 12th Feb. 1896.

Surgn Lt.-Cols to be, Brig. Surgn.-Lt.-Col.

MADRAS.—Henry FitzLawrence Plunkett French Esmonde-White 31st Oct. 1897

William Richard Browne, M.D, 1st March 1898.

Arthur Henry Leapingwell, 1st March 1898.

Hazlett Allison, M.D., 30th June 1898.

Thomas James Hackett Wilkins,14th July 1898.

BOMBAY.—John Philip Greany, M.D, 9th June 1898.

Surgn. Lieuts. to be Surgn. Capts.

BENGAL.—John Stephenson, Frank Needham Windsor Walter Barrie Turnbull, Ernest Edwin Waters, Asher Leventon, Philip Francis Chapman.

MADRAS.—Frederick Linton Blenkinsop, Edmund Moritz Illington, Thomas Edgar Watson, Charles George Webster.

BOMBAY.—Alfred Hooton, Arthur Frederick William King, Robert Frazer Standage, Andrew Armstrong Gibbs, Henry Alfred Forbes Knapton.

BENGAL GOVERNMENT.

Capt. A. F. Stevens, I.M.S, to have medl. charge civil station of Dinapore, from 11th Nov, 1898.

Asst. Surgn. F. J. Daley, Medl Officer, Plague Observation Camp. Khurda Road Stn. privilege leave from 6th to 30th Nov. 1898,

Dr U. C Mukerjee, Civil Medl. Officer of Malda, to Pabna.

Kumar Bhobendra Narayan, Civil Medl. Officer of Pabna, to Malda.

Dr. J. A. Fink, Offg. Civil Medical Officer of Purnea, to act as Civil Medl. Officer of Malda,

The late Dr. P. M, Gupta, Civil Medl, Officer of Faridpur, was on privilege leave from 13th to 24th Nov. 1898.

Asst, Surgn, Kasi Nath Ghosh to have med. charge, Civil Stn, of Faridpore.

To be Senor Asst. Surgn. with hony. rank of Capt. Richard Michael Blaker, 17th Feb, 1898,

To be Senr. Asst. Surgn. with hony. rank of Surgn. Lieut. Isaac Burnett, 17th Feb. 1898.

PUNJAB GOVERNMENT.

Lieut.-Col. A Deane, M.D. I.M.S. (Bengal), to officiate as Inspr.-Genl. of Civil Hosps., Punjab.

Hosp. Asst. Nuckal Sain resumed charge, 5th Division, Chenab Canal, 3rd Nov. 1898.

Hosp Asst. Narsingh Das, Alipur Dispy., Muzaffargarh Dist., passed the English Qual. Exam. entitled to the higher rate of the pay of his grade from 1st Oct. 1898.

Hosp. Asst. Sham Lal, Police Hosp. Dera Ghazi Khan, having passed the English Qual. exam. entitled to the higher rate of the pay of his grade from 15th Nov. 1898.

Hosp. Asst. Ibrar Hussain on special plague duty Hoshiarpur Dist. from 17th Feb. to 15th July 1898.

Hosp. Asst. Ganesh Das resumed charge Anandpur Dispy., Hoshiarpur Dist, 13th Nov. 1898

Asst. Surgn. Miran Baksh Utarid, to do genl. duty, Maghiana Dispy. Jhang Dist., 11th Nov. 1898.

Hosp. Asst. Sunder Singh, Police Hosp., Umballa, one month's privilege leave, from 6th Nov. 1898.

BOMBAY GOVERNMENT.

The following transfers are sanctioned :—

Asst. Surgn. Arthur Victor Marshall King, from House of Correction, Common Prison, Bombay, to Bai Motlibai and Sir D. M. Petit Hospitals. Bombay.

Hosp. Assts.—Bhawaniprasad Bhagwanlal Kaweshwar, from C. J. Ophthalmic Hosp. Bombay, to House of Correction and Byculla Schools, Bombay, 23rd Nov 1898, Amru Govind, to Genl. duty, Bombay, from 6th Sept 1898, Ramrao Shamrao, from Civil Hosp. Karwar, to Observation and Segregation Camps Tadri, Kanara, 13th Sept 1898, Balwant Succaram Vaidya, from Genl. duty, Bombay, to Dispy. Bhatkal, Balkrishna Vithal Chati, from Civil Hosp. Satara, to Plague duty, from 18th Oct. 1898, Vishan Balvant Bhide, from Civil Hosp Satara, to Plague duty, from 13th Oct. 1898, Chunilal Parbhudas, from Dispy. Halol, to Plague duty, Anand, Ambala Motilal, from Dispy. Ravi, to Plague duty, Ankleswar, Mahomedusuff Dadamiya, from Dispy. Amod, to Plague duty, Ankleswar, Pessumal Wadhumal, from Dispy., Mitti, to Central Prison Hosp Hyderabad, 8th Sept. 1898.

CENTRAL PROVINCES GOVERNMENT.

Hosp. Asstn. Girdhari Lal and Ramashraya Jagannath Dube, doing duty under Civil Surgn. Nagpur, are deputed on Plague duty at Hinganghat, Wardha Dist.

Hosp Asst. Balwant Lakhsman, Police Hosp. Nagpur, to Mowar Branch Dispy., Nagpur dist

Hosp. Asst, Vishnu Hari Date to Police Hosp., Nagpur.

Hosp. Asst. Ashfak Husain, doing duty under Civil Surgn. of Jubbulpore, is temply. appointed to the Sihora Branch Dispy, Jubbulpore dist.

Hosp. Asst. Kaluram, doing duty under Civil Surgn. of Raipur, to do duty under Civil Surgn. of Nagpur.

N.-W. P. AND OUDH GOVERNMENT.

The undermentioned Civil Hosp. Asstn. of the Provincial Staff of the N.-W. P. and Oudh. having passed their Septl. Exam, are promoted to the next higher grade.

Nazir Ali Khan, Wazir Uddin, Enayet Ali, Jagan Nath, Abdul Qadir, Joti Parshad, Rafi Uddin, Muhammad Hamid, Sadiq Ali, Qamr Uddin, Rahim Bakhsh, Sharf Uddin, Cheda Lal, Gobind Ram, Muhammad Azimuddin, Ziab-ul-Hasan, Abdul Rahman Khan, Bamji Lal, and Muhammad Akber.

BURMA GOVERNMENT.

Major A. R. P. Russel, I.M.S, made over, Capt. J. W. Wolfe, I.M S assumed charge, Civil Surgey. of Myingyan dist, 21st Nov. 1898.

Hosp. Asst. Shaik Kurban Ally, three months privilege leave, 23rd Nov. 1898.

Hosp. Asst H. C. Banerjee, relinquished charge, Civil Dispy. Ma-ubin, Tongwa dist 21st Nov. 1898.

Hosp. Asst. K. Kanaren assumed charge, Civil Dispy. Maubin, Thongwa dist, 21st Nov 1898

Hosp. Asst Jai Lall assumed charge, Civil Hosp, Prome, 23rd Nov 1898.

Hosp. Asst. Shaik Kurban Ally made over, and Hosp. Asst. Jai Lall assumed charge, Jail Hosp. Prome, 23d Nov. 1898

Hosp. Asst. F. A. Jeyceala Rao assumed charge Civil Hosp. Pantana, Myaungmya dist. 16th Nov. 1898.

ASSAM GOVERNMENT.

Hosp. Asst. Krishna Prasad Sen, a Supery. Lakhimpur dist. to med. charge Bomjur Mily. Police outpost, from 18th Oct. 1898.

Hosp Asst. Prabhat Chakravarti, Borjoha Dispy., Nowgong dist, to Dubaka Dispy. from 15th Oct. 1898.

Hosp Asst. Rajendra Prasad Das, Dubaka Dispy., Nowgong dist. to Borjoha Dispy. from 31st Oct 1898.

Hosp. Asst, Mahendra Chandra Chakravarti, a Supery, Lushai Hills dist. to Sylhet dist, a supery. for duty under Civil Surgn. from 11th Nov 1898.

DOMESTIC OCCURRENCES.

The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.

BIRTH.

SHORT-EVERS.—On the 17th November, at Madras, Mrs. Ida Bowie Evers, L.R.C.P. and S. E. D., the wife of Assistant Surgeon J. Short-Evers, Assistant to the District Medical and Sanitary Officer, Palamcottah, of a daughter.

DEATH.

WILSON.—On the 4th December, 1898, at Shajehanpur Dorothy Barnett, the only child of Major and Mrs. J. B. Wilson, R.A.M.C., aged 1 year and 2 months.

NOTICES TO CORRESPONDENTS.

Bella M. B. (Eden Hospital).—We repeat your query "who gave little Cecil [illegible] eye." Cissy knows, ask her.

Medical College Hosp [illegible] student writes:—"Professor Murray thinks of inv[illegible] some new splints for the treatment of fracture [illegible] the thigh. They will be an improvement on Liston's." We expect also to hear of some startling suggestions on trephining.

L A. L. (General Hospital).—We are strongly of opinion that blood for purposes of bacteriological examination should be taken from any portion of the *surface* of the body. To draw blood from the spleen is to risk the health and even the life of the patient, and it is a serious responsibility for a hospital surgeon to advise such an experiment. To ask an ignorant mother (ignorant of course in medical matters) whether she has any objection to allowing blood to be drawn from her child's spleen for such examination, and to obtain her sanction, is but poor justification even in the eyes of the law. The experiment is not unattended with danger and the hospital surgeons know this and herein lies the criminality.

You state that Dr. Ronald Ross performed this experiment. Ask Dr. Ross if he would perform a similar experiment on his own child. The curse of experimenters is that they are often inhumanly cruel and heartless.

S. K. C. (Medal Katti).—You will find the treatment of eczema fully discussed in the editorial columns of back numbers of the *Record*, look them up.

Secretary, Calcutta Medical School. We note your letter of 10th December, in which you state that the present roll of your school shows 421 students on your lists.

Lt. Col. A. M. C. writes.—"By the way that was a very offensive "skit" you published as a letter from an Assistant Surgeon in the 16th November issue, it had no *raison d'etre*, as it brought forward no grievance."

"It is not wise to encourage men in turning their superior officers into ridicule and I don't think the letter reflects well upon the man who wrote it. I am sure it would be very offensive to some of the R. A. M. C. officers."

We are sorry this "skit" appeared. However we trust our correspondent will take this criticism to heart and refrain from being offensive unnecessarily We apologise for our share of blame in the publication.

S. A. (Rurki).—The review of your excellent book on "Children's Diseases in India" appeared in the *Record* of October, 1891.

N. C. C. (30 Brindabun Chunders Lane, Calcutta).—We shall not interfere any further with Kaviraj N. N. Sen Gupta, unless he continues to be guilty of further unprofessional conduct. Your letter regarding him is filed.

H. K. S.—If one orange sells for one pice, two will cost two pice. It would be unfair to expect two for one pice. This is the principle on which the *Record* prices have been fixed. No one has any right to grumble about them.

Stationery Office, Calcutta.—Mr H B Beames, Superintendent of Stationery (Newspaper and Periodical Branch) writes under date, 3rd November, 1898, No. 1220. "With reference to your letter dated 20th ultimo, asking for information as to the amount of the subsidy paid by the Bengal Government to the *Indian Medical Gazette*, I regret to say that the information asked for cannot be given" This is the secret machinery by which the Bengal Government defrauds the taxpayers, and this is the stealthy system by which it stops enquiry and gags the public press as to its iniquitous doings. This is what is styled Government in India. We call it high-handed tyranny.

A. K. C. (Naihati).—Your case is one for the lawyers of the Indian Medical Association, when you have had an expression of legal opinion thereon, the Council will be in a position to help you.

Calcutta Advertisers, S. O. M. writes:—Here are two advertisements cut from the *Statesman*:—"Dr. S. B. Mitra, B.Sc. M.B. (London), has removed to 36, Wellington Street, Calcutta. Hours of consultation at his residence, from 7 to 8 A.M. (free), and 4 to 5-30 P.M. (charged).

"Miss Maud S. Martin, M.D., late House Surgeon, Calcutta Dufferin Hospital, having returned from England, will resume private practice. Address: 42, Dhurrumtollah Street."

Local Practitioner (Hyderabad, Sindh), writes:—"I beg to inform you that the private practice of the medical practitioners here is quite spoiled by the Veterinary Surgeon employed by the Local Board. I am at a loss to understand how he, who is only a "vet," can undertake to treat human beings, but he actually does so, and all but monopolises the local practice, the rest being swallowed up by the Civil Surgeon and his subordinates, the latter of whom maintain their own dispensaries. We local practitioners are thus being deprived of all practice. Is there no remedy for this state of affairs?"

M. S. (Bombay).—We have expressed our opinion fully and frankly about the bogus diploma selling syndicate of Chicago It had better stop its *objectionable* practice in Bombay or the Government will interfere through the medium of a police prosecution.

Medical Affairs (Simla).—Surgeon-General Harvey is a genius, but we question whether he is willing to burden his mind or body with a consideration of the medical grievances of India, as they concern the profession or medical science. He has a great opportunity of doing good for India and the profession, but whether he will avail himself of these opportunities in the masterful style which he is so thoroughly capable of, is quite another matter, we can only hope he will.

S. T. (Hyderabad) writes:—"Having read in your journal of November 16th, an article on the subject of "Abortion by Quinine" &c. I venture to write and ask your advice. My wife has been suffering from remittent fever for some time, and I have tried all the ordinary remedies without any effect, but have refrained from giving phenacetin, antifebrin, &c, being aware of their tendency to cause abortion. Will you or any of your numerous readers kindly inform me as to what might safely be given, during the fever, as well as after it?"

M J. V. (Shahdadpur).—Writes:—"Will you or any of your numerous readers kindly suggest a treatment for the case of a female child aged 2½ years suffering from prolapsus ani. The ani prolapses about 3 or 4 times daily and is easily reducible. Is there no remedy to stop its prolapsing. She suffers from 3 or 4 loose motions a day, but no dyspepsia. Various astringents, antidyspeptic remedies have been tried internally and also astringent applications, such as ointments and suppositories, have been tried but to no effect. There is no history of worms. Can any of my brother readers of the *Record* suggest any thing to cure it and oblige."

W. C. McM. (Jask.)—You have done wisely and well. We wish you success.